Health Systems in Transition
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The Caribbean Netherlands

Health system review

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European Observatory on Health Systems and Policies
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Nathan Shuftan and Ewout van Ginneken (Editors) and Anna Maresso (Series Editor) were responsible for this HiT

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Preface

The Health Systems in Transition (HiT) series consists of country-based reviews that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country. Each review is produced by country experts in collaboration with the Observatory's staff. In order to facilitate comparisons between countries, reviews are based on a template prepared by the European Observatory, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a report.

HiTs seek to provide relevant information to support policy-makers and analysts in the development of health systems in Europe and other countries. They are building blocks that can be used to:

- learn in detail about different approaches to the organization,
- financing and delivery of health services, and the role of the main actors in health systems;
- describe the institutional framework, process, content and implementation of health care reform programmes;
- highlight challenges and areas that require more in-depth analysis;
- provide a tool for the dissemination of information on health systems and the exchange of experiences of reform strategies between policy-makers and analysts in different countries; and
- assist other researchers in more in-depth comparative health policy analysis.

Compiling the reviews poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform data source, quantitative data on health services are based on a number of different sources, including data from national statistical offices, the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF), the World Bank's World Development Indicators and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate review.

A standardized review has certain disadvantages because the financing and delivery of health care differ across countries. However, it also offers advantages because it raises similar issues and questions. HiTs can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situations. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals. Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to contact@obs.who.int. HiTs and HiT summaries are available on the Observatory's website (https://eurohealthobservatory.who.int).

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The Observatory is a partnership that includes the governments of Austria, Belgium, Finland, Ireland, Netherlands (Kingdom of the), Norway, Slovenia, Sweden, Switzerland and the United Kingdom; the Veneto Region of Italy (with Agenas); the French National Union of Health Insurance Funds (UNCAM); WHO; the European Commission; the Health Foundation; the London School of Economics and Political Science (LSE); and the London School of Hygiene & Tropical Medicine (LSHTM). The partnership is hosted by the WHO Regional Office for Europe. The Observatory is composed of a Steering Committee, core management team, research policy group and staff. Its secretariat is based

in Brussels and has offices in London at LSE and LSHTM and at the Technical University of Berlin. The Observatory team working on HiTs is led by Josep Figueras (Director); Elias Mossialos, Martin McKee, Reinhard Busse (Co-directors), Ewout van Ginneken and Suszy Lessof. The Country Monitoring Programme of the Observatory and the HiT series are coordinated by Anna Maresso.

List of Abbreviations

Abbreviation	Dutch term	English term
A&E	-	Accident and emergency
ACM	Autoriteit Consument en Markt	Consumers and Markets Authority
ACP	-	Advanced care planning
Amsterdam UMC	Amsterdam Universitair Medische Centra	Amsterdam University Medical Center
AVG	Algemene Verordening Gegevensbescherming	General Data Protection Regulation
BES	Bonaire, Sint Eustatius en Saba	Bonaire, St Eustatius and Saba
BIG	Beroepen in de Individuele Gezondheidszorg	-
BSNs	Burgerservicenummers	Citizen service numbers
BZK	Ministerie van Binnenlandse Zaken en Koninkrijksrelaties	Ministry of the Interior and Kingdom Relations
CAS	Curaçao, Aruba en Sint Maarten	Curaçao, Aruba and St Maarten
CBG	College ter Beoordeling van Geneesmiddelen	Medicines Evaluation Board
CBS	Centraal Bureau voor de Statistiek	Statistics Netherlands
CCAF	.	Certification Centre for ACT and F-ACT
CIBG	Centraal Informatiepunt Beroepen Gezondheidszorg	Central Information Point for Healthcare Professions
CMC	-	Curaçao Medical Center
CAN	-	Nursing assistant
CT	-	Computerized tomography
DCHA	-	Dutch Caribbean Hospital Alliance
DNR	-	Do not resuscitate
DSM-V	-	Diagnostic and Statistical Manual of Mental Disorders, 5th edition
DuCaPHEN	-	Dutch Caribbean Public Health Expertise Network
EPA	-	Entrustable Professional Activity
EU	Europese Unie	European Union
EU NL	-	European Netherlands
F-ACT	-	Flexible Assertive Community Treatment

FFS	-	Fee-for-service
FTE	-	Full-time equivalents
GDP	-	Gross domestic product
GGZ Nederland	Geestelijke Gezondheidszorg Nederland	Dutch Association of Mental Health and Addiction Care
GP	-	General practitioner
HTA	-	Health Technology Assessment
HOH	-	Horacio Oduber Hospital
ICP	-	International Comparison Program
ICPC	-	International Classification of Primary Care
IGJ	Inspectie Gezondheidszorg en Jeugd	Health Care and Youth Inspectorate
IHRs	-	International Health Regulations
IT	-	Information technology
JenV	Ministerie van Justitie en Veiligheid	Ministry of Justice and Security
JGCN	Jeugdzorg en Gezinsvoogdij	Youth Care and Guardianship Council
JOGG	Jongeren op Gezond Gewicht	Youth at healthy weight
LPN	-	Licensed practical nurse
LTC	-	Long-term care
MBO	Middelbaar beroepsonderwijs	Secondary vocational education
MHC	-	Mental Health Caribbean
MRI	-	Magnetic resonance imaging
MW	Medische Wetenschappen	Medical Sciences
NCDs	-	Non-communicable diseases
NOW	Nederlandse Organisatie voor Wetenschappelijk Onderzoek	Dutch Research Council
NZa	Nederlandse Zorgautoriteit	Dutch Healthcare Authority
PCC	-	Primary Care Caribbean
OCTs	-	Overseas Countries and Territories
OCW	Ministerie van Onderwijs, Cultuur en Wetenschap	Ministry of Education, Culture and Science
OECD	Organisatie voor Economische Samenwerking en Ontwikkeling	Organisation for Economic Co-operation and Development
OOP	-	Out-of-pocket
PAHO	-	Pan American Health Organization

POH-GGZ	Praktijkondersteuner Huisarts Geestelijke Gezondheidszorg	General practice mental health worker
PPP	-	Purchasing power parity
QMBC	-	Queen Beatrix Medical Center
Raz BES	Regeling aanspraken zorgverzekering BES	BES Healthcare Insurance Claims Regulation
RCN	Rijksdienst Caribisch Nederland	National Office for the Caribbean Netherlands
RIVM	Rijksinstituut voor Volksgezondheid en Milieu	National Institute for Public Health and the Environment
RN	-	Registered nurse
RVS	Raad voor de Volksgezondheid en de Samenleving	Council for Public Health and Society
SCP	Sociaal en Cultureel Planbureau	Netherlands Institute for Social Research
SEHCF	-	St Eustatius Health Care Foundation
SHI	-	Social health insurance
SMMC	-	St Maarten Medical Center
SZW	Ministerie van Sociale Zaken en Werkgelegenheid	Ministry of Social Affairs and Employment
UPZ	Uitgavenplafond Zorg	Healthcare Expenditure Ceiling
US$	-	United States dollar (currency)
VOMIL	Departement van Volksgezondheid en Milieuhygiëne	Department of Public Health and Environmental Hygiene
VWS	Ministerie van Volksgezondheid, Welzijn en Sport	Ministry of Health, Welfare and Sport
Wbsn-z	Wet gebruik burgerservicenummer in de zorg	Use of Citizen Service Numbers in Healthcare Act
Wegiz	Wet elektronische gegevensuitwisseling in de zorg	Electronic Data Exchange in Health Care Act
Wet BIG	Wet op de beroepen in de individuele gezondheidszorg	Healthcare Professionals Act
WGBO	Wet op de geneeskundige behandelingsovereenkomst	Medical Treatment Contracts Act
Wkkgz	Wet Kwaliteit Klachten Geschillen Zorg	Healthcare Quality, Complaints and Disputes Act
Wlz	Wet langdurige zorg	Long-Term Care Act
Wmo	Wet maatschappelijke ondersteuning	Social Support Act

ZiNL	Zorginstituut Nederland	National Healthcare Institute
ZON	ZorgOnderzoek Nederland	Care Research Netherlands
ZonMw	-	Netherlands Organization for Health Research and Development
ZJCN	Zorg en Jeugd Caribisch Nederland	Department of Care and Youth Caribbean Netherlands
ZVK	Zorgverzekeringskantoor	Health Insurance Office
Zvw	Zorgverzekeringswet	Health Insurance Act
10/10/10	10. Oktober 2010	10 October 2010

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Abstract

This analysis of the health system of the Caribbean Netherlands reviews developments in governance, organization, financing and delivery of care, health reforms and health system performance on the islands of Bonaire, St Eustatius and Saba (the BES islands). Since the dissolution of the Netherlands Antilles in 2010, residents of the BES islands live in special municipalities of the Netherlands, each with its own government (public entity).

The Ministry of Health, Welfare, and Sport (VWS) in The Hague, through the Department of Care and Youth Caribbean Netherlands (ZJCN), oversees the health system and the mandatory, centrally financed health insurance scheme. The publicly-funded system had per capita spending on health (US$ 6 471) below that of the European Netherlands (US$ 6 729) in 2022; without logistical costs of referrals (accommodation and ground transportation, flight tickets, per diem allowances), per capita health spending on the BES islands was US$ 5 895, though these levels have not been adjusted for purchasing power parity.

Cost sharing within the public system is low, but voluntary insurance for uncovered services is unavailable, and data on out-of-pocket payments is unknown. Limited on-island care capacity necessitates many off-island referrals to cross-border contracted providers, which are fully covered by insurance.

Challenges include recruiting and retaining qualified staff, although an agreement with Amsterdam University Medical Center helps provide specialist care in the hospital on Bonaire. Besides primary and secondary care, there are long-term, dental, and mental care facilities. Each island has at least one pharmacy, and protocols are in place for off-island care needs. The next development stage aims for an “equivalent” level of services as in the European Netherlands, improving from the “acceptable” standard set post-2010.

Poverty is higher on the BES islands than in the European Netherlands. Health risks include limited access to fresh foods, physical inactivity, and behaviors like alcohol and tobacco use, highlighting the need for better disease prevention and health promotion. While life expectancy at birth was higher on the BES islands in 2019 than in the European Netherlands, data on health outcomes and system performance indicators are lacking. Enhancing evidence-based interventions and comparisons with the European Netherlands, other Dutch Caribbean islands and the wider Caribbean region can support future planning and health system assessments.

Life expectancy in the Caribbean Netherlands is higher than in the European Netherlands and the European Union average, although, behavioral risk factors pose large risks to population health

The Dutch Caribbean islands of Bonaire, St Eustatius and Saba (the BES islands) form the Caribbean Netherlands. Each of the three island is both a public entity (*openbaar lichaam*) and a special municipality (*bijzondere gemeente*) of the Netherlands, one of the four constituent countries (*landen*) of the Kingdom of the Netherlands (the other constituent countries being Curaçao, Aruba and St Maarten). The population of the BES islands was 29 418 in 2023. Of the total population, 24 090 live on Bonaire, with St Eustatius having 3 293 residents and Saba 2 035. The population of the BES islands has increased by nearly 40% since 2011, with rising shares of the population aged 65 and older (13.9% in 2023, though lower than in the European Netherlands). Tourism is a major economic driver, and gross domestic product per capita stood at US$ 27 000 in 2021 (not expressed in purchasing power parity). The unemployment rate across the three islands stood at 4.2% in 2020, but high poverty rates are a problem on the islands.

Average life expectancy at birth increased by more than 6 years between 2000 and 2019, reaching 83.2 years and a small gender gap (83 years at birth for males and 83.8 years at birth for females); residents of the BES islands are expected to live 1 year longer than their counterparts in the European Netherlands, and nearly 2 years longer than the EU average. As of this writing (May 2024), regular collection and analysis of cause of death statistics are not done for the BES islands and thus comparisons to other populations cannot be drawn on this indicator.

Lower levels of physical activity, consumption of alcohol and tobacco, and the challenges of a regular, affordable supply of fresh fruits and vegetables have a strong influence on the health of the population; obesity is also a large concern.

The national level, namely the Ministry of Health, Welfare and Sport, is the steward of the BES islands' health system, having taken on this role due to governance reforms in 2010

The Netherlands Antilles, to which the BES islands previously belonged, were dissolved in 2010. Since then, the Ministry of Health, Welfare and Sport (*Ministerie van Volksgezondheid, Welzijn en Sport*, VWS) in The Hague has been the central administrative body for health system stewardship. Through the Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*, ZJCN), health insurance is provided (via a centrally tax-financed system) for all residents and the ministry plays an active role in contracting care providers and hands-on steering role in the development and implementation of health policy. Enrollment in health insurance is mandatory for all residents, resulting in universal coverage. Given the unique context on the BES islands (i.e. geography, population size, limited provider network, absence of insurers), it was decided not to implement the health system of the European Netherlands.

The ZJCN team in The Hague arranges budgeting and regulations (including the list of entitlements in the benefits package), while the ZJCN team in the Health Insurance Office on Bonaire (ZJCN is also referred to as the Health Insurance Office on the BES islands) works to conclude contracts with providers, including for cross-border care. For the first phase of public administration on the BES islands after 2010, the guiding principle was to create a level that was "acceptable within the Netherlands, taking into account the specific circumstances on the islands". The focus for the health system was to guarantee quality services from, for example, general practitioners (GPs), medical specialists, long-term care facilities, pharmaceutical care and mental health services.

In addition to the ministry, the local governments (the public entities) on the BES islands have been taking on broader roles since 2010. This includes the development of their own public health departments, for which they receive earmarked funding from the ministry for. Other European Dutch ministries based in The Hague, such as the Ministries of Interior and Kingdom Relations, Finance, Justice and Security, Social Affairs and Employment, and Education, Culture and Science likewise have roles in the governance of the BES islands. Other organizations in the European Netherlands also play a role, such as the Health Care and Youth Inspectorate (*Inspectie Gezondheidszorg en Jeugd*, IGJ) to supervise the quality and accessibility of care, as does the National Institute for Public Health and the Environment (*Rijksinstituut voor Volksgezondheid en Milieu*, RIVM), which supports the BES islands with the implementation of public health interventions related to the control of infectious diseases.

Health system financing on the BES islands comes from public sources and has doubled since 2012, but per capita spending is lower than in the European Netherlands

Total public spending on health (including prevention programs, the governance costs of the system, and all outlays to providers) totaled US$ 209.5 million in 2023 (economic activity on the BES islands is recorded in the currency used locally (US$), while transfers to the BES islands are recorded and reported in EUR). Spending has been regularly increased to elevate the standards of care and to accommodate the growing needs of the population, including from new residents. Per capita, the European Netherlands spent more (US$ 6 729) than was spent on the BES islands (US$ 6 471) in 2022. When the logistical costs of referrals are taken out (accommodation and ground transportation, flight tickets (public flights and charters), per diem allowances), per capita spending on the BES islands drops even further to US$ 5 895 in 2022, though these levels have not been adjusted for purchasing power parity.

As the providers on the BES islands themselves do not have full capacities to respond to the health needs of the population, facilitating care on other Dutch Caribbean islands, more broadly within the region, or beyond the region is a major task of ZJCN. Over 90% of referrals from St Eustatius and Saba were to nearby St Maarten in 2023, while 81.3% of Bonaire's referrals went to Aruba and Curaçao. Other referral locations include primarily Colombia and the European Netherlands, or Bonaire for Sabans and Statians.

On average 5 658 patients were referred annually for care off of the BES islands between 2017 and 2023, with notable declines seen in 2020 and 2021 and reflecting the impact of the COVID-19 pandemic on travel as well as suspended care. In 2023, the costs of logistical and medical costs of off-island referrals totaled US$ 43.7 million and averaged US$ 37.9 million between 2019 and 2022 (on average US$ 16.6 million for logistical costs and US$ 21.3 million for medical costs of referrals). Providers on the BES islands receive prospective annual budgets based on their contracts with ZJCN, which grew in volume from US$ 79.3 million in 2019 to US$ 116.1 in 2023.

The range of benefits covered by the mandatory, universal health insurance scheme on the BES islands is similar to the European Netherlands in its breadth, and is stipulated by implementation of the BES Healthcare Insurance Decree (*Besluit zorgverzekering BES*) and the BES Healthcare Insurance Claims Regulation (*Regeling aanspraken zorgverzekering BES*, Raz BES). A list of the 12 general entitlements includes care provided by GPs (*huisartsenzorg*) and medical specialists (*medisch-specialistische zorg*), hospital care (*ziekenhuiszorg*), paramedical care (*paramedische zorg*), dental care (*tandheelkundige zorg*), pharmaceutical care (*farmaceutische zorg*), auxiliary care (*hulpmiddelenzorg*), obstetric care (*verloskundige zorg*), patient transport (*ziekenvervoer*), maternity care (*kraamzorg*) and long-term care (*langdurige zorg*).

Services covered by ZJCN are provided free of charge at the point of service and there is no annual deductible (set at EUR 385 per year in the European Netherlands), though residents pay a health

insurance contribution: 0.5% of income, which is included in the general 30.4% tax rate on income. There is also an income-related employer contribution (11.9%). As poverty is a large issue on the BES islands, healthcare was designed to be as accessible as possible. Some cost sharing remains for medical aids (including glasses, orthopedic shoes), as well as certain services (dental care, physiotherapy). Beyond the health insurance offered by ZJCN and the list of entitlements, residents of the BES islands have no options to purchase voluntary, supplemental coverage, as in the European Netherlands.

Data on expenditure for non-covered care is not available for the BES islands. Residents can pursue second opinions out-of-network or alternative care options outside of what ZJCN readily covers or providers that they contract with. For this, an application to have it covered under Article 10.4 of the BES Healthcare Insurance Decree is necessary, after which ZJCN decides on whether to cover part of full treatment. ZJCN sets a number of criteria before granting permission.

Medical providers on the BES islands include a hospital (Fundashon Mariadal) on Bonaire and medical centers on St Eustatius and Saba.

Fundashon Mariadal providers secondary, long-term, and home care and operates two of the three pharmacies on Bonaire. Through the *jumelage*, or twinning, agreement with Amsterdam University Medical Center, Fundashon Mariadal, a substantial share of specialists is brought on regular intervals to Bonaire to treat residents. Patients in need of intensive care are transferred to another regional hospital using the air ambulance service. There are also six GP clinics and one after-hours clinic for emergency care.

St Eustatius Health Care Foundation and Saba Cares each operate a medical center on their respective islands. GPs are employed directly in both, where they are support staff provide primary care and limited inpatient procedures. Beyond that, visiting specialists come to the islands, or patients are transferred to St Maarten or beyond. In cases of emergency, a medical helicopter stationed on St Eustatius services both islands. Each island has one pharmacy, and there are facilities providing long-term care. There is also a dentist on St Eustatius, while a dentist from Bonaire visits Saba.

Information technology is used for certain medical functions and electronic patient medical files for primary care are facilitated via the software program Promedico, though integration of information systems across providers and communication systems with patients are still at a basic level.

The responsibility for capital investment of on-island providers lies with VWS through ZJCN. This is notably different from how capital investment is managed in the European Netherlands, which since January 2009, has been the responsibility of the providers themselves (and the costs are integrated into providers' care tariffs to generate the financial resources.

Recruiting and retaining health workforce is a challenge on all three islands

Many health workers on the BES islands are recruited from abroad and there can be significant turnover, given the small island contexts. Some local training takes place on Bonaire at Fundashon Mariadal Academy. For health workers trained in the European Netherlands, maintaining a *BIG* (*Beroepen in de Individuele Gezondheidszorg*) registration can be a challenge, as some health workers (i.e. medical specialists) must abide to specific stipulations to maintain their registration – for instance a minimum number of procedures per year, or regular training. This can be a reason for health workers to practice elsewhere. Staff with foreign credentials must be able to demonstrate that they meet quality requirements in terms of education and work experience. BES-based providers

also work to offer continuing education on their own as a major (and sometimes only) incentive to recruit from abroad.

Service provision for residents of the BES islands takes place both on- and off-island, though gatekeeping is in place to guide a patient's entry into the health system

All three islands use a triage system, meaning that a trained nurse evaluates the healthcare need of the patient based on developed guidelines; this is similar to the system in the European Netherlands. Generally, patients cannot access secondary care without a referral. For Statians and Sabans, this includes seeing a visiting specialist, or traveling (first and foremost) to St Maarten. For tertiary care, a medical transfer is required and ZJCN's medical advisors must approve the referral and are tasked with arranging care with contracted providers. Referring physicians must first complete all referral paperwork (digitally) and submit them to ZJCN for approval, and only then do ZJCN's medical advisors evaluate the submission according to the benefits provided under the BES Healthcare Insurance Decree and the Raz BES.

Facilities providing long-term care include the Zorg en Welzijn Groep, Fundashon Kuido pa Personanan Desabilitá and Fundashon Mariadal on Bonaire. The St Eustatius Auxiliary Home Foundation, Chapelpiece and Saba Cares provide these functions on St Eustatius and Saba. Investments are also underway to build out social support facilities. In the context of population growth, the role of informal carers has become more important in the health system and new policies are being explored to provide (monetary) support. Palliative care is provided on Bonaire but overall is still under development.

Mental Health Caribbean (MHC) providers services on all three islands, and is headquartered on Bonaire. MHC is has seen increasing client numbers and budgets over recent years. Existing challenges in providing mental health and addiction care on the BES islands include cultural taboos about mental health, language barriers, the need for greater awareness and the broader social challenges that residents face (such as high poverty levels).

Reforms to the health system aim to strengthen public health research, regional cooperation and local adaptations of European Dutch legislation and regulations regarding health

Until 2019, policies for the BES Islands were based on legislative restraint, meaning European Dutch laws and regulations did not automatically apply. Since 2019, this approach has shifted to the "comply-or-explain" principle, where new European Dutch policies and regulations are expected to be implemented on the BES Islands unless there are valid reasons to opt out. Efforts are also being made to adjust outdated laws and regulations and adopt certain new legal frameworks, though differences between what a law or regulation says and what the capacities are on the BES islands to implement them persist.

The stated focus (from the State Secretary of VWS in late 2022) of the next stage of health system development on the BES islands is to achieve a level of services "equivalent" (*gelijkwaardig*) to the European Netherlands, updating it from the "acceptable" focus post-2010. This should concern both the quality and the scope of the services and involve an active dialogue with local stakeholders, providers, the public entities and others. The principle of "appropriate care" (*passende zorg*) as it applies in the European Netherlands should also apply, meaning working to prevent more expensive care, moving care closer to people's homes and replacing care by other means, such as eHealth.

The founding of the Dutch Caribbean Hospital Alliance in 2021, resulting from major lessons from the impact of the COVID-19 pandemic on all six Dutch Caribbean islands, aims to better facilitate cooperation between the hospitals in the Caribbean part of the Kingdom. Furthermore, the Dutch

Caribbean Public Health Expertise Network has been created to enhance local public health departments' capacity and expertise in communicable disease control and pandemic preparedness, ensuring they are well-equipped to handle future challenges. Health research programming is also being developed to contribute to identifying health needs and planning for good health on the BES islands.

There have been efforts to improve transparency and accountability in the health system, while regular data collection on key indicators to monitor access, financial protection, quality, outcomes and efficiency is still missing

The long-term governance ambitions of The Hague include better ensuring that the BES islands are embedded in Dutch systems and structures, that patient and stakeholder involvement are strengthened and that evidence-based policy-making plays a greater role in the current policy framework. Improving transparency and accountability are also key, and can be seen in the movement to increase the roles of other Dutch and regional Caribbean organizations and the islands' public entities themselves. This includes RIVM, which facilitates the assessment, interpretation and dissemination of public health data.

To more broadly engage in priority settings processes and to compare with the standards of the European Netherlands and/or within the region, the quality of data, as well as protection and management of it, is improving and is becoming more reliable. Data management is critically important in healthcare and for policymakers, however, the regular collection, analysis and publication of key health and health system indicators to understand its performance is still underdeveloped for on the BES islands. The benefit of the small scale of the health system is that a full assessment of whether service provision and coverage fully match the population's needs could be feasible, provided that data in the following areas is available:

- For access, data on unmet needs for medical care (e.g. due to distance, financial reasons or waiting times) that is routinely available in the European Netherlands and for other European countries from population-based surveys is not yet collected on the BES islands.
- For financial protection, ZJCN's insurance has very limited cost sharing, but the lack of voluntary health insurance options for services such as dental care means that residents do bear some out-of-pocket costs. This, plus the extent to which residents travel for self-organized care, is unknown. There may also be some personal costs for approved 10.4 requests.
- For quality, standard indicators on avoidable hospital admission rates for asthma, chronic obstructive pulmonary disease, congestive heart failure, hypertension, diabetes and diabetes-related complications are not available to evaluate the standard of primary care. For hospital care, indicators include in-hospital mortality rates (deaths within 30 days of admission) for admissions following acute myocardial infarction, hemorrhagic stroke and ischemic stroke, as well as cancer survival rates for selected cancers. As the BES health system makes use of hospitals outside the jurisdiction of the Netherlands (both the constituent country and the Kingdom at large), hospital quality indicators come with the challenge of an international effort to develop the data for these indicators.
- For outcomes, key indicators to measure improvements in population health include cause of death data and the prevalence of morbidities, but also on preventable and amenable mortality. This can facilitate further understanding of the effectiveness of the health system as well as targeted public health interventions.
- For allocative efficiency, this report includes an in-depth analysis of the available health financing data from ZJCN (though not fully comparable given the unavailability of purchasing power parity figures for the BES islands). And without information on topics such as hospital

care trends (average length of stay, day care surgeries), the ability to draw conclusions about the technical efficiency is challenging, even in the context that the investments made since 2010 have strengthened on-island provider capacities.

1. Introduction

- The three BES islands, which make up the Caribbean Netherlands, are located in the Caribbean Sea within the Lesser Antilles. Bonaire is the largest and is near Venezuela, while St Eustatius and Saba are closer to the Virgin Islands.
- The BES islands have a long history of Dutch administration. Recent political developments include their integration into the Dutch constitutional system in 2010 and subsequent local governance changes, such as the appointment of a Kingdom Representative and the management of local executive councils.
- Since 2010, following the dissolution of the Netherlands Antilles, the three BES islands have each been both special municipalities and public entities of the Netherlands. Dutch is the official language, but Papiamentu (Bonaire) and English (St Eustatius and Saba) are also native languages.
- The economy is mainly driven by tourism, with other sectors like agriculture, fishing, and government employment also contributing. Economic growth was steady until 2020 when the COVID-19 pandemic caused a significant drop in GDP and impacted tourism income.
- Unemployment and income inequality have remained relatively stable over the years. However, there is a noticeable level of poverty, with 20-30% of the population living below the national poverty threshold in 2021.
- As of 2023, the total population of the BES islands was 29 418, with Bonaire having the large majority (just over 80 %). The population has grown significantly since 2011, particularly among residents born in the European Netherlands. The proportion of older residents is increasing, while the youth population is declining.
- As special municipalities, the BES islands enjoy certain competencies similar to Dutch municipalities but lack some legal frameworks applicable in the European Netherlands. They participate in Dutch national elections and have rights to vote in European Union elections.
- Non-communicable diseases and lifestyle-related health issues are large concerns, including obesity and alcohol consumption. There is a lack of taxation on tobacco and alcohol on some islands, and high food costs and reliance on external supplies make healthy living challenging.
- While people perceive their health as generally good, there are gaps in systematic data collection on mortality and morbidity. Public health reports are mandated for each island, but there is no comprehensive health analysis comparing the BES islands with each other or with European settings.

1.1 Geography and sociodemography

The islands of Bonaire, St Eustatius and Saba are collectively known as the BES islands or the Caribbean Netherlands (*Caribisch Nederland*). They are located in the Caribbean Sea and are part of a group of islands known as the Lesser Antilles (see Fig. 1.1). The Lesser Antilles lie between the Greater Antilles (which include Jamaica, Cuba, Puerto Rico and the island of Hispaniola) and the continent of South America.

Bonaire, the largest island geographically of the BES islands with an area of 288 km^2, is located near the coast of Venezuela and is also one of the Leeward Antilles, a southern subgroup of the Lesser Antilles that also includes Aruba and Curaçao. St Eustatius (21 km^2) and Saba (13 km^2), on the other hand, are separated by only 32 kilometers linear distance and sit further to the north, close to the Virgin Islands (Dutch Caribbean Species Register, 2024; government.nl, n.d.). They are part of the Leeward Islands, a northern subgroup of the Lesser Antilles that also includes St Maarten. Due to is

tropical location, Bonaire's climate stays hot and dry most of the year with a few months of light rain, while St Eustatius and Saba see a greater variation in weather in their winter months along with more rain and stronger winds, particularly during hurricane season.

The BES islands are both public entities (*openbaar lichamen)* and special municipalities (*bijzondere gemeenten*) of the Netherlands, one of the four constituent countries (*landen*) of the Kingdom of the Netherlands (the other constituent countries being Curaçao, Aruba and St Maarten), and have been so since the dissolution of the Netherlands Antilles in 2010 (see Section 1.3). While Dutch is the official language and used for government business on the BES islands, Papiamentu is the native language of Bonaire, and English is the native language on St Eustatius and Saba. Spanish is also widely spoken and understood on the BES islands.

Fig. 1.1 Map of the BES islands

Notes: The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of WHO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Source: WHO GIS Centre for Health, Division of Data Analytics and Delivery for Impact (2024).

The population of the BES islands stood at 29 418 in 2023, with Bonaire having the overwhelming majority at 24 090 residents, St Eustatius having 3 293 and Saba 2 035 (see Table 1.1). Only 9 592 (32.6%) of residents were born on the BES islands, with 4 306 (14.6%, up from 9% in 2011) coming from the European Netherlands and 6 046 (20.6%, stable since 2011) from Curaçao, Aruba and St Maarten (hereafter CAS islands). Just under half of the population (48.3%) were female in 2023, and

the overall population density was 91.4 per km^2, varying from 83.7 per km^2 on Bonaire to 156.8 per km^2 and 156.5 per km^2 on St Eustatius and Saba, respectively.

While the European Netherlands had a population growth of 7.3% from 2011 to 2023, the overall population of the BES islands collectively grew by nearly 40% over the same time; this includes a 126% increase of those born in the European Netherlands. Per island these were growths of 53.7% on Bonaire and 13.2% on Saba, while the population dropped 8.8% on St Eustatius, according to official statistical data (CBS, 2023a). By 2035, the BES islands are expected to have just under 35 000 residents (CBS, 2023b).

The percentage of the population aged 65 years or older has grown from 9.5% in 2011 to just under 14% in 2023 on the BES islands, while the share of those under 15 years of age has gradually declined since 2011, accounting for 16.2% of the population in 2023. In comparison, the share of older people in the European Netherlands is much higher than on the BES islands, at 20.2% in 2023. A population forecast from Statistics Netherlands (*Centraal Bureau voor de Statistiek*, CBS) estimates that residents aged 65 years and above will comprise close to 26% of the BES islands' total population by 2050 (CBS, 2023b).

Table 1.1 Trends in population and demographic indicators, selected years

	2011	2016	2021	2022	2023
Total population	21 087	24 548	26 805	27 726	29 418
Population aged 0–15 (% of total)	18.6%	17.5%	16.9%	16.7%	16.2%
Population aged 65 and above (% of total)	9.5%	11.3%	13.5%	13.8%	13.9%
Population density (people per km²)	65.5	76.2	83.2	86.1	91.4
Population growth (average annual growth rate in %)	n/a	-0.18%	3.15%	3.44%	6.10%
Fertility rate, total (births per woman)	1.63	1.53	1.58	1.50	n/a

Note: n/a - not available.
Source: CBS (2023a).

1.2 Economic context

As is common for small islands, economic activity on the BES islands is primarily driven by tourism, with agriculture, fishing, real estate development, services, trade and industry playing smaller roles. Local government is also a major employer. Prior to the COVID-19 pandemic and throughout the 2010s, the BES islands experienced steady economic expansion, reflected in GDP per capita reaching US$ 28 200 in 2019, before dropping to US$ 24 100 in 2020, the first year of the COVID-19 pandemic. Median disposable income also rose over the same pre-COVID period (CBS, 2022). GDP per capita rose to US$ 27 000 in 2021 (see Table 1.2).

Total gross domestic product (GDP) amounted to US$ 637 million in 2020, although this was an 11.5% drop in output from 2019, the last year before the onset of the COVID-19 pandemic, which had huge impact on income from tourism. GDP for the BES islands recovered to US$ 735 million in 2021.

Table 1.2 Macroeconomic indicators for the BES islands, selected years

	2012	2015	2018	2019	2020	2021
GDP per capita (current US$)	26 000	26 300	27 100	28 200	24 100	27 000
GDP annual growth rate	n/a	2.70%	1.60%	5.90%	-11.50%	15.4%
Unemployment, total (% of labor force)	5.20%	n/a	3.30%	n/a	4.20%	n/a
Income inequality (Gini coefficient of disposable income)	0.39	0.40	0.40	0.39	0.38	0.39

Note: n/a – not available.

Source: CBS (2023a).

Both unemployment and income inequality trends have generally held stable over time. On Bonaire, St Eustatius and Saba, the sum of the top twenty percent of highest incomes on the respective islands were 9.7, 11.3 and 7.1 times the sum of the lowest twenty percent of incomes (80/20 ratio); since 2011, this ratio has only decreased on Saba, while rising slightly on Bonaire and St Eustatius (CBS, 2022).

Stable trends can also be observed in relative poverty data over time, with each island having a relative poverty level (those living below the national poverty threshold, defined as 60% of the median income of the population) between 20% and 30% in 2021 (see Table 1.3), with the at-risk-of-poverty rate being slightly higher on St Eustatius over time (CBS, 2022). Given the high poverty rate on the BES islands, the European Netherlands are an active financier of government services directly, with total outlays growing from EUR 306 million in 2017 to EUR 557 million in 2021[1], with large increases in health spending (overlapping with the COVID-19 outbreak), as well as climate and infrastructure spending (Ministerie van Financiën, 2021).

[1] Economic activity on the BES islands is recorded in US$, which is the currency used, while transfers to the BES islands are recorded and reported in EUR.

Table 1.3 At-risk-of-poverty rate (%) for the BES islands, per island, selected years

	2012	2015	2018	2019	2020	2021
Bonaire	25	24	22	23	22	24
St Eustatius	29	29	27	29	28	29
Saba	22	24	21	21	21	22

Note: refers to the percentage of the population below the poverty threshold (= 60% median equivalized income population).

Source: CBS (2023c).

1.3 Political context

Apart from several short interruptions, the BES islands, as well as the CAS islands, have been governed by Dutch administration since the seventeenth century.

In 1954, the Netherlands Antilles was established as the autonomous successor of the six islands of the colony of Curaçao and its dependencies (*Kolonie Curaçao en Onderhorigheden*). From then on, the government of the Netherlands Antilles had the primary responsibility for the provision of public services and provision of healthcare for the six islands, for governing the health system and for steering and evaluating policy initiatives. After decades of recurring discussions on constitutional arrangements, the Netherlands Antilles fragmented into smaller constitutional parts within the Kingdom of the Netherlands, beginning with the secession of Aruba in 1986. All three BES islands had status referenda in the mid-2000s, with 59.5% of Bonaireans and 86.1% of Sabans voting for direct constitutional ties with Netherlands, while 76.6% of Statians voted to remain part of the Netherlands Antilles.

On 10 October 2010 (hereafter 10/10/10), the BES islands were integrated into the Dutch constitutional system as special municipalities via the Public Entities Bonaire, St Eustatius and Saba Act (*Wet openbare lichamen Bonaire, St Eustatius en Saba*), while the Public Entities Bonaire, St Eustatius and Saba Finances Act (*Wet financiën openbare lichamen Bonaire, St Eustatius en Saba*) specifies rules on the financial function of the public entities related to budgets, budget amendments, annual accounts and financial management (overheid.nl, 2023a). The CAS islands are (autonomous) constituent countries within the Kingdom of the Netherlands. In 2014, 65.5% of Statians voted in a non-binding referendum for autonomy within the Kingdom of the Netherlands, while in 2015, 65.6% on Bonaire voted against having a direct link to the Netherlands. There are also political movements on the BES islands that strive for full self-government, to return them to the UN's list of Non-Self-Governing Territories (from which they were removed in 1955), with some movements advocating for full secession from the Kingdom of the Netherlands (Bonaire Human Rights Organization, n.d.).

As public entities of the Netherlands, the BES islands are governed by executive councils. The executive councils (a governor or lieutenant governor appointed by the monarch and several commissioners) handle day-to-day operations of government, supported by civil servants, and are charged with implementing the decisions of the island councils (*Eilandsraden*), whose members are directly elected and who select the executive council deputies. Island councils are elected every four years and elections take place simultaneously with Dutch Provincial elections. The island council of Bonaire has nine seats, while the islands councils of St Eustatius and Saba each have five seats;

current council seats per island are due to increase for the next scheduled elections in 2027 (see Section 6.2). In February 2018, the island council, executive council and Governor of St Eustatius were removed and replaced by a Government Commissioner by Dutch Parliament in The Hague, with the assumption of all tasks and powers of administration. This direct intervention by the Dutch Government came in response to a report (known as the Report of the Committee of Wise Men) to the Dutch Ministry of the Interior and Kingdom Relations (*Ministerie van Binnenlandse Zaken en Koninkrijksrelaties*, BZK) detailing favoritism and financial and administrative mismanagement by island authorities (RCN, 2018a; RCN, 2018b; Samson, 2018). In July 2020, the intervention was extended while also setting a path to normalization of public administration, with the first elections occurring again in October 2020 (Statia Government, 2020a; IFES, 2020). The right of the St Eustatius government to draft, adopt and implement its own budget was restored in mid-2023 (Statia Government, 2023). At the time of writing (May 2024), the final step in the normalization process is underway and the appointment of a Governor of St Eustatius to replace the Government Commissioner was announced in March 2024 (BZK, 2024; The Daily Herald, 2024).

As special municipalities of the Netherlands, the BES islands fulfill roles and functions comparable to municipalities in the European Netherlands. Unlike their European counterparts, the BES islands do not belong to any Dutch Province and are also responsible for arranging and maintaining crucial infrastructure such as roads and international sea- and airports – which, in the European Netherlands, would fall under either provincial or national government affairs. Thus, competencies typically given to Dutch Provinces in the European Netherlands are divided between the islands' governments (hereafter public entities) and the Dutch Government in The Hague via the National Office for the Caribbean Netherlands (*Rijksdienst Caribisch Nederland*, RCN). Among other tasks, RCN oversees taxation, immigration, transport, and social security on the BES islands on behalf of the Dutch Government. A Kingdom Representative (*Rijksvertegenwoordiger voor de openbare lichamen Bonaire, St Eustatius en Saba*), located on Bonaire, currently functions as the official liaison and link between the Dutch Government in The Hague and the BES islands, though each island is set to gain a permanent representative in The Hague to be able to be involved in policy planning at earlier stages (rijksoverheid.nl, 2024a). An official working group of representatives of the BES islands and BZK will also be set up (see Section 6.2).

Eligible voters on the BES islands can participate in elections for the Dutch House of Representatives (*Tweede Kamer der Staten-Generaal*), and did so for the first time following the 10/10/10 reforms in 2012. They are similarly entitled to vote in European elections (Gibbs, 2018). Beginning in 2019, voters on the BES islands gained the right to vote for electoral colleges as a single constituency, who go on to elect members of the Dutch Senate (Kiesraad.nl, n.d.). In the 2023 Dutch general election, 23.4% of eligible voters participated (bonairestemt.nl, 2024).

Certain Dutch legal structures do not automatically apply to the BES islands (Eerste Kamer, 2010), though many legal frameworks are adopted for the BES islands based on Dutch precedents. The situation is similar for European Union (EU) regulations, due to the BES islands' status as Overseas Countries and Territories (OCTs) of the EU (BZ, 2024). For example, several laws that organize the health system for the European Netherlands do not apply to the BES islands: the General Data Protection Regulation (*Algemene Verordening Gegevensbescherming, AVG*), the Electronic Data Exchange in Health Care Act (*Wet elektronische gegevensuitwisseling in de zorg, Wegiz*), the Use of Citizen Service Numbers in Healthcare act (*De Wet gebruik burgerservicenummer in de zorg, Wbsn-z*) as well as the so-called system laws (*stelselwetten*, see Section 3.2). Further details on the governance structure of the health system are listed in Section 2.8.3, while Section 6.1 elaborates on the concepts of legislative restraint (*legislatieve terughoudendheid*) and "comply-or-explain".

1.4 Health status

In line with global trends, a common theme regarding health status on the BES islands is the rising threat of non-communicable diseases (NCDs), along with the rise in persons classified as overweight or obese (Dokter & Zaat, 2016; CBS, 2018). This is influenced by various physical and lifestyle risk factors that are evident on the BES islands – alcohol consumption is high, for example, a healthy balanced diet is difficult to achieve and engaging in an active lifestyle is a challenge faced by the majority of each island's population (see Fig. 1.2).

Fig. 1.2 Overview of the prevalence of behavioral lifestyle factors on the BES islands, as a % of the population, 2021

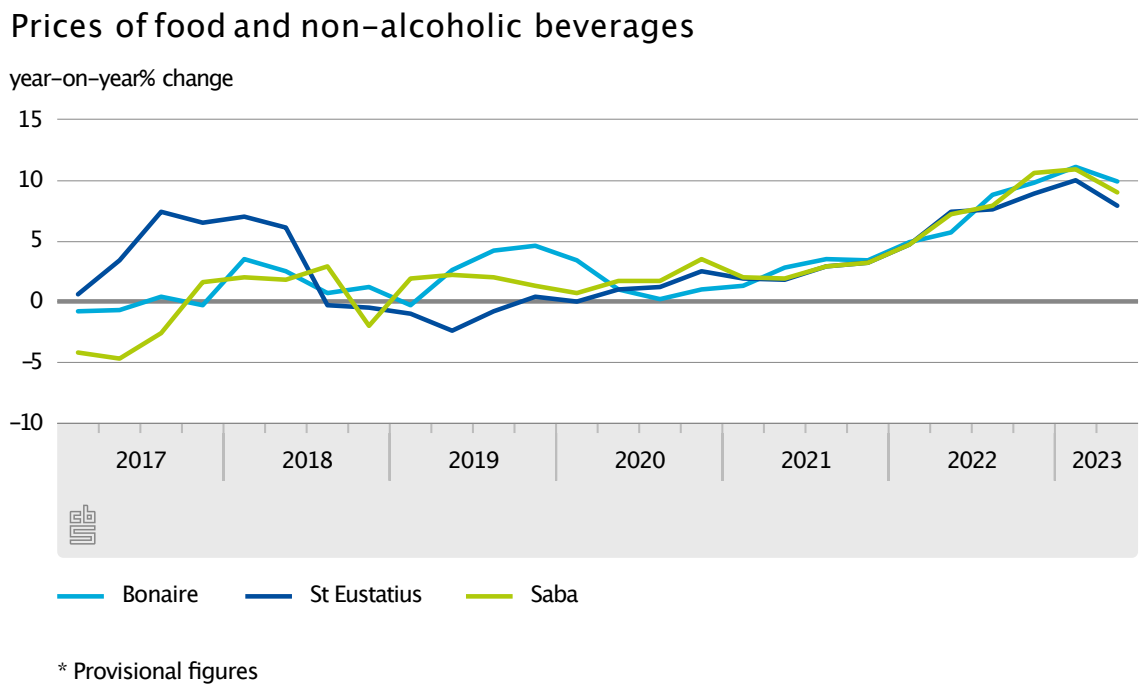
Notes: Physical inactivity refers to those who do not undertake at least 150 minutes per week of physical exercise as per self-reported data; Inadequate fruit consumption refers to those not eating at least 2 pieces of fruit daily at least 5 days per week; Overweight refers to those with a body mass index of 25 and above and obesity to a body mass index of 30 and above; Smoking refers to those who have ever smoked as per self-reported data; Damaging alcohol consumption refers to those drinking more than 4 drinks (women) or 6 drinks (men) of alcohol on a single occasion at least once a week.

Sources: CBS Omnibus Survey (2021), CBS (2023c), Saba Government (2023).

There are various socioeconomic and political factors which impact health status on the BES islands, including structural elements, such as lack of appropriate excise taxation and legislation on tobacco and alcohol. For example, during the transition from the Netherlands Antilles to special municipalities of the Netherlands, Dutch national legislation was not adopted for the BES islands. Today, there is no taxation on tobacco products and alcohol on St Eustatius and Saba, whereas there is on Bonaire via the Customs and Excise Act BES (*Douane- en Accijnswet BES*) (see Section 5.1) (overheid.nl, 2024).

Furthermore, a challenge of living on the islands is that the environments are conducive to unhealthy lifestyles. With fewer options for public transportation and challenging landscapes for safely riding a bicycle or walking, car travel is the overwhelming mode of transportation. Geographically, the hot Caribbean climate experienced for much of the year makes outdoor sport less feasible. This is compounded by factors that make practicing a healthy lifestyle and balanced diet difficult to achieve: the high cost of healthy food products, strong reliance on external food supply and long shipping supply chains limit accessibility to fresh, healthy foods. Lower disposable incomes also make healthier options challenging to afford, in comparison with the processed foods and drinks that are unhealthier and more widely available (and more affordable). For example, barges of food supplies dock and unload groceries for Saba and St Eustatius just once a week. Fig. 1.3 shows the rising cost of food and non-alcoholic beverages on the BES islands in recent years.

Fig. 1.3. Prices of food and non-alcoholic beverages on the BES islands, 2017-2023



Source: CBS (2023d).

For children, the school environment plays an important role in stimulating good health habits In the European Netherlands, this is promoted through the healthy school approach (*gezonde school aanpak*), which has not been formally adapted for the BES islands; schools are reliant on self-initiative. In recent years, the islands have been supported by the Youth at healthy weight or JOGG

(*Jongeren op Gezond Gewicht*) program, to create healthier societies for children to grow and develop on all three islands (see Section 5.1). Examples of local efforts also include the development of a hydroponics farm on Saba to produce and make fresh, healthy fruit and vegetables available on the islands (Saba-news.com, 2023) as well as the Saba Splash project, which produces quality drinking water locally and at more affordable prices (loopnews.com, 2021).

The necessity for many residents of the BES islands to work more than one job due to the high cost of living also leaves little time for incorporating healthy activities into weekly schedules. People on the BES islands are living longer than in 2000 (see Table 1.4). In 2019, life expectancy at birth for the total population was higher on the BES islands (83.2 years) than in the European Netherlands (82.2 years) and also the EU average (81.3 years) (OECD/European Observatory on Health Systems and Policies, 2023). The gap between female and male life expectancy at birth was also much smaller on the BES islands in 2019, at 0.8 years, compared to the 3.1 years difference in the European Netherlands and the 5.5 years in the EU.

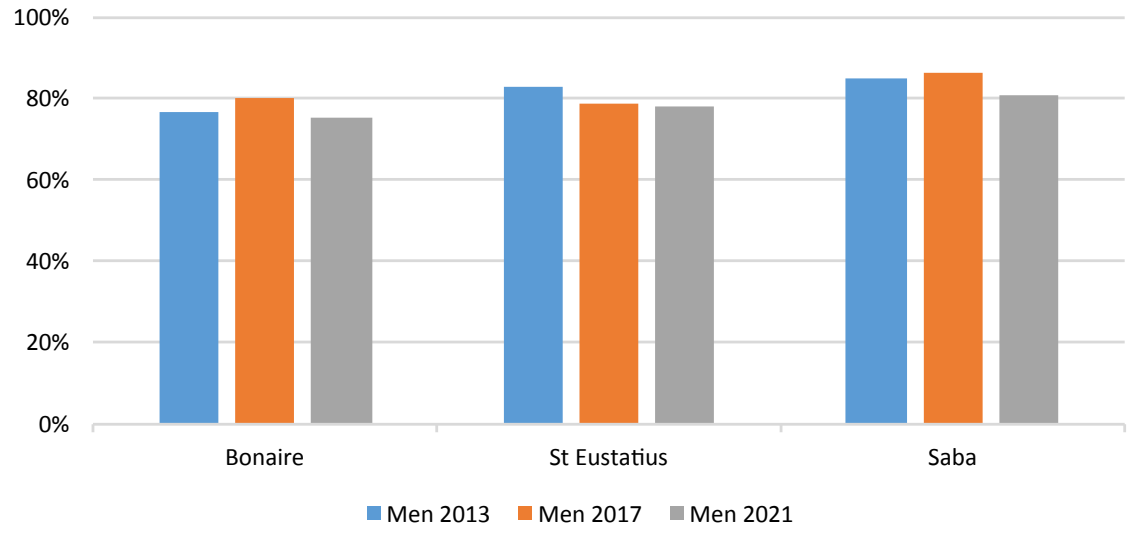
Table 1.4 Life expectancy for the BES islands, selected years

	2000	2005	2010	2015	2018	2019
Life expectancy (years)						
Life expectancy at birth, total	77.2	77.1	79.2	81.7	82.9	83.2
Life expectancy at birth, male	75.0	75.7	77.4	80.0	82.1	83
Life expectancy at birth, female	79.3	78.4	80.6	83.2	83.9	83.8
Life expectancy at 65 years, male	16.5	17.0	18.0	19.8	21.4	22.1
Life expectancy at 65 years, female	18.8	18.0	19.6	21.6	22.0	22.0

Source: CBS (2023e).

Survey data show that men on Saba rated their health the highest of the three islands in 2021, with 80.6% marking their health as good or very good, compared to 75.1% on Bonaire and 78.4% on St Eustatius (see Fig. 1.4). These were all declines from surveys in 2017 asking the same question, though the collection of the data varied between the two in that 2017 data was filled in by individuals themselves, while in 2021 CBS carried out face-to-face interviews, which can lead to variances in reporting due to perceived judgement and specific sensitivities related to questions asked. Thus, drawing full conclusions from the differing values is not a clear-cut exercise and would benefit from the use of harmonized methodologies in the future. In the 2021 survey, 70.4% of women on Bonaire and Saba and 70.9% of women on St Eustatius rated their health as good or very good (see Fig. 1.5).

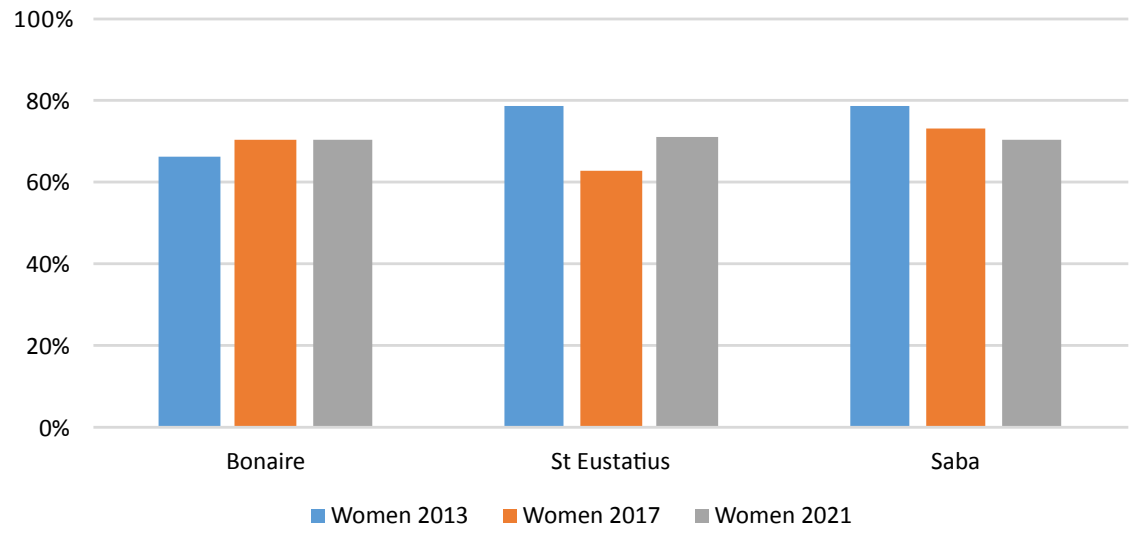
Fig. 1.4. Perceived health of men on the BES islands, selected years (% of those aged over 15 describing their health as good or very good)



Note: differing methods of data collection – see text above.

Source: CBS (2023c).

Fig. 1.5. Perceived health of women on the BES islands, selected years (% of those aged over 15 describing their health as good or very good



Note: differing methods of data collection – see text above.

Source: CBS (2023c).

Systematic data collection, analysis and dissemination on mortality and morbidity to identify the leading causes of death on the BES islands is not currently in effect, although a feasibility study concluded in early 2024 provides several recommendations on how to work towards this goal (see Section 2.6.1). Other data on quality of life, such as the share of the population living with multimorbidites and for how long, are not available. Each public entity (*openbaar lichaam*) has its own public health department, and regular public health reports are part of their mandates; the report for Saba was recently published and those for Bonaire and St Eustatius are due in 2024. To date, while comparisons are drawn across the populations of the three BES islands (as reflected above), there is no overarching report produced by a health agency in the European Netherlands to summarize the findings of these individual reports in order to make comparisons between them and the European settings (see Section 5.1).

2. Organization and governance

- Before the 20th century, there was no governmental involvement in healthcare on the BES islands, which were then part of the colony of Curaçao. The establishment of oil refineries in Curaçao and Aruba in the early 20th century led to economic prosperity and subsequently to the introduction of healthcare services and social security by the colonial, and later the autonomous government of the Netherlands Antilles.
- The first state health scheme was introduced in 1936, mandating employers to cover healthcare costs for employees. This would evolve to include the introduction of health insurance regulations in 1966 and expanded to include employees' families and long-term care needs.
- The Public Health Service, established in Curaçao in 1917, marked an early step in governmental involvement in public health. The service focused on providing medical assistance to the less well-off and controlling infectious diseases.
- After the dissolution of the Netherlands Antilles in 2010, a significant healthcare reorganization occurred in the BES islands. A centrally-financed system was chosen over the Dutch system of competing providers and insurers or maintaining pre-2010 arrangements, primarily due to the unique challenges of the BES islands, such as small population size and limited healthcare providers.
- On the BES islands, the Ministry of Health, Welfare and Sport plays a central role, differing from its function in the European Netherlands. It is responsible for policy development, directly managing the mandatory, universal health insurance scheme (which is actually a tax-funded system), and improving service provision.
- The Ministry of Health, Welfare and Sport is also responsible for health system financing and regulations, with the Department of Care and Youth Caribbean Netherlands acting as the third-party payer. The regulatory framework includes oversight of public health, outpatient and inpatient care, pharmaceuticals, and long-term care. Despite this centralization, certain aspects of healthcare, such as youth and elderly care, are partially delegated to the BES islands.
- Other ministries like Finance, Justice and Security, and Social Affairs and Employment, along with health institutes such as the Health Care and Youth Inspectorate and the National Institute for Public Health and the Environment, contribute to the health system in various capacities, including financial administration, emergency planning, and public health interventions.
- The strengthening of health information systems is crucial for effective policymaking. However, current data collection is fragmented and not fully integrated into a broader strategy for health research, leading to limited availability of comprehensive health system performance data.
- Efforts are being made to improve the availability of patient information and to address patient rights. However, patient choice and rights are somewhat limited compared to the European Netherlands, partly due to the small scale of the islands' health systems.

2.1 Historical background

2.1.1 Health insurance and public health before 2010

Prior to the 20th century, there was no governmental involvement in the financing arrangements for ill health and formal healthcare services were absent on the BES islands, which were then still part of the colony of Curaçao and its dependencies. The opening of the oil refineries on Curaçao (1918) and

Aruba (1929) brought employment opportunities and economic prosperity, after which the colonial government (from 1954 onwards, the autonomous government of the Netherlands Antilles) became gradually more involved in providing social security, including elements that improved the accessibility and affordability of healthcare services. These arrangements were modelled on the existing arrangements for the employees of the oil refineries, relevant legislation from the Netherlands and international conventions (Sociale Verzekeringsban, n.d.).

The first state health scheme in the colony was the sickness scheme (*Ziekteregeling*) in 1936, which obligated employers to cover the healthcare costs for employees. Attempting to mitigate the financial risks of the sickness scheme, the government adopted the first health insurance regulation in 1966 (Sociale Verzekeringsbank, 2016). In 1996, the scope was broadened to include employees' family members (ibid) with insurance covering exceptional medical expenses for the long-term care (LTC) of dependent persons (overheid.nl, 2008).

Besides national social security schemes of the Social Insurance Bank (*Sociale Verzekeringsbank*), which was established in 1960, the island governments introduced additional provisions that were enacted by the Health Insurance Bureau (*Bureau Ziektekostenverzekering*), which was founded in 1963. This replaced earlier arrangements based on island council decisions; an additional arrangement for the poor was also implemented on Bonaire in 2003 (overheid.nl, 2010), though comparable legislation was not implemented on St Eustatius and Saba.

The founding of the Public Health Service (first *Openbare Gezondheidsdienst*, later *Gemeentelijke Gezondheidsdienst*) on Curaçao in 1917 marked one of the first steps of governmental involvement in public health. Medical practitioners working for the Public Health Service were legally obliged to provide medical assistance to the less well-off and focused on the control of infectious diseases (Gobiènu di Kòrsou, 2023). An independent medical inspectorate was established on Curaçao (as the capital of the Netherlands Antilles) in 2002 following a merger of a sub-department of the Department of Public Health and Environmental Hygiene (*Departement van Volksgezondheid en Milieuhygiëne*, VOMIL) and the Inspectorate of Medicines (overheid.nl, 2003).

2.1.2 Provision of care before 2010

The provision of organized healthcare services on the BES islands has a tradition of private initiatives and charity along religious and philanthropic lines. On Bonaire, sisters of the congregation of Franciscans of Roosendaal laid the foundation for hospital and elderly care with the establishment of the San Francisco Hospital in 1922, today also known as Fundashon Mariadal, and the elderly home Kas di Sosiego. The A.M. Edwards Medical Center and Honorable Henry C. Every Home for the Aged were established by the Saban Government in 1980 and were put under the same management for the first time following the merger of the Saba Health Care Foundation and the Benevolent Foundation Saba into Saba Cares in 2021. On St Eustatius, the Queen Beatrix Medical Center was built in the early 1980s and is managed today by the St Eustatius Health Care Foundation (SEHCF), which was founded in 2010.

2.1.3 Provision of care since 2010 (10/10/10)

Leading up to the 2010 governance reforms, a choice had to be made between (1) keeping the pre-2010 arrangements for the BES islands, (2) fully implementing the European Dutch system and regulations, or (3) creating a new framework. The pre-2010 arrangements after the dissolution of the Netherlands Antilles would have left the BES islands overburdened and without proper capacity, while implementing the social health insurance (SHI) system in the European Netherlands was deemed not suitable for the BES islands for several reasons including small population size, low(er)

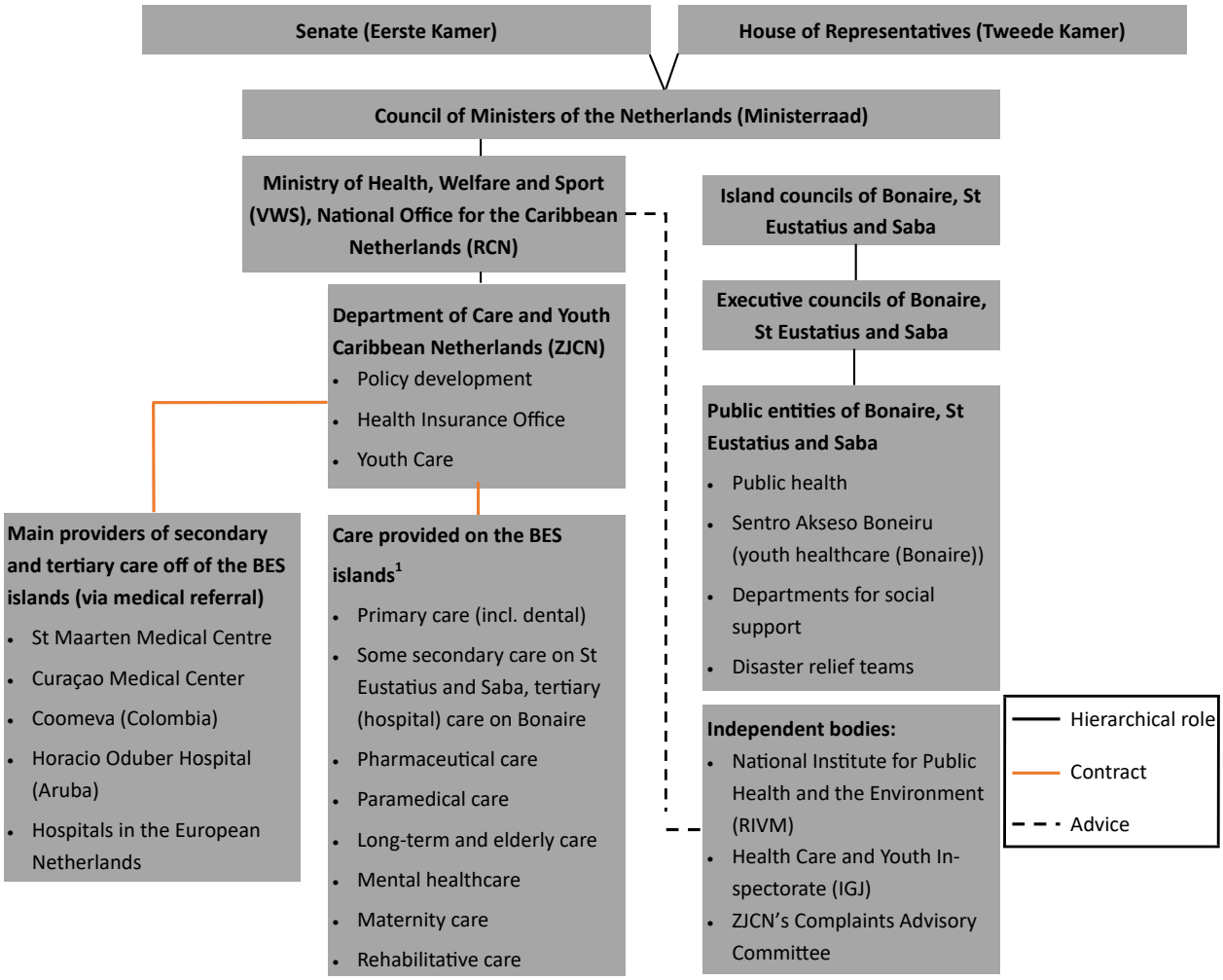
income levels and limited numbers of providers and facilities. Therefore, the new framework was chosen for the BES islands based on a centrally-financed system instead of a system based on competing providers and insurers.

The Healthcare Institutions Act BES (*Wet zorginstellingen BES*) and Public Health Act (*Wet Publieke Gezondheid*) thus became effective on 10/10/10, shifting responsibility for healthcare on the BES islands from the Netherlands Antilles and VOMIL to the Ministry of Health, Welfare and Sport (*Ministerie van Volksgezondheid, Welzijn en Sport*, VWS) and the Dutch Government in The Hague. VWS functions as the single payer and purchaser of healthcare services on the BES islands and its responsibility for arranging contracts with all care providers, including LTC for the elderly are executed by the Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*, ZJCN), which has staff in The Hague and on all three islands. Moreover, several providers on the BES islands were established following the administrative reforms to improve the availability and standard of care on the islands themselves (see below).

2.2 Organization

The organizational structure of the health system is depicted in Fig. 2.1.

Fig. 2.1 Organizational overview of the health system on the BES islands



Note: see Section 4.1 for a full list and description of care providers physically located on the BES islands.
Source: authors' own elaboration.

2.2.1 Ministry of Health, Welfare and Sport (VWS)

The role of VWS in the European Netherlands is mainly one of developing policies and measures to promote the health and well-being of the Dutch population. The health system, since 2006, is based on regulated competition among actors in the three health markets (insurance, purchasing and provision markets under government supervision). On the BES islands, this role is notably different, as is the health system. There is an absence of health insurers (given the very small and unattractive markets for any national or regional insurers). Furthermore, there are a limited number of providers (due to small population size) and historically underdeveloped standards of care provided prior to 10/10/10 (due to quality control and enforcement challenges).

On the BES islands, the BES Healthcare Insurance Decree (*Besluit zorgverzekering BES*) is the legal framework for the mandatory, universal health insurance scheme (which is actually a tax-financed system) and the BES Healthcare Insurance Claims Regulation (*Regeling aanspraken zorgverzekering BES*, Raz BES) sets out entitlements for residents who work or reside legally on Bonaire, St Eustatius and Saba. Raz BES also specifies how residents themselves contribute (indirectly) to health financing

on the islands (see Section 3.3.2). Dutch regulations and health policies do not necessarily apply on the BES islands and implementation is most often not seen as feasible given the size of the islands.

A more centrally organized and a hands-on steering role for VWS began on 10/10/10 (VWS, 2016). Policy development and implementation of the health system, including the annual health budget, were initially coordinated by the Department of International Affairs (*Directie Internationale Zaken*) in The Hague beginning in 2010. This was done in collaboration with providers, the islands' public entities and their public health offices. Since 10/10/10, the operational role of VWS staff in the provision of the mandatory, universal health insurance scheme (a tax-financed system) on the BES islands and certain aspects of youth care has been organized via the National Office for the Caribbean Netherlands (RCN)[2]. The Health Insurance Office was known as ZVK (*Zorgverzekeringskantoor*) and the head of ZVK was appointed by the Minister of VWS, and the duties and mandate of this position are anchored in a governmental decree. ZVK arranged and negotiated all contracts with care providers on and off the BES islands and processed payments, while certain aspects of youth care were implemented by the Youth Care and Guardianship Council (*Jeugdzorg en Gezinsvoogdij*, JGCN).

In 2020, a new department was established within VWS, the Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*, ZJCN). This new department merged ZVK and JGCN. ZJCN and its director thus took over the mandates on policy development and implementation, under the direct steering of VWS. Policy formation, including governance, regulation, provision and financing of the health system, is centralized within VWS through ZJCN. The ZJCN team in The Hague arranges budgeting and regulations, while the ZJCN team in the Health Insurance Office on Bonaire (ZJCN is also referred to as the Health Insurance Office on the BES islands) works to conclude contracts with providers. The ZJCN team in The Hague is also involved in this, particularly with higher-volume contracts. The team on Bonaire furthermore oversees the administration of insurance and expenses to providers, who are either non-profit foundations (that receive public funds and have reporting requirements) or private companies.

As agreed with the islands' administrations in 2008, the guiding principle for the first phase of public administration on the BES islands aimed to achieve a "level of facilities acceptable within the Netherlands, taking into account the specific circumstances on the islands" (Eerste Kamer, 2008). The health policy agenda since 2010 has therefore focused on building a new and accessible public, tax-financed insurance system for all legal residents and on improving and expanding health facilities and the provision and quality of services by (1) general practitioners (GPs), (2) medical specialists (on the islands themselves or through cross-border arrangements), (3) nursing home facilities, home care and certain aspects of youth care, (4) pharmaceutical care and (5) mental health services.

Following the first phase of "acceptable" public administration on the BES islands and working to establish a baseline across all three islands, the State Secretary of VWS communicated his vision for the next phase of the health system in 2022 (overheid.nl, 2022). The guiding principle of this phase is to move towards levels of care that are equivalent to those in the European Netherlands (see Section 6.2).

2.2.2 The public entities and their role on the BES islands

Municipalities in the European Netherlands' health system have large roles in steering policy initiatives and the implementation of social support, public health initiatives and the more community-oriented aspects of youth health. These roles have been more limited on the BES islands,

[2] RCN employees dealing with healthcare on the BES islands are officially recommended for their roles by VWS.

as The Hague has partially delegated these to the public entities, which they finance via their own budgets. Increasingly, ZJCN and the public entities of Bonaire, St Eustatius and Saba are making clearer agreements regarding the division of responsibilities, with the aim being to enable the public entities to take on broadened roles. This has been stimulated on the one hand by making knowledge and experience available from the European Netherlands and on the other hand by making funds available to the islands' public entities through a multi-year special allowance (*bijzondere uitkering*) for particular programs (overheid.nl, 2020a; overheid.nl, 2023b). They may also receive grants as a so-called free allowance (*vrije uitkering*) and use them for programs on health (see Section 3.7). For example, in 2023, Saba received US$ 785 322 as a free allowance, while Bonaire received US$ 718 000 and St Eustatius US$ 438 822 as special allowances.

In recent years, the continued development of the public health departments and their policy competencies on all three islands has been an area of focus (see Section 5.1). Moreover, Sentro Akseso Boneiru, a community-oriented organization on Bonaire that provides tailor-made social support services and is responsible for the execution of youth healthcare services on Bonaire, originated from the merger of several smaller organizations in 2022.

2.2.3 Other Ministries in the European Netherlands

Additional ministries in the European Netherlands play an important role in health and healthcare on the BES islands. The Ministry of Finance (*Ministerie van Financiën*) has a direct mandate via the Tax and Customs Administration (*Belastingdienst*) that levies social health insurance contributions via taxes; additionally, the Ministry of Finance in The Hague is active in allocating funds for the health system of the BES islands via taxes paid by individuals and corporations in both the Caribbean and European Netherlands. The Ministry of Justice and Security (*Ministerie van Justitie en Veiligheid,* JenV) is responsible for the coordination and organizational planning in the event of major accidents, disasters and crises, which is delegated to the Kingdom Representative through the Safety BES Act (*Veiligheidswet BES*). Medical emergencies are, in addition to the fire brigade, the police and the island entities, part of disaster relief organization; the disaster plans are implemented by the public entities. Moreover, JenV also plays a part in the implementation of the Istanbul Convention addressing domestic violence and child abuse on the BES islands.

The Ministry of Social Affairs and Employment (*Ministerie van Sociale Zaken en Werkgelegenheid*, SZW) is responsible for the social security schemes covering benefits for the sick, disabled and the poor. These arrangements fall outside of the mandate of ZJCN. The Ministry of Education, Culture and Science (*Ministerie van Onderwijs, Cultuur en Wetenschap*, OCW) plays a role in education policy, laws and regulations.

BZK coordinates and facilitates between the Dutch Ministries in The Hague and the public entities, as well as between the Netherlands and the autonomous governments of the CAS islands. This cooperation focuses primarily on good governance, sound public finances, economic development and safe societies. For the BES islands this also includes poverty reduction and infrastructure. The respective Ministers and State Secretaries of the Dutch Ministries are accountable to the Dutch political system in The Hague, more specifically to their respective commissions in the House of Representatives and the Senate. In addition, the respective committees in the House of Representatives prepare relevant legislative proposals.

2.2.4 Other health institutes in the European Netherlands

The following health institutes in the European Netherlands play a role in the health system of the BES islands:

- The Health Care and Youth Inspectorate (*Inspectie Gezondheidszorg en Jeugd*, IGJ) is an independent agency of VWS and supervises the quality and accessibility of health, youth healthcare and youth care on the BES islands.
- The National Institute for Public Health and the Environment (*Rijksinstituut voor Volksgezondheid en Milieu*, RIVM) is an independent agency of VWS that supports the BES islands with the implementation of public health interventions related to the control of infectious diseases (e.g. the adoption of the International Health Regulations, IHRs) and population screenings for the early detection of cancer as well as in the assessment, interpretation, dissemination of public health data via the public health reports that the islands are obliged to prepare every four years.
- The Netherlands Organization for Health Research and Development, known as ZonMw, is the main funding body of applied health research in the Netherlands and provides grants for health research institutes in the Dutch Caribbean region. It is a partnership between Care Research Netherlands (*ZorgOnderzoek Nederland*, ZON) and the Medical Sciences (*Medische Wetenschappen*, MW) Domain of the Dutch Research Council (*Nederlandse Organisatie voor Wetenschappelijk Onderzoek,* NWO). ZonMw is in the process of preparing a program specifically oriented to the needs of the CAS and BES islands (ZonMw, 2024).
- The Health Council of the Netherlands (*Gezondheidsraad*) advise broadly on the fields of public health and healthcare, including recently with advice on COVID-19 vaccinations on the BES islands.
- The Central Information Point for Healthcare Professions (*Centraal Informatiepunt Beroepen Gezondheidszorg,* CIBG) is an independent implementing organization under VWS and registers providers (see Section 4.2.3).

The mandates of the main independent governmental advisory entities in the European Netherlands that are involved in health (financing), quality control, social development as well as structural funding opportunities for health research by independent academic and knowledge institutes do not (yet) fully include the BES islands. This applies to the Council for Public Health and Society (*Raad voor de Volksgezondheid en de Samenleving*, RVS), the National Healthcare Institute (*Zorginstituut Nederland*, ZiNL), the Netherlands Institute for Social Research (*Sociaal en Cultureel Planbureau*, SCP), the Consumers and Markets Authority (*Autoriteit Consument en Markt*, ACM) and the Dutch Healthcare Authority (*Nederlandse Zorgautoriteit*, NZa). Therefore, policy evaluation is not undertaken structurally but regularly at their own initiative or at the request of VWS or other ministries.

2.3 Decentralization and centralization

Before 10/10/10, many care facilities were administered by local government directly, although now day-to-day operations are undertaken by Fundashon Mariadal's hospital, medical centers and the non-profit foundations operating in BES themselves.

VWS' operational scope on the BES islands (first via ZVK, since 2020 via ZJCN) has been broadened since 10/10/10 to include, among other things, long-term and elderly care (based on the recommendations of the *Commission Goedgedrag*), cancer screening services (by RIVM), infectious disease control (during COVID-19) and childcare services through subsidies for NGOs. Regarding youth care, a 2019 UNICEF report found that the shared responsibilities between VWS (among other ministries) and the public entities were "not always ideal and hampered by coordination problems" and lead to "unclear leadership on planning-related research, concepts and consultations". The relevant ministries were therefore encouraged to enable local entities to become more effective in policy development by decentralizing the mandate to make important decisions, particularly given the cultural differences and historical context (UNICEF, 2020). On this note, similar tensions are

observed between local and national governmental levels in the European Netherlands where the provision of services (including youth care) was decentralized to the municipalities, and was accompanied with major budget cuts (Batenburg, Kroneman, & Sagan, 2015).

2.4 Planning

A needs assessment based on, among other things, the expected care needs in relation to the various medical and dental specialization courses was carried out for Fundashon Mariadal's hospital in 2015 by the Capacity Body (*Capaciteitsorgaan*) in the European Netherlands. The volume planning of medical doctors in the hospital is organized based on the *jumelage*, or twinning agreement, between Fundashon Mariadal and the Amsterdam University Medical Center (Amsterdam UMC) (see Section 4.2.2). On the one hand, this arrangement is seen as an essential part of bringing the standard of medical care quality to Dutch standards. On the other hand, medical doctors from Amsterdam UMC only spend a limited time on the island (ranging from several months to more than a year) and often do not speak Papiamentu, the native language on Bonaire.

The educational arrangement that stimulated the volume planning of medical doctors that originate from the Dutch Caribbean islands, the so-called *ministersplaatsen*, was cancelled in 2017. This was in the context of the transition from a lottery system in place to a system of decentralized selection by medical schools in the European Netherlands. However, in April 2024, the Dutch House of Representatives (*Tweede Kamer*) passed a motion calling on the Dutch Government to reinstate the *ministersplaatsen* system or something similar (van Twillert, 2024).

These issues also impact the hospitals on the CAS islands that BES residents are frequently referred to, and the challenges of access to medical education in the European Netherlands by Dutch Caribbean students (from both the BES and CAS islands) have therefore increased, as universities must adhere to the numerus clausus regulation that limits the incoming number of medical students. This difficulty was further confirmed in a report commissioned by OCW and VWS and delivered by a research consortium (ResearchNed, KBA Nijmegen and the Kohnstamm Institute) at the end of 2023 (overheid.nl, 2023c); and is an example of an intersectoral challenge (see Section 2.5). Moreover, after their basic medical education, opportunities for specialization for medical students from all six islands are hampered by legal restrictions on the number of specialist positions that are available for applicants.

Compared to the resource planning for medical specialists, information regarding the (future) need for, and the capacity of other healthcare professionals, such as (specialized) nurses, GPs and operation assistants, have received less attention.

As data- and evidence-informed policymaking for both strategic and operational purposes are not yet fully implemented on the BES islands, there is a tendency for health system actors to look at what is being done and developed in the European Netherlands and, based on relevance and suitability, introduce it for the BES islands. Here, cost, implementation capacity (of providers and sometimes the public entities) and regulatory compliance are key factors that determine relevance and suitability, though more adequate research and general health information is needed to inform on meeting local health needs.

After 10/10/10, the planning of healthcare services was, after consultation with the public entities and providers, mainly supply-oriented under VWS stewardship with a strong focus on building up the provision of curative, secondary care services. The stated goal is that the next phase for the health system is to bring the level of care as close as possible to the level in the European Netherlands, concerning both the quality and the scope of the healthcare services on offer. Whether the current

healthcare services also align with residents' needs on the islands, or whether there are certain gaps, mostly remains unclear in the absence of adequate research. For example, one study conducted on Bonaire from 2022 about the future of elderly care found that there was a need to shift funding to promote more community-based and social services and away from traditional curative arrangements. The researchers emphasized that a strong collaboration between the stakeholders involved, from GPs to day care facilities to Fundashon Mariadal, would better help meet the needs of the target population moving forward, and that therefore an emphasis on developing a shared vision and focusing on quality improvements were key (Fringe, 2022).

2.5 Intersectorality

Promoting good population health on the BES islands not only requires adequate medical services but also strategic planning and structural investments across multiple (governmental) sectors. This makes competent governance, including at both the local and national levels, essential. Similar to the European Netherlands, however, the formation and implementation of Health in All policies remains a challenge. Such work for the BES islands entails not only cooperation across several (departments of) Dutch Ministries in The Hague with shared or overlapping responsibilities, but also with each individual public entity according to their capacities. While some work has been led by JenV (on the organization of disaster planning, relief and addressing domestic violence and child abuse) and SZW (on lowering food costs and reducing socio-economic disparities), few initiatives have been developed on other health-related intersectoral policy areas of occupational health, food safety, the regulation of tobacco and alcohol, and climate change.

One example of a structural intersectoral collaboration is the Sports and Prevention Agreement between VWS and the islands' public entities regarding the BES(t) 4 Kids program. This program is a collaboration between the public entities Bonaire, St Eustatius and Saba, the Ministry of Foreign Affairs, OCW, VWS and SZW. The aim is to strengthen day care and out-of-school care on the BES islands, with a focus on creating a safe and caring environment for children that is accessible to all parents.

2.6 Health information systems

Since 10/10/10, more health data and information have become available from different sources. Data collection is, however, fragmented and often not translated in ways that meet the needs for relevant and timely information for policy and decision-makers to point out issues, set priorities, support practices and monitor progress. There is no designated agency that is responsible for performance monitoring of health services and policy on the BES islands and data collection and research efforts are not integrated in a broader strategy for health research and information systems. As such, limited information is available for assessing health system performance on the BES islands, as the current collected data and information are not fully comparable to international (e.g. Pan American Health Organization (PAHO) and other agencies of the United Nations) and national (Dutch) standards. It is important to underline the instrumental value of standardized data - it can only facilitate the evaluation of whether the policies developed and implemented to achieve a level of care that are comparable or equivalent to the European Netherlands once "comparable" and "equivalent" are defined in practice (see Section 6.2). The same holds true for identifying areas for further improvement.

As special municipalities of the Netherlands, the public entities on the BES islands are required by the Public Health Act to publish population health reports (*nota gemeentelijke gezondheidsbeleid*) every four years. A 2014 report by RIVM concluded that the available health data was not suitable to

inform municipal population health reports on the BES islands. On the one hand, the usability of health data needed improvement: certain registers were not accessible, the scope of topics in health surveys too limited and capacity building in accurate data registration, collection and analyses was needed. On the other hand, the available health information did not cover the whole population; for example, little information is available on the health of children and adolescents on the islands (RIVM, 2014).

Saba's Public Health Department published a first overview of the community's health status and vision on improvements in 2019 (BES-reporter.com, 2019). The epidemiological analyses were based on the 2017 Health Study Caribbean Netherlands from CBS and on vital statistics and registry data from the Health Insurance Office, Saba Healthcare Foundation, St Maarten Medical Laboratory, CBS and their own data collection. A second overview was published in 2023 (Saba Government, 2023). The Public Health Department of Bonaire published a first overview in 2020 (Public Entity Bonaire, 2020). The reports for St Eustatius and Bonaire are forthcoming.

2.6.1 Types of health data

Vital statistics

Prior to 2010, the Public Health Department on Curaçao published cause of death information from death certificates (*doodsoorzakenverklaring*) issued on the BES islands, St Maarten and Aruba. This was last done for the Netherlands Antilles in 2000 and for Curaçao in 2007. Aside from Aruba, which publishes its data annually with PAHO, this remains a challenging task on the Dutch Caribbean islands. Some vital statistics, which include the number of births and deaths, are collected by the public entities, and have been analyzed and published by CBS since 2011. While physicians are required to provide causes of death on death certificates, further distinctions by age or causes of death have so far not been published. A feasibility study on producing cause of death registrations and further analysis of death statistics with CBS ran from 2023-2024 and came up with several recommendations on how to generate reliable cause of death statistics for the BES islands (CBS, 2024).

The number of annual deaths on the BES islands are relatively small, ranging from 95 to 196 annually during the 2011-2022 period (CBS, 2023a). Mortality statistics for the BES islands were not published prior to 2011.

Survey data

Data from surveys can inform on differences in health status, risk factors and access barriers between population groups (differing on socioeconomic status or age, for example) and between geographic areas. Several health surveys were conducted on the BES islands prior to 10/10/10 among adults or adolescents, but these surveys were done only once, and thus trend comparisons are not possible.

CBS implemented the Health Study Caribbean Netherlands, a health survey that includes information on health status, lifestyle determinants and healthcare use among adults, in 2013. The survey was repeated in 2017, while an Omnibus Survey in 2021 included several questions on health behaviors and self-perceived health (see Section 1.4). A survey on health behaviors and risk factors among adolescents, e.g. the Global School-Based Study Health Survey was completed on Bonaire in September 2023, while St Eustatius and Saba are collecting similar data in 2024. CBS will also include health-related questions on its youth monitor of school-based children between 12 and 18 years old in 2024, which is being performed on the BES islands as well as in the European Netherlands.

Disease and care registries

Data from disease and care registries can be collected in the hospital and GP practices on Bonaire, in the medical centers on St Eustatius and Saba (see Section 4.1.3), as well as in medical laboratories and by ZJCN. The disease and care registries on the BES islands are not well established for health information purposes and require (further) capacity building for the purposes of accurate registration, analysis, and use. As healthcare services for residents of the BES islands involve a lot of off-island care via referrals (see Section 3.1), people are treated by different providers that use their own data systems, many of which are not compatible. For those providers outside the Kingdom and across international borders, working with the providers (such as in Colombia) to collect essential data is a challenge.

The main disease registries are infectious disease and cancer statistics, which look at the number of positive test results. Care registries have an important role in monitoring improvements in certain aspects of the quality of care and include waiting, lead times and outcomes for medical services and the registration of medical incidents, calamities and complaints. This information is currently not available in the public domain, but a number of relevant indicators are included in the annual quality reports of Fundashon Mariadal and Saba Cares, for example. RIVM is involved in the implementation of the International Health Regulations (IHRs), including infectious disease surveillance, and began the establishment of a cancer registry for the BES islands in 2023 (see Section 6.1).

2.7 Regulation

2.7.1 Regulation and governance of third-party payers

VWS via ZJCN is responsible for funding and regulation, while also acting as the third-party payer to providers for services based on contractual agreements.[3]

2.7.2 Regulation and governance of provision

As the single payer, purchaser and hands-on steward of the health system on the BES islands, ZJCN is the primary actor in most areas of provision (see Table 2.1). This authority was anchored in the Healthcare Institutions Act BES, which came into effect in 2010. However, as a lot of secondary and tertiary care takes place outside of the borders of the BES islands (i.e. Aruba, Colombia, Curaçao, St Maarten, etc.) there are substantial limitations in quality assurance, compliance and authorization mechanisms.

[3] ZJCN staff on the BES Islands are officially employed by RCN, but this is funded by money from VWS that goes to RCN via BZK. The director of ZJCN is appointed by VWS. ZJCN staff in The Hague are employed by VWS.

Table 2.1 Overview of the regulation of providers

	Legislation	Planning body responsible	Licensing/ Accreditation	Quality assurance	Purchasing
Public health	Public Health Act (*Wet Publieke Gezondheid*)	Public entities, in collaboration with RIVM, ZJCN	Public health departments of the public entities	IGJ	ZJCN
Outpatient care (primary/ secondary)	Healthcare Institutions Act (*Wet zorginstellingen BES)*	ZJCN in collaboration with Fundashon Mariadal's hospital (Bonaire) and the two medical centers on St Eustatius and Saba	ZJCN	IGJ	ZJCN
Inpatient care (tertiary)	Healthcare Institutions Act (*Wet zorginstellingen BES)*	ZJCN in collaboration with off-island providers	ZJCN	Differs depending on the location of the facility (i.e. within BES (IGJ), within the Kingdom, or outside of the Kingdom)	ZJCN
Dental care	Healthcare Institutions Act (*Wet zorginstellingen BES)*	ZJCN	ZJCN	IGJ	ZJCN (for covered services)
Outpatient mental healthcare (primary/ secondary)	Healthcare Institutions Act (*Wet zorginstellingen BES)*	ZJCN in collaboration with Mental Health Caribbean	ZJCN	IGJ	ZJCN

	Legislation	Planning body responsible	Licensing/ Accreditation	Quality assurance	Purchasing
Inpatient mental healthcare (tertiary)	BES Supervision of Psychiatric Patients Act (*Wet tot regeling van het toezicht op psychiatrische patiënten BES*)	ZJCN in collaboration with Mental Health Caribbean and off-island providers	ZJCN	Differs depending on the location of the facility (i.e. within BES (IGJ), within the Kingdom, or outside of the Kingdom)	ZJCN
Pharmaceuticals (outpatient)	BES medicines supply act (*Wet op de geneesmiddelenvoorziening BES*)	ZJCN	ZJCN	IGJ	ZJCN
Long-term care	Healthcare Institutions Act (*Wet zorginstellingen BES)*	ZJCN in collaboration with the LTC providers	ZJCN	IGJ	ZJCN
University education of personnel	Higher Education and Scientific Research Act (*Wet op het hoger onderwijs en wetenschappelijk onderzoek*)	Ministry of Education, Culture and Science (Ministerie van Onderwijs, Cultuur en Wetenschap, OCW)	OCW	Education Inspectorate (Inspectie van het Onderwijs)	n/a

Notes: IGJ - Health Care and Youth Inspectorate (*Inspectie Gezondheidszorg en Jeugd*); LTC - long-term care; n/a - not applicable; OCW - Ministry of Education, Culture and Science (*Ministerie van Onderwijs, Cultuur en Wetenschap*); RIVM - National Institute for Public Health and the Environment (*Rijksinstituut voor Volksgezondheid en Milieu*); ZJCN - Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*).

Source: authors' own elaboration.

2.7.3 Regulation of services and goods

In comparison to the European Netherlands, the benefits package that BES island residents are entitled to is very similar even though the systems are markedly different in financing, governance and provision (full details on the breadth, scope and depth of the statutory system are in Section 3.3.1). However, the insured in the European Netherlands do not have their insurer as a mediator for nearly all health system interactions, as is the case on the BES islands. ZJCN also uses the European Dutch standards and rules for supplying data, signing contracts and delivering annual accounts. The BES Healthcare Insurance Decree provides the legal framework for the tax-financed insurance system, while the BES Healthcare Insurance Claims Regulation (Raz BES) sets out entitlements for

residents who work or reside legally on the BES islands (see Section 2.2.1). The entitlements, as per Raz BES, are examined annually for need to be adjusted or updated. The ZJCN team on Bonaire provides active advice on this, and the team in The Hague considers any adjustments that have recently been made to the benefits package in the European Netherlands.

There are regular consultations with the Ministry of Finance about the budget, and budgeting is done according to European Netherlands' Budgetary framework for healthcare; the Dutch Parliament in The Hague also has an oversight role and final say over this expenditure. The plans for healthcare on the BES islands are also briefly explained in the VWS budget and are regularly submitted to parliament in separate letters; such letters are coordinated with other ministries involved. While the EU has hardly any involvement with overseas territories, they were indirectly linked to the health system on the BES islands via joint procurement and distribution of COVID-19 vaccines.

2.7.4 Regulation and governance of pharmaceuticals

The BES Medicines Supply Act (*Wet op de geneesmiddelenvoorziening BES*) applies to all pharmacies on the BES islands, including with regard to the purchase and storage of medication. As the pharmacies on the BES islands source their medicines from the European Netherlands, medication is checked according to the G-Standard of the Z-Index, the Dutch drug database used by pharmaceutical stakeholders in the European Netherlands. This means that the Medicines Evaluation Board (*College ter Beoordeling van Geneesmiddelen*, CBG) has authorized the use of these products on the market and IGJ monitors their quality and manufacturing processes, as well as their advertising. The regulation of wholesalers and pharmacies applies in the same way as in the European Netherlands, as per the BES Medicines Supply Act.

Health Technology Assessment (HTA) is employed in the European Netherlands; thus, ensuing changes in entitlements guided by HTA are also followed for the BES islands, primarily concerning new medicines. ZiNL is the advisory agency for VWS providing guidance on whether entitlements need to be adapted based on HTA findings. Patent protection falls under the competence of ACM and NZa is the overarching regulator.

2.7.5 Regulation of medical devices and aids

For medical devices and aids, the regulations on the BES islands are the same as in the European Netherlands, with one exception: glasses are reimbursed for BES residents up to a certain threshold (see Section 3.4.1). Regarding purchasing and procurement, ZJCN has contracts with providers (private enterprises). GPs prescribe their use, while ZJCN has an internal system to monitor potential over-prescription and abuse.

2.8 Person-centered care

2.8.1 Patient information

Since 10/10/10, progress has been made on the availability of accessible (online) information on the services of governmental organizations (first ZVK, then ZJCN; also RCN) and service providers, their opening times and contact information. ZJCN also has physical offices on all three islands, although the ones on St Eustatius and Saba are small and focus on processing payments to providers as well as logistical and practical concerns related to their referrals. Furthermore, clearer and public definitions of roles may help the community to better understand the health system. For example, although a referring doctor can monitor the status of a referral, patients may find it more challenging to understand the process and determine whether their claim was delayed, rejected, or possibly never

fully submitted. In 2022, focus groups were established by ZJCN for St Eustatius and Saba to host regular meetings with patient representatives and ZJCN's complaints officers (*klachtenfunctionaris*) (BES-reporter.com, 2022).

Recent developments on making patient information more accessible also include the English-language website "Sabalovin" to provide information on sexual and reproductive health on Saba; there is also a website with information in all four commonly used languages of the BES islands about unplanned pregnancies (infopuntonbedoeldzwanger.nl, n.d.). Table 2.2 provides further detail on patient information.

Table 2.2 Patient information

Type of information	Is it easily available (Y/N)	Comments
Information about statutory benefits	Yes	
Information on hospital clinical outcomes	No	
Information on hospital waiting times	No	
Comparative information about the quality of other providers (for example GPs)	No	
Patient access to own medical record	No	Not digitally available
Interactive web or 24/7 telephone information	No	
Information on patient satisfaction collected (systematic or occasionally)	Yes*	In some provider quality reports
Information on medical errors	No	Some details mentioned in some provider quality reports

Note: *for Saba cares and ZJCN.
Source: authors' own elaboration.

2.8.2 Patient choice

Although freedom of choice technically exists, choice of GP, specialist and other health professionals are restricted due to the small-scale nature of the health system, and there is no choice regarding insurer (see Table 2.3). Referrals abroad are limited to the facilities contracted by ZJCN and patients are referred to these through their GP or specialist; medical officers from ZJCN on Bonaire then approve or decline (the reimbursement of) these referrals (see Section 5.2). In this context, the policy of "close if possible, further away if necessary" (*dichtbij als het kan, verder weg als het moet*) is applied, meaning that care is first arranged in areas that are closest in proximity, such as the CAS islands, before exploring providers in Colombia or the European Netherlands.

Those insured by ZJCN who want to receive care outside the contracted network of organizations and still be covered need approval from ZJCN under Article 10, paragraph 4 (known as 10.4) of the BES

Healthcare Insurance Decree (see Section 3.2). This is particularly important due to the additional logistics and costs involved.

Table 2.3 Patient choice

Type of choice	Is it available (Y/N)	Do people exercise choice? Are there any constraints (E.g. choice in the region but not country-wide)? Other comments?
Choices around coverage		
Choice of being covered or not	No	Health insurance is compulsory and automatically extended to legal residents; residents can pursue treatment not approved by ZJCN but bear the costs themselves
Choice of public or private coverage	No	Private coverage by insurance companies remains unfeasible due to the small-scale of the islands; there is no voluntary health insurance available for services not included in the benefits basket
Choice of purchasing organization	No	
Choices of provider		
Choice of primary care provider	Limited	Limited availability due to small-scale of the islands (while Bonaire has several private GP practices, the GPs on Saba and St Eustatius number a handful each and are directly employed by the medical centers)
Direct access to specialists	No	GPs have a gatekeeping function (*poortwachter*) and a referral is required
Choice of hospital	Limited	Limited availability due to small-scale of the islands
Choice to have treatment abroad	Depends	For mandatory health insurance: limited to contracted facilities. 10.4 procedure is also possible

Type of choice	Is it available (Y/N)	Do people exercise choice? Are there any constraints (E.g. choice in the region but not country-wide)? Other comments?
Choices of treatment		
Participation in treatment decisions	No	Medical Treatment Agreement Act (WGBO) does not apply; however, treating doctors do discuss the options with patients and/or their families
Right to informed consent	No	Medical Treatment Agreement Act (WGBO) does not apply
Right to request a second opinion	Yes	Regulation on health insurance claims BES
Right to information about alternative treatment options	No	Medical Treatment Agreement Act (WGBO) does not apply

Notes: GP - general practitioner; ZJCN - Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*).
Source: authors' own elaboration.

2.8.3 Patient rights

Major pieces of legislation that safeguard the right to informed decision-making and informed consent for medical treatment, the right to quality health services and complaint avenues, and that protect electronic data exchange in healthcare do not apply on the BES islands. In the European Netherlands these are the Medical Treatment Contracts Act (*Wet op de geneeskundige behandelingsovereenkomst*, WGBO), the Healthcare Quality, Complaints and Disputes Act (*Wet Kwaliteit Klachten Geschillen Zorg*, Wkkgz) and the Electronic Data Sharing in Health Care Act (*Wet electronische gegevensuitwisseling in de zorg*, Wegiz). The BES Personal Data Protection Act (*Wet bescherming persoonsgegevens BES*) applies to all personal data processing under the BES legislation, including for healthcare, and the WGBO has been adapted into its own legislation for the BES islands. Notably missing in the BES version of the WGBO are: the provision granting 16- and 17-year-olds the right to enter into a treatment agreement without parental involvement (7:447 of the European Netherlands Civil Code) and the (limited) possibility to grant access to or a copy of the data from the patient's file (7:458a).

The Healthcare Institutions Act BES stipulates the requirement of a complaint's procedure by each healthcare provider (see Table 2.4). In 2015, the *Meldpunt Gezondheidszorg Caribisch Nederland* was established by IGJ. Providers are obliged to record medical errors and there are procedures in place where people can file complaints. They can do this directly on the websites of the providers themselves, and also with ZJCN, where since 2022 there has also been an independent, external complaints advisory committee in specific cases (see Section 6.1). Objective information on the nature of patient complaints beyond the number received and information on handling time is not available. For residents who wish to submit a complaint to ZJCN, they can be regarding providers, daily allowances, logistical concerns regarding referrals (i.e. transportation or accommodation) or waiting times, among others (RCN, n.d.). ZJCN's 2022 internal satisfaction survey shows that that

45.9% of Bonairean respondents, 56.8% of Statian respondents and 56.8% of Saban respondents were not aware of ZJCN's complaint procedure (VWS, 2022a).

Table 2.4 Patient rights

	Y/N	Comments
Protection of patient rights		
Does a formal definition of patient rights exist at the national level?	Yes	Medical Treatment Agreement Act (WGBO) does not apply
Are patient rights included in legislation?	Yes	Medical Treatment Agreement Act (WGBO) does not apply
Does the legislation conform with WHO's patient right framework?	Yes	
Patient complaint avenues		
Are hospitals required to have a designated desk responsible for collecting patient complaints?	Yes	Healthcare Institutions Act BES
Is a health-specific Ombudsman responsible for investigating and resolving patient complaints about health services?	Yes	National Ombudsman in the European Netherlands
Are there other complaint avenues?	Yes	The complaints procedures of healthcare organizations and ZJCN
Liability/compensation		
Is liability insurance required for physicians and/or other medical professionals?	Depends on the profession but explicitly mentioned in BES legislation	
Can legal redress be sought through the courts in the case of medical error?	Yes	
If a tort system exists, can patients obtain damage awards for economic and non-economic losses?	Yes	

	Y/N	Comments
Can class action suits be taken against healthcare providers, pharmaceutical companies, etc.?	Yes	

Note: ZJCN - Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*).
Source: authors' own elaboration.

2.8.4 Patients and cross-border healthcare

Residents with mandatory, tax-financed health insurance from ZJCN have the right to reimbursement of healthcare services abroad according to the established conditions and reimbursements levels, and ZJCN contracts with off-island providers that offer services covered by the benefits package. Healthcare provision on the islands themselves has increased considerably since 10/10/10 with more services becoming available, particularly in Bonaire's hospital (see Section 4.1.1). Section 3.1 provides data on referral costs, as well as trends on locations providing care and total numbers. The Dutch Caribbean Hospital Alliance (DCHA) represents a new undertaking by regional providers to further deliver more care nearby or in the region (see Box 5.2).

3. Financing

- Health financing information for the BES islands is not readily available in international databases like the WHO's Global Health Expenditure Database. The BES and CAS islands are not included in the Kingdom of the Netherlands' data in these sources.
- Since the 2010 governance reforms, health spending in the BES islands has increased significantly from US$ 105 million in 2012 to over US$ 209 million in 2023. This increase is due to efforts to elevate healthcare standards and to accommodate growing healthcare demands, including from new residents.
- The primary source of health revenue in the BES islands is general tax revenue allocated by the Ministry of Finance to VWS for ZJCN. Residents pay income taxes, but these are not directly linked to the allocation from the Ministry of Finance to VWS.
- In 2022, per capita health spending in the BES islands was nearly equivalent to that in the European Netherlands (expressed in US$). However, if the logistics costs of off-island referrals are excluded, per capita spending in the BES islands is more than US$ 800 below that of the European Netherlands.
- Tax-financed health insurance by ZJCN is mandatory for all BES island residents, covering a similar range of services to those in the European Netherlands (with no deductible and limited cost sharing). However, there are no voluntary insurance options available to cover, for example, dental care.
- The largest portion of health spending in the BES islands goes to prospective payments for local providers and costs associated with medical referrals off the islands.
- The COVID-19 pandemic led to a significant reduction in off-island referrals in 2020, with a gradual recovery by the end of 2022.
- St Eustatius had the highest number of total and per capita off-island referrals from 2017 to 2020, while Saba had the most from 2021 to 2023. The cost of such referrals includes significant expenditures on transportation and accommodation.
- Out-of-pocket payments are not formally tracked, but there is some information on how residents cover the costs of care themselves when they visit non-contracted providers. Private spending on health, both within and beyond the BES islands, is unknown.
- Providers are paid through various models, including budget transfers, fee-for-service, and age-adjusted capitation for GPs (on Bonaire).

3.1 Health expenditure

Information on health financing for the BES islands is not widely and publicly available, and neither the BES nor the CAS islands are included in the data for the Kingdom of the Netherlands in international sources like the WHO's Global Health Expenditure Database. For residents of the BES islands there is no option to opt out of the universal health insurance scheme from ZJCN or obtain private insurance. Services are mostly provided without cost-sharing. Nearly all health spending is public and captured by VWS outlays (currently by ZJCN and prior to that by ZVK, under different methodologies). Therefore, Table 3.1 has been modified from other Health System Reviews to present the relevant and available data for this context. Data for private spending, which in the context of the BES island would mostly consist of direct payments for services not contracted by ZJCN (such as dental care), some cost sharing under Article 10.4 and for some medical aids (eye glasses and orthopedic shoes), is not routinely available.

Before the governance reforms of 10/10/10 and when the BES islands still were part of the Netherlands Antilles, health spending was estimated (at around US$ 30-40 million) to be significantly lower than the earliest available data, which was just under US$ 105 million in 2012. As part of the

effort undertaken to bring the level of care on the BES islands up to an “acceptable” standard, previous historic underfinancing was quickly replaced by increases in the annual budget. Additionally, continued immigration, including from the European Netherlands, to the BES islands and automatic entitlement to tax-financed health insurance offered by ZJCN upon registration as a resident since 2010 has necessitated further investments in the health system. According to VWS accounts data, current health expenditure for both care on the BES islands and for insured residents receiving care with referrals off the islands has doubled since 2012 and amounted to just over US$ 209.5 million in 2023 (see Fig. 3.1).

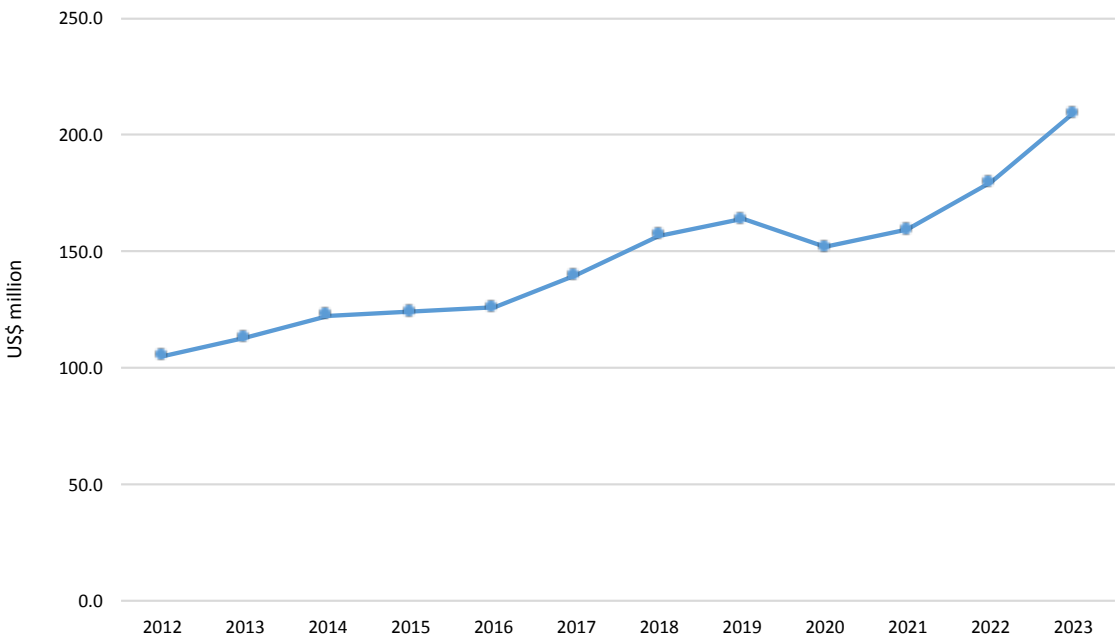
Table 3.1 Trends in health expenditure for the BES islands, 2012-2022 or latest available

	2012	2015	2019	2020	2021	2022	2023
Current health expenditure in million US$	104 990 000	123 764 524	163 720 579	151 672 978	159 214 586	179 417 592	209 506 209
Current health expenditure per capita in US$	4 707.23	5 032.51	6 507.95	5 836.49	5 939.73	6 471.10	7 121.70
Current health expenditure as % of GDP	17.7%	19.1%	22.7%	23.8%	21.7%	n/a	n/a

Sources: VWS (2024a), CBS (2023a).

Notes: 1. Financing data 2012-2018 and 2019-2022 were collected and shared with the authors using different methodologies; 2. Conversions from EUR to US$ were made with internal exchange rates provided by VWS; 3. The BES islands have fully not participated in the International Comparison Program (ICP), so purchasing power parity (PPP) data is not available.

Fig. 3.1 Annual current health expenditure, BES islands, 2012-2023

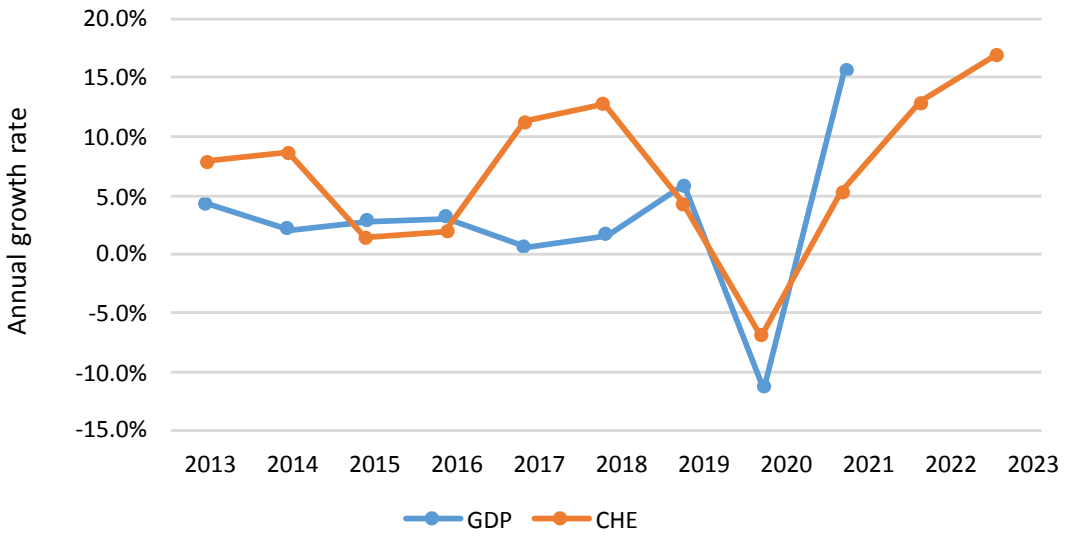


Note: financing data 2012-2018 and 2019-2022 were collected and shared with the authors using different methodologies.

Source: VWS (2024a).

Annual GDP growth rates on the BES islands show growth at a relatively steady rate (between 0.5% and 5.9%) during the 2010s before dropping drastically at the beginning of the COVID-19 pandemic. Growth in current health expenditure had two periods of large growth in the 2010s: first after the reforms of 10/10/10 and then again starting in 2017 (see Fig. 3.2). By the outbreak of the pandemic, there was a large drop in the care paid via claims (bills) for services administered by off-island providers due to the closing of borders and the decrease in referrals (see below). Once travel restrictions were relaxed, not only did more referrals once again lead to a rise in health spending, but the impact of growing population (13.2% rise just from 2020-2023) as well.

Fig. 3.2 Trends in annual growth rates of health expenditure and GDP, BES islands, 2013-2023



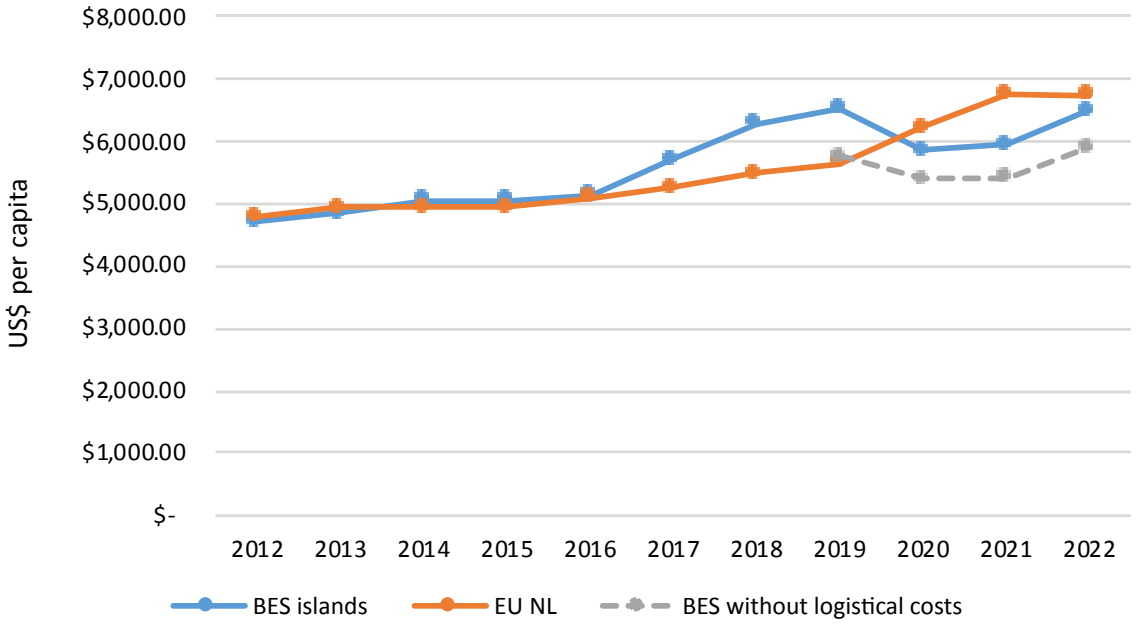
Notes: 1. CHE - current health expenditure; GDP - gross domestic product; 2. GDP data available only until 2021; 3. Financing data 2012-2018 and 2019-2022 were collected and shared with the authors using different methodologies.

Sources: VWS (2024a), CBS (2023a).

As a share of GDP, health spending on the BES islands stood at 21.7% of GDP in 2021 and has consistently been a much greater share than in the European Netherlands (11.3% in 2021) since 10/10/10. While this helps underline the extent that the funding and health system play in the overall economy of the BES islands, the reporting of these figures should not be understood as a 1:1 comparison to the European Netherlands, which has a GDP much higher in relative terms than that of the BES islands, and therefore health spending accounts for a smaller share.

Fig. 3.3 shows that per capita health spending in the European Netherlands (US$ 6 729) was just above that of the BES islands (US$ 6 471) in 2022. If the logistical costs of off-island referrals (accommodation and ground transportation, flight tickets (public flights and charters), per diem allowances, etc.) are removed, per capita health spending on the BES islands was US$ 5 895 in 2022, though these data are only available for comparison for recent years given the accounting methodologies of VWS. These have also not been adjusted for purchasing power parity.

Fig. 3.3 Trends in health expenditure per capita, BES islands, European Netherlands and BES islands without logistical costs of referrals in US$, 2012-2022



Notes: 1. Financing data 2012-2018 and 2019-2022 were collected and shared with the authors using different methodologies and prior to 2019 do not differentiate between medical and logistical referral costs; 2. Conversions from EUR to US$ were made with internal exchange rates provided by VWS.

Sources: VWS (2024a), CBS (2023a), OECD (2024).

Table 3.2 details the shares of current health expenditure that went to different types of care between 2019 and 2023, while Fig. 3.4 shows a more detailed view of the shares by spending function for 2023. More than half of all health spending went toward prospectively fixed budgets (voorschotbasis) via contracts that ZJCN has with a set list of providers that operate on the BES islands in 2023, accounting for US$ 116.1 million. Primary recipients include Fundashon Mariadal, SEHCF, Saba Cares, Chapelpiece Health and Recreational, Stichting Hospice Bonaire, BESt Care Zorgwinkel B.V., St Eustatius Auxiliary Home Foundation, Mental Health Caribbean, Stichting Zorg en Welzijn Groep and Fundashon pa Kwido di Personanan Desabilita. Care paid via claims basis (declaratiebasis) was the second largest share of health expenditure in 2023, at US$ 75.5 million, nearly 60% of which was for the logistical and medical costs of referrals. Costs of off-island referrals were US$ 43.7 million in 2023 and averaged US$ 37.9 million between 2019 and 2022 (on average US $ 16.6 million for logistical costs and US$ 21.3 million for medical costs of referrals). Of the US$ 21.9 million spent on the logistical costs of referrals in 2023, the largest amounts went to the airline EZ Air (US$ 4.7 million), accommodation costs (US$ 4 million), the air ambulance of Fundashon Mariadal (US$ 3.4 million), national helicopters (US$ 2.3 million) and the per diem allowances given to the referred and their companions (US$ 2 million). US$ 1.5 million was also spent on ground transport in 2023.

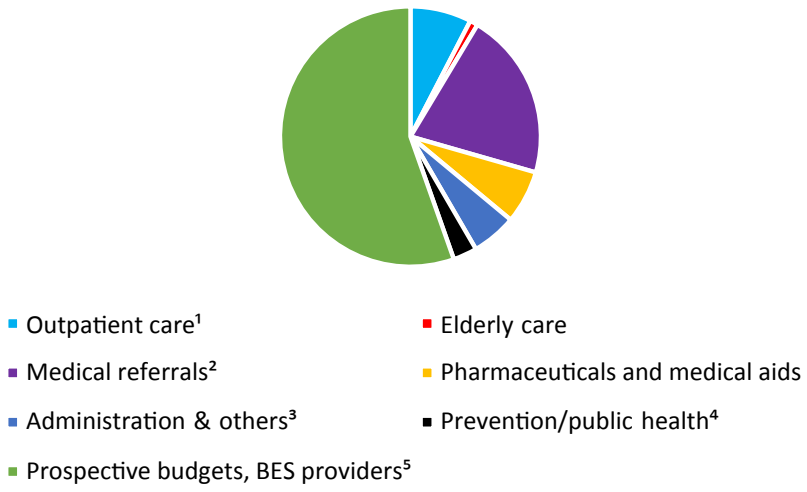
Table 3.2 Health spending according to claims data, prospective budgets, administrative

	2019	2020	2021	2022	2023	% change 2019-2023
General practitioner	5 548.0	3 581.7	7 340.9	7 218.7	8 010.4	44.4%
Medical aids	3 022.0	1 252.6	1 352.2	1 374.4	1 612.6	-46.6%
Laboratory	4 535.5	3 729.0	3 106.1	3 459.6	4 245.6	-6.4%
Paramedical care	2 041.7	1 739.4	1 640.5	1 968.6	2 244.5	9.9%
Dental care	1 703.8	1 279.0	1 214.9	1 538.5	1 395.0	-18.1%
Logistic costs medical referrals	15 987.5	14 314.2	11 487.5	19 376.1	21 850.6	36.7%
Medical costs medical referrals	26 389.1	17 918.6	18 103.0	22 040.7	21 862.0	-17.2%
Pharmaceutical costs	11 774.2	12 258.4	11 347.9	10 169.5	12 218.5	3.8%
Elderly care	1 124.1	2 686.6	2 103.4	2 786.2	2 094.4	86.3%
Care paid on claims data	72 125.8	58 759.4	57 696.3	69 932.3	75 533.6	4.7%
Prospective budgets to on-island providers	79 301.6	81 974.0	87 946.7	94 048.0	116 058.0	46.4%
Governance, health system and financing administration	11 327.7	9 898.0	10 046.5	11 203.6	11 693.0	3.2%
Prevention / public health	965.5	1 041.5	3 525.1	4 233.7	6 221.6	544.4%
Current health expenditure	163 720.6	151 673.0	159 214.6	179 417.6	209 506.2	28.0%

Note: logistic costs medical referrals include national helicopters, the air ambulance at Fundashon Mariadal, EZ Air, SXM Airways, Winair, Windward Express Airways, Bonaire Travel, medical ground transportation, accommodation costs, per diem fees and “other logistical costs”.

Source: VWS (2024a).

Fig. 3.4 Share of current health expenditure by grouped function, 2023



Notes: 1. Includes GP, laboratory, paramedical and dental care; 2. Includes logistic and medical costs associated with off-island care; 3. Includes health system governance, administration and other spending; 4. Includes grants to islands' public health departments and RIVM funding for the BES islands; 5. Includes the list of providers listed in the paragraph above Table 3.2.

Sources: VWS (2024a), OECD/Eurostat/WHO (2017).

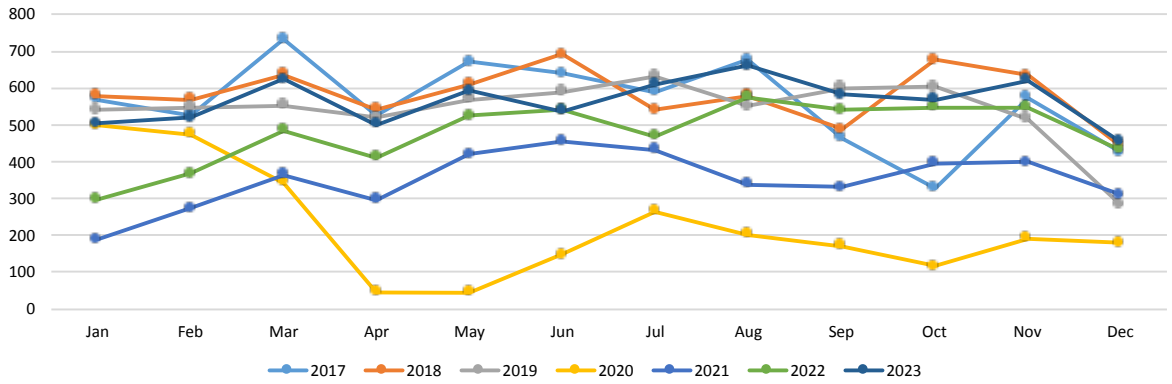
On average 5 658 patients were referred annually for care off of the BES islands between 2017 and 2023, and a large reduction for all referrals for all islands can be seen during 2020 and 2021 reflecting the impact of the COVID-19 pandemic (see Fig. 3.5). Of the three islands, St Eustatius had the most referrals on a per capita basis in from 2017 to 2020, while Saba had the most per capita from 2021 to 2023 (see Table 3.3). While these data cannot be further broken down to show that some residents had multiple referrals and others none in a given year, it does provide further context to the fact that Fundashon Mariadal on Bonaire has a much larger capacity and portfolio to treat residents than either of the medical centers on St Eustatius or Saba and that relatively more Statians and Sabans therefore have to go off island to receive care than Bonaireans.

Table 3.3 Referrals per 100 residents of the individual BES islands, 2017-2023

	Bonaire	St Eustatius	Saba
2017	15.1	80.8	59.6
2018	12.2	92.7	69.5
2019	9.3	94.7	86.3
2020	4.4	37.1	30.7
2021	5.7	51.2	71.1
2022	7.8	61.9	102.7
2023	8.3	79.2	105.9

Source: VWS (2024a).

Fig. 3.5 Total number of referrals for BES residents by month, 2017-2023



Source: VWS (2024b).

Table 3.4 shows the percentage of referrals for each location for residents of the individual islands from 2017 to 2023. Here, the impact of the COVID-19 pandemic, the closing of international borders and the general challenges of travel are reflected in the reductions in the number of Statians and Sabans being referred to locations such as St Martin (FR) and Colombia, as well as the lower share of those from Bonaire going to Colombia and instead being treated on Aruba and Curaçao (if they could not be treated at Fundashon Mariadal). It shows that in 2023, of those referred off-island, Bonaireans were mostly referred nearby to Aruba and Curaçao, while Statians and Sabans were mostly sent to close-by St Maarten. Statians and Sabans can also be referred to Aruba (Horacio Oduber Hospital, HOH), Curaçao (Curaçao Medical Center, CMC) or Colombia, of course, if the needed care is not available at St Maarten Medical Center (SMMC).

Table 3.4 Location and share of off-island referrals, 2017-2023

	Bonaire						
	2017	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**
Aruba	30.4%	35.1%	30.6%	22.0%	52.1%	52.2%	49.7%
Colombia	14.8%	22.5%	40.5%	25.6%	4.6%	11.9%	11.5%
Curaçao	51.1%	35.1%	23.6%	43.1%	35.5%	28.7%	31.6%
Guadeloupe	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%
European Netherlands	2.1%	4.4%	3.3%	8.2%	6.4%	6.2%	6.9%
Germany	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Saba	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.0%
St Martin (FR)	0.2%	0.7%	0.4%	0.2%	0.0%	0.1%	0.0%
St Maarten	1.3%	1.8%	1.6%	0.4%	1.1%	0.9%	0.3%
Total referrals	**2 892**	**2 388**	**1 874**	**928**	**1 235**	**1 765**	**2 006**

St Eustatius

	2017	2018	2019	2020	2021	2022	2023
Aruba	1.7%	3.4%	1.2%	0.3%	1.9%	0.4%	1.5%
Bonaire	0.9%	0.7%	3.0%	7.5%	2.4%	2.4%	2.6%
Colombia	4.8%	3.7%	2.5%	2.0%	0.4%	1.4%	1.7%
Curaçao	0.3%	0.2%	0.2%	13.5%	3.7%	2.6%	2.3%
Guadeloupe	1.0%	0.8%	0.6%	0.3%	0.1%	0.0%	0.0%
Martinique	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
European Netherlands	0.1%	0.1%	0.1%	0.6%	0.4%	0.6%	0.7%
Saba	0.0%	0.0%	0.0%	5.0%	6.6%	0.0%	0.0%
St Martin (FR)	15.8%	35.6%	34.4%	20.4%	3.1%	0.4%	0.0%
St Maarten	75.4%	55.4%	58.0%	50.3%	81.4%	92.1%	91.1%
Total referrals	**2 627**	**3 103**	**2 973**	**1 166**	**1 609**	**2 008**	**2 607**

Saba

	2017	2018	2019	2020	2021	2022	2023
Aruba	5.4%	3.7%	2.5%	0.7%	1.9%	2.3%	4.0%
Bonaire	3.7%	0.7%	1.1%	7.6%	1.7%	1.4%	1.3%
Colombia	4.7%	5.7%	4.8%	3.7%	0.7%	1.1%	1.2%
Curaçao	0.6%	0.6%	0.5%	5.9%	2.5%	1.4%	1.9%
Guadeloupe	0.9%	0.5%	0.8%	0.5%	0.0%	0.0%	0.0%
European Netherlands	0.5%	0.5%	0.3%	0.8%	0.5%	0.3%	0.3%
St Martin (FR)	10.1%	30.1%	25.5%	14.3%	1.9%	0.4%	0.0%
St Eustatius	0.0%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%
St Maarten	74.1%	58.2%	64.6%	66.4%	90.3%	93.2%	91.4%
Total referrals	**1 197**	**1 498**	**1 653**	**593**	**1 363**	**1 962**	**2 156**

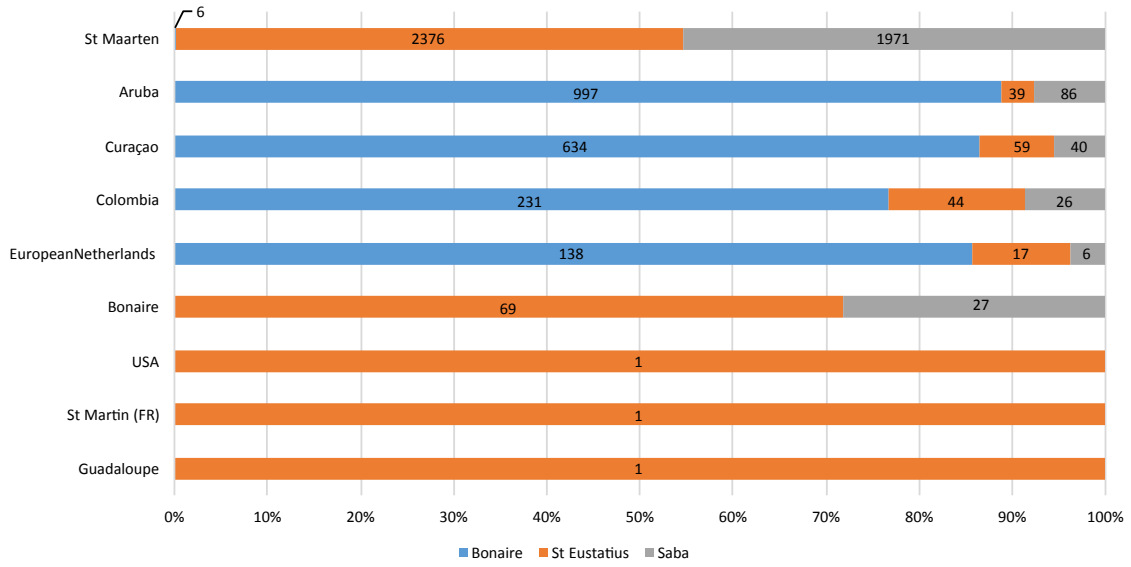
Source: VWS (2024b).

Fig. 3.6 shows the distribution and total number of referrals by specific location by individual island in 2023. Relating these referrals to population size, i.e. in terms of referrals per 100 residents, the proportions of Bonaireans (0.96), Sabans (1.3) and Statians (1.3) going to Colombia for off-island, more complex care are quite similar. However, per 100 residents, more Bonaireans (0.6) and Statians (0.5) go to the European Netherlands for more complex care than Sabans (0.3).

Of the US$ 21.9 million that was spent on the medical costs of referrals in 2023, the largest recipients were SMMC (US$ 6.9 million), the Curaçao Medical Center (US$ 4.5 million) and the hospital on Aruba (US$ 3 million), followed by hospitals in the European Netherlands (US$ 2.4 million) and Colombia (US$ 1.2 million). Fig. 3.7 details the top medical classifications of referrals per BES island

to Aruba, Curaçao or St Maarten in 2023. The records show that the top referrals for Bonaireans to both Aruba and Curaçao were for radiology, while the top reason for both Statians and Sabans to go to St Maarten was for nephrology (dialysis).

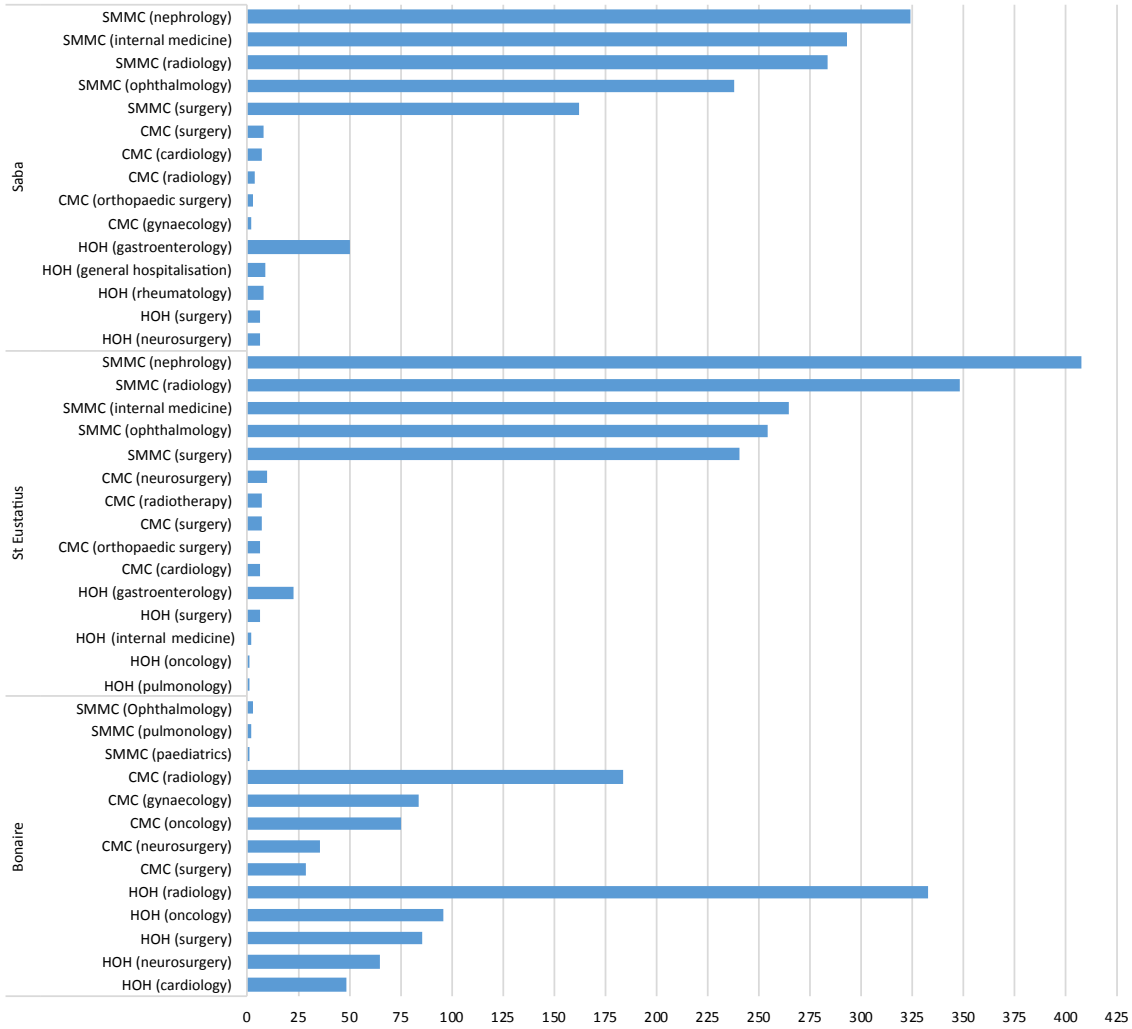
Fig. 3.6 Total number and share of referrals by location for residents of the individual BES islands, 2023



Notes: 1. FR - France; 2. European Netherlands primarily refer to Amsterdam University Medical Center and Erasmus University Medical Center (in Rotterdam); 3. There are no extra medical costs for ZJCN for Statians and Sabans treated on Bonaire, as it is part of Fundashon Mariadal's budget, only the logistical costs are extra.

Source: VWS (2024b).

Fig. 3.7 Number of off-island referrals for residents of the individual BES islands by top 5 classification to Aruba, Curaçao or St Maarten, 2023

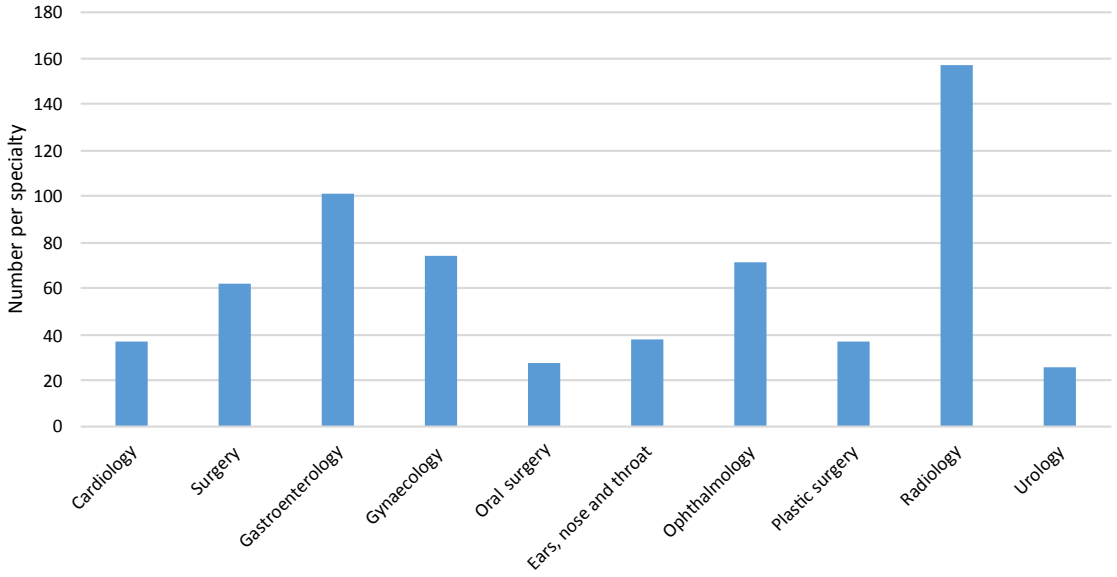


Notes: 1. HOH - Horacio Oduber Hospital (Aruba); CMC - Curaçao Medical Center (Curaçao); SMMC - St Maarten Medical Center (St Maarten); 2. The 6 referrals from Bonaire to SMMC were for pediatrics (1), pulmonology (2) and ophthalmology (3).

Source: VWS (2024b).

In total, 9.3% or 631 of the total off-island referrals in 2023 were to places other than Aruba, Curaçao or St Maarten (see Fig. 3.8). The leading classifications of these referrals were for radiology (157), gastroenterology (101) and gynecology (74).

Fig. 3.8 Top 10 referrals by specialty for off-island care that were not to Aruba, Curaçao or St Maarten, 2023



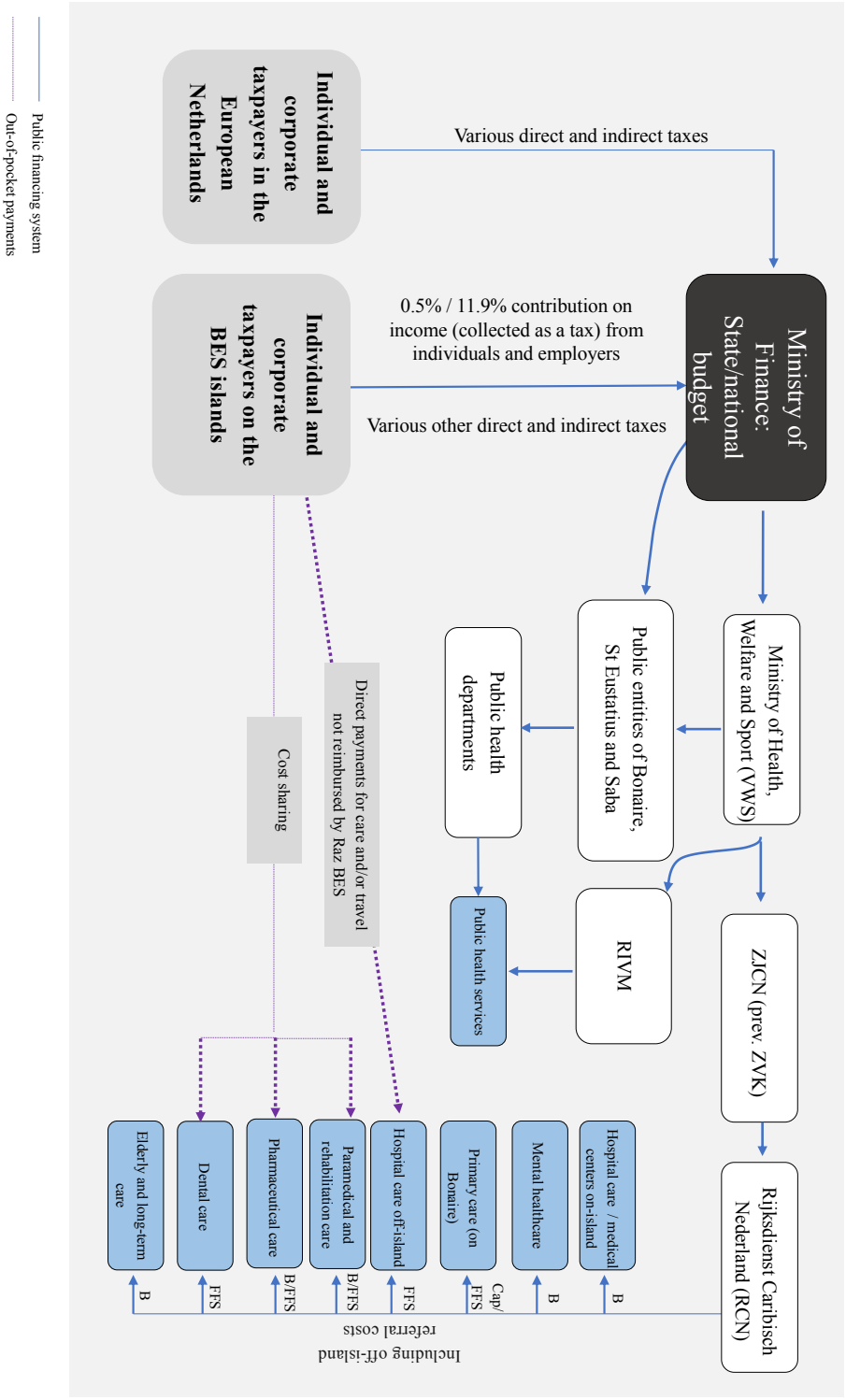
Source: VWS (2024b).

3.2 Sources of revenue and financial flows

In regards to the sources of revenue, the system for financing healthcare on the BES islands is significantly different than the European Netherlands. The European Netherlands has various coverage legislatively-anchored schemes for curative care (*Zorgverzekeringswet*, Zvw), long-term care *(Wet langdurige zorg,* Wlz), and social support *(Wet maatschappelijke ondersteuning,* Wmo), and youth care *(Jeugdwet*) that collectively guarantee healthcare coverage, and which are funded by a mix of premiums, income-dependent contributions as well as general taxes. The Health Insurance Act (Zvw) consists of a combination of compulsory income related contributions paid by employers and premiums paid by the insured to one of several insurers in a competitive system. The insured also face a mandatory deductible of at least EUR 385 per year for those over the age of 18 (with some exceptions) and have options to purchase voluntary, supplemental coverage for services not provided in the basic benefit package. Additionally, for the Long-Term Care Act (Wlz) income related contributions are levied and extensive cost sharing requirements are in place.

For the BES islands, the health system is nearly exclusively funded from general tax revenue from the Ministry of Finance in The Hague, including from residents and corporations located on the BES islands and in the European Netherlands. The agreed budget allocations are transferred to VWS for ZJCN to run the health system (see Section 3.3.2). Fig. 3.9 visualizes the main financial flows of the health system.

Fig. 3.9 Financial flow chart of the health system on the BES islands



Notes: B - budget payments; Cap - capitation payments; FFS - fee-for-service payments; Raz BES - BES Healthcare Insurance Claims Regulation (*Regeling aanspraken zorgverzekering BES*); RIVM - National Institute for Public Health and the Environment (*Rijksinstituut voor Volksgezondheid en Milieu*); ZJCN - Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*); ZVK - Health Insurance Office (*Zorgverzekeringskantoor*).

Source: authors' own elaboration.

3.3 Overview of the statutory financing system

3.3.1 Coverage

Breadth: who is covered?

The tax-financed, universal health insurance scheme provided by ZJCN is obligatory for all residents of the BES islands. All those legally registered as living on Bonaire, St Eustatius and Saba, as well as individuals who live abroad and work on the BES islands, are automatically entitled to the single health insurance package provided by ZJCN; there are no private insurers and there are no other options to obtain health insurance, neither substitutive nor supplementary/complementary.

The data that ZJCN uses to enroll new members comes from the General Register Office (*Burgerzaken*). As soon as someone registers as a resident on one of the islands, this is shared with ZJCN. This also represents a difference with the health system in the European Netherlands, where enrollees have to decide themselves on which insurer to sign up with and initiate the process themselves. Care for undocumented persons is not covered by ZJCN and they have to pay for their medical care out-of-pocket. In case of acute care (*noodzakelijke zorg*), there is a duty to treat (*behandelplicht*). Further discussions on acute care and undocumented patients are ongoing.

Scope: what is covered?

The benefits package is similar to that in the European Netherlands; legal texts have been adopted for the BES context, stipulated by implementation of the BES Healthcare Insurance Decree (*Besluit zorgverzekering BES*) and the BES Healthcare Insurance Claims Regulation (*Regeling aanspraken zorgverzekering BES*, Raz BES). A list of the 12 general entitlements in the benefit package as given in Article 6 of the BES Healthcare Insurance Decree includes:

- care provided by GPs (*huisartsenzorg*);
- care provided by medical specialists (*medisch-specialistische zorg*);
- hospital care (*ziekenhuiszorg*);
- paramedical care (*paramedische zorg*);
- dental care (*tandheelkundige zorg*). Dental care for children until the age of 18 is fully covered. For the elderly only, specialist dental care and a set of false teeth are covered;
- pharmaceutical care (*farmaceutische zorg*);
- auxiliary care (*hulpmiddelenzorg*);
- obstetric care (*verloskundige zorg*);
- patient transport (*ziekenvervoer*);
- maternity care (*kraamzorg*);
- long-term care in connection with old age, disease or disability, whether or not accompanied by stay in an institution (*langdurige zorg in verband met ouderdom, een ziekte of handicap, al dan niet gepaard gaande met verblijf in een instelling*);
- examination of newborns for serious rare diseases to be designated by ministerial regulation (*onderzoek bij pasgeborenen naar bij ministeriële regeling aan te wijzen ernstige zeldzame ziekten*).

The coverage of services in the benefits basket does not ensure their ready availability (as in the European Netherlands or any health system), as the isolated nature of the islands and challenges in recruiting and retaining workforce mean that planning for workforce is a major issue (see Section 4.2). For instance, Saba has no on-island dentist, meaning that patients either go off-island for dental care or wait for a visiting dentist to come to Saba.

Depth: how much of benefit cost is covered?

The health services covered by ZJCN are provided free of charge at the point of service. As poverty is a large issue on the islands, healthcare was designed to be as accessible as possible, though there is some cost sharing for some medical aids (glasses and orthopedic shoes, see below).

In cases where residents want to pursue non-covered second opinions[4] or alternative care options outside of what ZJCN readily covers or providers that they contract with, they can apply to have it covered under Article 10.4 of the BES Healthcare Insurance Decree, after which ZJCN decides on whether to cover part of full treatment. For a resident to receive permission to attain this care outside of network, ZJCN sets a number of criteria before granting permission, including:

- There must be a clear diagnosis and the treatment must be effective;
- The (same) healthcare cannot be provided twice;
- Travel, accommodations and any transportation costs are at the insured person's own expense;
- ZJCN will not be involved in making the arrangements;
- A clear, specified quote (*offerte*) must be submitted in advance;
- Based on the healthcare costs stated in the quotation, the average costs will be fully or partially reimbursed;
- The reimbursement does not exceed the customary rate for this care on the BES island where the insured person resides, or, in the absence of such a rate, the rate typically reimbursed by ZJCN on the territory of the BES islands. If such a rate cannot be determined, the reimbursement is at most the rate that can be reasonably considered appropriate in the Dutch market;
- ZJCN cannot guarantee the quality of the healthcare abroad;
- The insured person is responsible for the financial transactions with the healthcare provider and the medical costs incurred are subsequently claimed at ZJCN.

Standardized data on Article 10.4 cases are not publicly available. A snapshot analysis of 129 selected Article 10.4 cases between 2019 and 2022 provided by ZJCN found that just over US$ 30 000 total was spent out-of-pocket (OOP) by BES islands residents and not reimbursed. Locations in this snapshot analysis of where care was sought out of network include Belgium, the Dominican Republic, the European Netherlands, France, Suriname, Switzerland and the United States of America. These data were provided upon request and are not readily compiled and monitored in a way that make systematic and trend analysis possible.

3.3.2 Collection

General taxation that flows through the Ministry of Finance in The Hague is the main source of health system financing. Residents pay a health insurance contribution (0.5% of income, which is included in the general 30.4% tax rate on income); the contribution base is capped at US$ 36 082. Table 3.5 shows the contributions payable on an annual basis for a given income: those with lower incomes are exempt from paying the health contribution and it is capped at US$180 for those with

[4] Second opinions are covered under certain conditions according to Art. 1.3.4 Raz BES, including cases of a life-threatening condition, uncertainty about the urgency of a treatment, a surgery with irreversible consequences, or in case of reasonable doubt about the treatment method.

higher incomes. The structural budget for the health system of the BES islands is also linked to the Healthcare Expenditure Ceiling (*Uitgavenplafond Zorg*, UPZ).[5]

Unlike in the European Netherlands, residents of the BES islands are not subject to paying community rated (flat) premiums for health insurance. There is also an income-related employer contribution (11.9% in 2024, but it will be lowered to 10.3% in 2025), which is not health-specific but also for broader financial use in public administration (RCN, 2024).

The taxes on income that residents of the BES islands pay to the tax office is relatively low in comparison to the European Netherlands and was further lowered as part of a poverty reduction package. There is no relation between the amount of income tax collected from residents and employers on the BES islands and the budget for the BES health system that ZJCN receives via VWS, nor are the amount of central funds allocated for health spending determined by the level of GDP generated by the BES islands.

Table 3.5 Income tax and health insurance contributions payable per year in US$, 2024

Taxable income US$	10 000	20 000	30 000	50 000	56 324	60 000	100 000
Tax-free allowance	-10 000	-20 000	-20 242	-20 242	-20 242	-20 242	-20 242
Taxable sum	0	0	9 758	29 758	36 082	39 758	79 758
Contribution base	0	0	9 758	29 758	36 082	36 082	36 082
Health insurance contribution US$	**0**	**0**	**48**	**148**	**180**	**180**	**180**

Note: This table does not consider the elderly supplement. If there is entitlement to the elderly supplement, the maximum contribution payable - by applying the maximum contribution base of US$ 36 082 - remains US$ 180 on an annual basis. However, the maximum contribution is then due at an income of (US$ 56 324 + 1 577 =) US$ 57 901 and above.

Source: VWS (2024a).

3.3.3 Pooling and allocation of funds

After receiving annual transfers from the Ministry of Finance, VWS pools the resources and allocates these to ZJCN, which acts as the only purchaser on the BES islands. Therefore, no risk allocation mechanism for health financing is needed on the BES islands. ZJCN budgets funding to pay for services according to prospective payments (*voorschotbasis*), which are via contracts with a set list of providers on the BES islands or via fee-for-service (FFS) claims (*declaratiebasis*), primarily for off-island care.

[5] For each year, a ceiling is agreed for the total expenditure that may not be exceeded. The level of the Expenditure Ceiling is then adjusted annually in line with wage and price developments.

3.3.4 Purchasing and purchaser-provider relations

ZJCN, as the purchaser, and the limited number of providers on the BES islands regularly negotiate contracts on their budgets. As these sides more or less represent two separate monopolies (i.e. there is no competition to turn to if negotiations fail), there is a great deal of communication and coordination between the two sides. Growth in overall budgets has resulted from both providers asking for more and unilateral decisions by ZJCN to increase volumes and totals in contracts, or to make new types of care available (as with hospice care in 2018).

3.4 Out-of-pocket payments

Data on out-of-pocket payments (i.e. expenditures that are not fully covered by any insurance) are not officially tracked on the BES islands, although there are anecdotal reports of out-of-pocket payments being made for certain services (i.e. dental care, physiotherapy) beyond what is covered in the benefits basket. As dental clinics are privately run, it is not currently possible to estimate how much of dental expenditure is due to OOP payments. (Health expenditure data shows that ZJCN spent US$ 1.4 million on covered dental care services in 2023). Additionally, the cases in which residents whose Article 10.4 applications are rejected and decide on their own initiative and cost to travel and pay for the care from their own funds are not captured at all.

3.4.1 Cost sharing (user charges)

Residents on the BES islands pay no deductibles and there are only a few copayments for healthcare services; for example, for some medical aids after a threshold has been met (i.e. US$ 170 for glasses and US$50 for orthopedic shoes), although totals of these per year are not kept in ZJCN's accounting records. There may also be costs for physiotherapy and exercise therapy, which are reimbursed only after the 21st treatment and for patients with conditions listed in Article 1.4.2 of Raz BES. Cost sharing could also occur when staying in a nursing home, as the insured person might need to allocate a part of their pension to the facility.

3.4.2 Direct payments

Residents of the BES islands would only face direct payments in the case of seeking care from a provider or service not contracted by ZJCN (primarily off-island) or that is not in the benefits package. On the BES islands, tourists or non-registered people pay for their own care. Further data on this are not collected.

3.4.3 Informal payments

There is no reported evidence on informal payments.

3.5 Voluntary health insurance

Unlike in the European Netherlands, there are no options to purchase voluntary, supplemental coverage for services not provided in the basic benefit package.

3.6 Other financing

Aside from the expenditure that comes from tourists visiting the BES islands or people not registered as residents, which may provide some extra income to providers (for which data are not collected),

there are no parallel health systems, external sources of funds, or other sources of financing in the health system.

3.7 Payment mechanisms

Providers of health services are paid by ZJCN in different ways. First, there are the organizations that receive transfers for their annual budgets; this applies to the medical centers and the hospital, the long-term care facilities, mental healthcare facilities and disability care facilities on the BES islands. Dentists are paid by fee-for-service (FFS) while physiotherapists are paid through FFS (Bonaire) or annual budgets (St Eustatius and Saba). Pharmacies are funded either via budgets and FFS (Bonaire), or just FFS (St Eustatius and Saba).

On Bonaire, GPs are paid with age-adjusted capitation (similar to the European Netherlands) and fee-for-service for procedures such as minor surgeries, whereas on St Eustatius and Saba they are paid by salary. This difference is due to the small size of these two islands: the GPs are employed by medical centers directly (which are paid through budgets) and do not work in, own or manage their own practices. Table 3.6 provides an overview of the different payment mechanisms in the health system.

Table 3.6 Provider payment mechanisms

	Bonaire	St Eustatius	Saba
GPs	Age-adjusted capitation (similar to the European Netherlands), FFS for minor surgeries	Salary (employed by the medical center)	Salary (employed by the medical center)
Outpatient specialists	FFS	FFS	FFS
Health facilities	Budget transfers	Budget transfers	Budget transfers
Dentists	FFS	FFS	FFS (for visiting dentists)
Pharmacies	Combination of budget transfer and FFS	FFS	FFS
Public health services	Budget transfers (further subsidized via free allowances and special allowances)	Budget transfers (further subsidized via free allowances and special allowances)	Budget transfers (further subsidized via free allowances and special allowances)
Off-island care		FFS	

Note: GPs - general practitioners; FFS - fee-for-service.

Source: authors' own elaboration.

4. Physical and human resources

- Fundashon Mariadal is the main healthcare provider on Bonaire, managing the hospital, which is the BES islands' only hospital and includes various wards, surgical theatres, and a hemodialysis department. Bonaire also has six GP-led clinics and one after-hours clinic.
- St Eustatius Health Care Foundation (SEHCF) is the only healthcare provider on St Eustatius, which offers mostly primary care, with facilities including the Queen Beatrix Medical Center and a 'hospitainer' for acute care.
- Saba Cares is the sole healthcare provider on Saba, offering primary care and some secondary care and inpatient care.
- Capital investment is managed by VWS through ZJCN according to a planned process, primarily via lump sum agreements in the form of annual budgets. This differs from the European Netherlands where providers receive funds to manage their own capital investments as part of the tariff for care they have provided. Saba Cares has undergone recent renovations, with plans for a new long-term care facility by 2026, while SEHCF on St Eustatius is discussing a new integrated healthcare center. Fundashon Mariadal has seen vast increases in capacity and renovations since 2010, comparable to a small general hospital in the European Netherlands.
- Basic medical supplies and major medical equipment like X-ray and ultrasound machines are available on St Eustatius and Saba, while Fundashon Mariadal on Bonaire has advanced diagnostic services, with plans to add more equipment, like MRI scanners. Strategic discussions are ongoing about centralizing certain specialized medical equipment (and thus treatments) regionally, as part of the Dutch Caribbean Hospital Alliance.
- IT systems for medical functions are established but integration across providers and patient communication systems needs improvement. There are challenges in cross-border data exchange and absence of citizen service numbers like in the European Netherlands, which will be introduced in the coming years.
- With fewer qualified available health workers and limited local training options, health workers are primarily recruited from abroad. All providers face challenges in attracting qualified personnel, particularly St Eustatius and Saba. Bonaire also faces challenges in supplying a sufficient health workforce to match strong population growth.

4.1 Physical resources

4.1.1 Infrastructure, capital stock and investments

Infrastructure

Fundashon Mariadal is the foremost provider of healthcare on Bonaire. It is responsible for the management and operation of the hospital in Kralendijk, Bonaire, and is the only hospital in the Caribbean Netherlands. While the hospital is directly responsible for access to secondary care for the approximately 24 000 inhabitants of Bonaire, it also serves an important function as a regional healthcare provider. It is centrally located and 3.6km (10 minutes driving distance) from the Bonaire Flamingo International Airport. Rincon, the second town of Bonaire, is located within 20 minutes (16 km) driving distance. Besides the provision of secondary, long-term, and home care, Fundashon Mariadal also operates two of the remaining pharmacies on Bonaire (*botikas* in Papiamentu; the remaining independent pharmacy ceased operating on 1 May 2024, see Section 5.6). In absence of a complete intensive care unit Fundashon Mariadal also maintains a contract with an air ambulance service which allows for medical transfers off-island (i.e. in case of complex emergencies, see Section

5.5). Apart from Fundashon Mariadal, there are also six general practitioner (GP) clinics and one after-hours clinic for emergency care (*Huisartsenpost*) which work in primary care groups that are organized per neighborhood in the towns on Bonaire.

SEHCF is the sole healthcare provider on St Eustatius and has three locations: the Queen Beatrix Medical Center (QBMC), the 'hospitainer' (an emergency facility for acute care during the COVID-19 pandemic); and homecare delivered in people's homes. QBMC is located 1.3km (3 minutes by ambulance or car from the FD Roosevelt airport), which is the exit point for all patients who need to be transferred to SMMC on St Maarten or other hospitals. There is a medical helicopter stationed at the airport, which also services Saba. Primary care is provided via the clinic and inpatient care by the admission ward, which contains seven beds. The Golden Rock Pharmacy serves all Statians and is located nearby. LTC is provided via the nursing home (a separate foundation) and home health. Secondary care is facilitated at the QBMC or hospitainer via medical specialists visiting from SMMC or provided in hospitals on other islands.

Saba Cares is the central healthcare complex located in Saba's capital, The Bottom. It is the sole healthcare provider on Saba. Saba Cares is approximately 2.1km from the village of St Johns, 3.8km from Windwardside and 8km from Juancho E Yrausquin Airport in the village of Zion's Hill. The latter is the exit point for all patients who are referred to SMMC or other hospitals. Primary care is provided via the clinic and inpatient care by the admission ward, which contains ten beds. The island's sole pharmacy, Saba Wellness Pharmacy, is located very close to Saba Cares. LTC is provided via the nursing home and home health. Secondary care is provided at the complex via mostly medical specialists visiting from SMMC or provided in hospitals on other islands of the Kingdom.

Box 4.1 provides a brief summary of health infrastructure distribution on the BES islands. There are also organizations that provide rehabilitative care, physical therapy services, midwifery and maternity care, dental care, and mental healthcare on all three islands. Additionally, the medical centers on St Eustatius and Saba and Fundashon Mariadal's hospital, along with the hospitals on the CAS islands, are actively participating in the establishment of the Dutch Caribbean Hospital Alliance (see Box 5.2).

Box 4.1 Distribution of health infrastructure on the BES Islands

Saba and St Eustatius each have:

- One healthcare provider (called a medical center) of a good standard which is accessible for the entire community.
- Provision of pharmaceutical, primary care, home care, inpatient care and LTC; access to secondary specialist care on other islands is facilitated.
- Emergency medical transfers via a medical helicopter service.

Bonaire has:

- One healthcare foundation (Fundashon Mariadal) for secondary care. LTC, home care, pharmaceutical services, and emergency medical transfers via an air ambulance service.
- A centrally-located general hospital that provides specialist care.
- Facilities for primary care distributed by neighborhood.

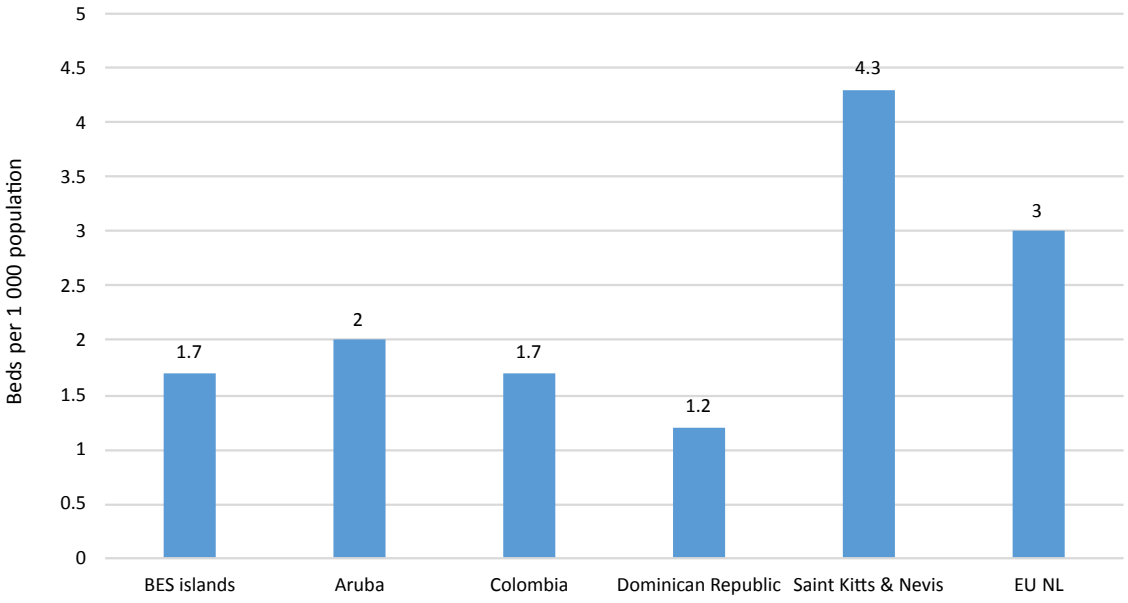
Current capital stock

Over the years, Fundashon Mariadal's hospital on Bonaire has seen numerous changes in terms of its nature, capacity, and the modernization of its buildings. While originally initiated as a missionary service back in in the 1920s, the hospital currently functions as a general hospital comparable to other smaller general hospitals in the European Netherlands, albeit with unique challenges in terms of demand, capacity, and the availability and training of human resources for health and support staff. Fundashon Mariadal's hospital currently has a bed capacity of 47, with a distribution of beds over four entities:

- 30 general ward beds (although at the time of writing between 20-24 beds are in use due to lack of personnel)
- 5 emergency room beds
- 5 (elective) day-surgery beds
- 7 special care department beds (2 recovery, 5 medium- and high care)

The medium- and high care beds are also used for the stabilization of patients in need of intensive care who will be transferred to another regional hospital using the air ambulance service. There are also four surgical theatres available (2 for outpatient surgeries, 2 for inpatient surgeries) and there is a hemodialysis department with 13 stations. A regional comparison of bed-to-population ratios is shown in Fig. 4.1.

Fig. 4.1 Hospital beds in acute care hospitals per 1 000 population on the BES islands, the European Netherlands and selected PAHO countries, 2019 or latest year



Notes: 1. As Fundashon Mariadal's hospital on Bonaire is the only acute care hospital on the BES islands and some (though few, see Table 3.4) Statians and Sabans also receive treatment there, the ratio has been calculated using the BES islands' full population; 2. Regional comparators were chosen on available data and their history of treating BES patients.

Sources: Fundashon Mariadal (2023a), OECD (2024), PAHO (2023).

On St Eustatius, the clinic at the QBMC also dates back to the 1980s and includes a patient waiting hallway, a nurses' station, three medical consultation rooms and a dental consultation room, a midwife office and a treatment room. Within the seven-bed admission ward and 24-hour emergency department are also an isolation room, a nurses' station, an emergency treatment room and a radiography room. The QBMC also includes a laboratory, a delivery room and an administrative department. There is also a room for a physiotherapist. At the rear of the building is the emergency entrance, the morgue and maintenance area. Discussions began in 2023 to work towards a new healthcare center in which different types of (health) care will be integrated.

Saba Cares' building was built in the early 1980s and the clinic, which was renovated between 2016 and 2021, includes a patient waiting area, a nurses' station, four medical consultation rooms and a dental consultation room. Connected to the clinic is the ten-bed admission ward and 24-hour emergency department with a separate entrance, also recently renovated. This includes a positive pressure isolation room, a nurse's station, and emergency treatment and radiography rooms. It also includes a morgue and a maintenance area.

Within the same complex is the 22-bed nursing home providing LTC, which has not been refurbished for more than 50 years and is no longer fit for purpose. Plans are underway for a new LTC facility to be opened in 2026, to be located next to Saba Cares; the land has already been acquired and will include 24 single occupancy rooms, a kitchen, laundry, restaurant and an activity center. Additionally, the new building will include a complex of 17 apartments intended for Sabans who can live independently with additional assistance. Five apartments are intended for assisted living and three apartments for victims of domestic violence. Saba Cares also has a laboratory (last renovated in 2021) and an administrative department, home health and physical therapy units, newly refurbished in 2017.

For the medical centers and the hospital, the respective boards of directors (*Raad van Bestuur*) are composed of one member. In correspondence with the governance code for healthcare organizations *Governancecode Zorg*), boards of supervisors (*Raad van Toezicht*) oversee the activities of the boards of directors. In addition, management teams under supervision of the boards of directors are responsible for business operations, and medical and financial affairs.

Regulation of Capital Investment

The Healthcare Institutions Act BES (*Wet zorginstellingen BES*) became effective on 10 October 2010, and since this reform, the responsibility for financing healthcare, including capital investment of on-island providers, lies with VWS through ZJCN. Prior to 2010, healthcare was provided by departments of the respective public entities while independent foundations to govern the facilities were established after 10/10/10. This is notably different from how capital investment is managed in the European Netherlands, which since January 2009, has been the responsibility of the providers themselves; there, the costs are integrated into the care tariffs as providers need to generate the financial resources and carry the full financial risks themselves (Kroneman, et al., 2016).

Investment Funding

Rather than generating investment funds via tariffs for care as in the European Netherlands, in the Caribbean Netherlands, ZJCN is the most important funder of providers (including infrastructure and general maintenance costs) on the BES islands. ZJCN encourages providers to first obtain bank loans and then reimburses providers for the annual loan repayments via annual budgeting. In generating investment funding proposals, providers on the BES islands work together with ZJCN to formulate the formal requests which then go through the proper administrative and political channels. For example, for the new LTC facility on Saba, Saba Cares received direct grants from ZJCN as well as

signed a loan with a bank (with prior agreement) to acquire the real estate and pay for construction costs.

Extra earmarks can also be allotted based on temporary need or on an ad hoc basis, although this needs to be approved by Dutch Parliament in The Hague. Next to this, providers receive some payments from private patients (mostly tourists) and from clients of the nursing homes. Smaller, temporary subsidies for specific projects are provided by the public entities (and also by ZonMw for specific health-related projects and the Samenwerkend Fondsen for projects on Saba).

4.1.2 Medical Equipment

Equipment Infrastructure

It is important to note here that an emphasis on equipment specifically available on the BES islands is potentially misleading, as the absence of certain equipment may also reflect a rational and strategic choice to assign the services enabled by this equipment to a neighboring island or country as part of regionalization efforts. This is particularly the ambition of the DCHA: to centralize the availability of specialized equipment (such as a linear accelerator used for radiation therapy).

Basic and essential medical equipment of high quality are sufficiently available on Bonaire. Diagnostic services available at the hospital include laboratory services, conventional radiology, a computerized tomography (CT) scanner, ultrasound facilities, and a mammography unit. It is anticipated that a magnetic resonance imaging (MRI) scanner will be added in the near future.

Basic medical supplies are readily available on St Eustatius and Saba. Comprehensive stock management is in place due to the isolated small island settings and long waiting times for supply deliveries; relationships are well established with suppliers. In crisis times, for example during the COVID-19 pandemic, supplies were regularly shared between islands, in particular testing equipment between St Eustatius, Saba and St Maarten (see Box 4.2). Major medical equipment available on St Eustatius and Saba includes X-ray and ultrasound machines, and sterilization equipment, among others (for example. Saba has various laboratory technologies such as the GeneXpert, Picollo XPress and DXH520). Laboratory equipment is validated by clinical chemists and maintained by medical technicians, including staff from St Maarten Laboratory Services (who visit both islands monthly), and other local technical experts.

Box 4.2 Health infrastructure and the COVID-19 pandemic

In response to the outbreak of the COVID-19 pandemic and throughout the vaccination rollout, there was a strong collaboration between The Hague and the medical facilities on the BES Islands to boost testing capacities, while infrastructure such as the hospitainer on St Eustatius enabled the health workforce to respond to more medical challenges on island (Statia Government, 2020b). Intensive care equipment and staff were also deployed to the hospitals on Bonaire, Curaçao, Aruba and St Maarten. The vaccination program eventually included equipment for both the BES and CAS islands.

4.1.3 Information, technology and eHealth

Information technology (IT) is well-established for certain medical functions, though integration of information systems across providers and communication systems with patients are still at a basic level and the continuing fragmentation across providers and levels of care present an ongoing challenge. Electronic patient medical files for primary care on the BES islands are facilitated via the

software program Promedico (including Mental Health Caribbean). GPs use International Classification of Primary Care (ICPC) codes and recently, reports have been generated on population health status by extracting data from Promedico using ICPC codes (Saba Government, 2023). Together with Aruba, the BES islands participate in syndromic surveillance via Nivel.

Patient referrals from primary to secondary care have typically been arranged via telephone or (encrypted) e-mail. If necessary and applicable, radiology files and scans can be transferred on a DVD. Lab requests and results, however, are not yet integrated into Promedico and thus have to be accessed separately.

Fundashon Mariadal uses SQlapius for electronic patients records in curative secondary care on Bonaire – there is no electronic system in place for LTC. IT developments are currently focused on care delivery, and Fundashon Mariadal appointed a chief information officer and medical chief information officer in 2022 to further facilitate the development and implementation of a fit-for-purpose hospital information system. At the level of facility and support services, the hospital uses specific software packages, for instance to monitor the maintenance and safety of its equipment and facilities, for registering key performance indicators, and for safety and risk management. Fundashon Mariadal also recently implemented a virtual environment (remote desktop) and an eHealth facility for exchanging medical records, for example with GPs on Bonaire.

Providers such as Fundashon Mariadal, Saba Cares, SEHCF and Mental Health Caribbean (MHC) have their own websites containing information on services available, their missions and procedures for patient feedback and complaints. MHC also offers treatments that can be supported with eHealth, such as online modules. Use of additional digital tools, such as mobile health apps, are complicated by the fact that residents of the BES islands do not yet have citizen service numbers (*Burgerservicenummers,* BSNs) or digital identification possibilities such as DigiD as in the European Netherlands, which could enable the secure storing and transmission of individual health data. BSNs for BES island residents are expected in mid-2025. There are also challenges with cross-border exchange, particularly regarding data privacy and security. In many cases there are no systems in place locally to use or import medical or health data. A key issue is that medical details from a referral (e.g. in Colombia) are not always adequately shared with providers based on the BES islands, be it digitally or simply as a letter clearly detailing procedures and medicines administered.

Further plans include digitalizing patient records and realizing data exchange between providers in 2024 and beyond — the ambition is to implement a data platform in which providers are able to view the right information at the right time. These, plus the implementation of BSNs, are necessary steps to make an electronic client portal possible and utilize more digital solutions that further improve quality of care while also accounting for cybersecurity and the safe exchange of patient data (see Section 6.2).

ZJCN's internal satisfaction survey from 2022 show that residents of the BES islands would prefer to use apps, a website or even Facebook to contact ZJCN about information and services rather than having to call on the phone or visit an office, though in the same survey only a majority of Statians respondents thought eConsultations would add value for them, while only 47.7% of responding Bonaireans and 35.1% of responding Sabans thought the same. Between 40% and 50% of each island's respondents said that they would like to have eConsultations for follow-ups, with lower shares expressing interest in digital intake evaluations or remote monitoring (see Table 4.1).

Table 4.1 Preferred functions of eConsultations for survey respondents of the individual BES islands, 2022

	Follow-up appointments	Intake evaluations	Remote monitoring
Bonaire	40.8%	29.6%	29.6%
St Eustatius	40.0%	31.1%	28.9%
Saba	48.0%	24.0%	28.0%

Source: VWS (2024c).

4.2 Human Resources

4.2.1 Planning and registration of human resources

While providers are responsible for making sure that they have enough personnel and that they are properly trained, ZJCN works with providers to recruit and retain sufficient qualified health workers. Medical doctors, dentists, pharmacists, and midwives who want to work in the Caribbean Netherlands must apply for a so-called BES-dispensation (*BES-ontheffing*), which is provided by VWS; this must be renewed every 4 years. Nurses require a Registered Nurse (RN) certificate; Licensed Practical Nurses (LPNs) require an LPN certificate and Nursing Assistants (CNAs) a CNA certificate.

In times of crises, such as during the COVID-19 pandemic, the provision of health workers might be facilitated by ZJCN or attracted via specialized temporary employment agencies. All GPs on Bonaire are supported by Primary Care Caribbean (PCC) – which is an independent primary care umbrella organization that provides "substantive, organizational, and facilitative support" (overheid.nl, 2020b). For secondary care on Bonaire, Fundashon Mariadal is the only significant employer. However, general population growth has not translated into increases in the health workforce: the general population on Bonaire grew by 12.3% between 2019 and 2022; the number of outpatient visits per 1 000 residents and the number of hospital admissions per 1 000 residents grew by 1.9% and 3.5%, respectively, while full-time equivalents (FTE) staff declined by 1.5% over the same period. A steep increase in absenteeism among staff (3% pre-COVID, 12% during COVID, and currently 8%) has also been observed.

In 2015, two reports were published by the Advisory Committee on Medical Workforce Planning (*Stichting Capaciteitsorgaan voor (vervolg)opleidingen van professionals in de zorg*), a body founded in 1999 to provide forecasts and recommendations on workforce planning in the health sector and funded by VWS. The first report was at the request of VWS and provided an inventory of current numbers and need for pharmacists, GPs, dentists and midwives. Among its findings, the report discovered lower densities of GPs and dentists on the BES islands than on the European Dutch Wadden (Frisian) islands in the North Sea. The report highlighted the need for better data on the actual full-time equivalent (FTE) personnel working on the islands (Capaciteitsorgaan, 2015a). The second report was requested by VWS, as well as other stakeholders such as Fundashon Mariadal and (then) ZVK and the Amsterdam UMC (then AMC and VUmc) and found that the health workforce and beds would need to grow considering demographic changes (numbers which have been by far surpassed since then) (Capaciteitsorgaan, 2015b). One of the plans of the DCHA is to facilitate a new capacity analysis, and new data to inform health workforce planning are expected by mid-2024.

4.2.2 Trends in the health workforce

Publicly available data on regular trends in the healthcare workforce on the BES islands are not readily updated (i.e. the reports from Advisory Committee on Medical Workforce Planning are from 2015 and the DCHA plans are in development), given that the islands do not run full health systems with all functions and residents often need to go abroad for care.

Data specifically collected for this report shows that as of mid-2023, the following number of healthcare personnel are employed on each of the BES islands:

Bonaire

- There are 15 GPs (approx. 14 FTEs) on Bonaire, of which four GPs are also clinic owners. In addition, there are two to three consulting GPs (*waarnemers*) who generally are contracted by the clinics themselves.
- Fundashon Mariadal currently employs 607 FTEs, of which 163 are support staff and support staff providing overhead services (Fundashon Mariadal, 2023b).
- A substantial share of specialists in secondary care rotates through the *jumelage* agreement between Fundashon Mariadal and the Amsterdam University Medical Center (Amsterdam UMC) (see Box 4.3 and Section 5.4.1). There are several medical specialists that partake in this agreement, including for: internal medicine (2 FTEs), surgery (2 FTEs), anesthesiology (3.7 FTEs), nephrology (2 FTEs), pediatrics (2 FTEs), obstetrics and gynecology (2 FTEs), psychiatry (2 FTEs), cardiology (2 FTEs), radiology (FTEs), rheumatology (0.4 FTEs), urology (0.8 FTEs), neurology (2 FTEs), ophthalmology (1.6 FTEs), elderly care (1.6 FTEs), oncology (0.8 FTEs), gastro-enterology (0.5 FTEs), pulmonology (0.8 FTEs), dermatology (0.5 FTEs), and clinical genetics (0.2 FTEs).
- In addition, there are 3.5 FTEs of medical personnel directly (part-time) employed by Fundashon Mariadal: these include a pulmonologist, anesthesiologist, pharmacist, medical microbiologist, clinical chemist, rehabilitation physician, and a general hospital physician.

St Eustatius

- SEHCF directly employs 4 GPs, 13 Registered Nurses (RNs; including 2 Coordinating nurses), 5 Licensed Practical Nurses (LPNs), and 1 Physical Therapist in addition to support staff in managerial, administrative, culinary, maintenance, housekeeping and ambulance driving roles (SEHCF, 2023).
- Apart from SEHCF staff, there are a pharmacist, a dentist (dental and orthodontic care is provided by a private clinic located within the QBMC, see Section 5.12), 2 Public Health Nurses and a Mental Health Nurse.
- Medical specialist care is provided by professionals visiting from other islands, primarily St Maarten.
- There is also the auxiliary home that works with an independent staff.

Saba

- Saba Cares directly employs 3 GPs (2.4 FTEs), 1 Physician's Assistant, 10 Registered Nurses (RNs) (including 2 Coordinating nurses), 7 LPNs, 16 Nursing Assistants (CNAs) and 1 Physical Therapist (Saba Cares, 2023).
- Additionally, Saba Cares employs support staff: 2 Lifestyle Coaches, 2 Managerial staff, 6 Administrative staff, 4 Culinary staff, 2 Maintenance Workers and Ambulance Drivers, 1 Senior Maintenance Worker, 2 Medical Technologists, 1 Hospitality Coordinator and 10 Housekeeping staff.

- The community on Saba also has access to a pharmacist, 2 Public Health Nurses (employed by Public Entity Saba) and 1 Mental Health Nurse.
- Medical specialist care, dental and orthodontic care are provided by persons who visit from other islands, primarily St Maarten.

Box 4.3 Are health workers appropriately distributed?

- GPs, nurses, pharmacists and physical therapists are readily accessible for the communities on St Eustatius and Saba.
    - Medical specialists, multi-disciplinary care such as dietetics, dentist and orthodontist professionals are also available, but access is more limited as they are not residing on island.
- On Bonaire, the *jumelage* with Amsterdam UMC guarantees an appropriate distribution and availability of health workers, although shortages in available health workers, not merely during crises, are an area of increased concern.
    - Not all medical specialties and secondary care interventions are available on Bonaire, which necessitates intensified regional collaboration.

4.2.3 Professional mobility of health workers

Health workers on Bonaire are generally recruited from abroad, currently including from Aruba, Belgium, the UK, Curaçao, Germany, and Poland, among others. The primary reason for this being that there are few local training options (see Section 4.2.4).

For St Eustatius and Saba, health workers are also recruited from abroad and there can be significant turnover in their ranks given the small island contexts. In the past, the teams on St Eustatius and Saba have been predominantly from the European Netherlands, rotating between their home facilities and the islands, though two of the GPs currently on St Eustatius are from Suriname and only one GP in Saba is from the European Netherlands. There are constant nursing shortages at SEHCF and Saba Cares; the team at Saba Cares is comprised mostly of non-Saban staff with nursing professionals from other Dutch Caribbean islands, Suriname, other Caribbean islands (such as St Vincent and Grenadines) and also the Philippines. The nursing team at SEHCF is mostly local, with some nurses from St Maarten and also one from Russia.

Health workers who, both in primary and secondary care, have been trained in the European Netherlands hold a *BIG* (*Beroepen in de Individuele Gezondheidszorg*) registration in accordance with the Healthcare Professionals Act (*Wet op de beroepen in de individuele gezondheidszorg,* Wet BIG). Though not required for nurses, this presents a conundrum in terms of recruiting and holding on to other staff as some health workers (i.e. medical specialists) must abide to specific stipulations of the Act to maintain their BIG registration – for instance a minimum number of procedures per year, or regular training (bigregister.nl, n.d.; Linkels, 2024). This can be a reason for health workers to (temporarily) leave the BES islands and practice their profession elsewhere. Furthermore, recruited staff may not be BIG-registered (due to being educated outside of the Netherlands) as they were educated in places with varying systems of mandatory education and re-registration that is in many

cases are not recognized by the Netherlands. There are agreements that healthcare professionals with foreign credentials must be able to demonstrate that they meet quality requirements in terms of education and work experience (such as an endorsement letter from a former employer). Organizations like Saba Cares also work to offer continuing education on their own as a major (and sometimes only) incentive to recruit from abroad.

4.2.4 Training of health personnel

There are some options for local training of health personnel on Bonaire. Training for health workers is offered by Fundashon Mariadal Academy for vocationally trained nurses (including LPNs) (*verpleegkundige niveau 4 en ziekenverzorgende individuele gezondheidszorg niveau 3*). Additional options on Bonaire include the Bonaire Comprehensive School (*Scholengemeenschap Bonaire*) in the fields of care and welfare. They will be offering secondary vocational education (*middelbaar beroepsonderwijs*, MBO) nursing courses as well as courses for physician's and pharmaceutical assistants in September 2024 (MBO Bonaire, 2024).

Usually, all other health workers are trained abroad – including in the European Netherlands. Since early 2020, however, there is an option for GPs destined to work on Bonaire to complete a part of their training locally. In addition, specialists in internal medicine, anesthesiology, elderly care, neurology, and cardiology who work as a resident in training (*artsen in opleiding tot specialist*) in the European Netherlands can follow a specific part of their program at Fundashon Mariadal. As there are no nursing schools on St Eustatius or Saba, Statians and Sabans wishing to pursue this career often go to St Maarten or elsewhere to complete their studies. Very recently Fundashon Mariadal and Saba Cares have started a cooperation, where Fundashon Mariadal Academy will provide the LPN education for nurses of Saba Cares. During COVID-19, medical follow-up education was made available to health workers (see Box 4.4).

Given the small island context and the limited exposure to major casualties on St Eustatius and Saba, all nursing and medical staff undergo regular simulation training and exercises to ensure high standards and quality of care, including medivac training. For example, advanced life support (ALS) training is provided biennially on Saba, also for training in casting, wound care, pain management and Promedico. All other departments receive regular training, explaining the large training budget for Saba Cares as reported in their annual plans and quality reports.

Box 4.4 Health workers and COVID-19

During the COVID-19 pandemic and in order to guarantee continuity of care, VWS invested in medical follow-up education for health workers on both the CAS and BES islands. Basic acute care training began in June 2021, in which a total of 172 nurses participated. Following this, various medical follow-up courses were offered throughout 2023, including nursing care for emergency, intensive and critical settings, dialysis care, pulmonary care and also anesthesia. The Entrustable Professional Activity (EPA) system from the European Netherlands is also used, whereby nurses can follow tailor-made training.

4.2.5 Physicians' career path

There are few options in terms of physicians' career paths on Bonaire. It is important to note here that for physicians working within the *jumelage* agreement, administrative responsibility resides with the board of directors of Fundashon Mariadal, whereas the substantive, medical responsibility for their qualifications, continuing education and licensing resides with the department chairs of their respective organizations in the European Netherlands (and they have to abide by Dutch laws), in informal coordination with Fundashon Mariadal's board of directors.

There are no career advancement possibilities for physicians on St Eustatius and Saba. While they do train and study on a regular basis to improve their skills and knowledge, and stay informed about actual developments, there is no obligatory continuous medical education (or enforcement thereof), as is the case in the European Netherlands (unless the health worker has a BIG-recognized certification) and it is up to the providers themselves to offer it and make it mandatory as the BES islands are exempted from this requirement.

4.2.6 Other health workers career path

For level 4 vocational nurses on Bonaire, there is an option to complete a course and become a registered nurse (RN). PCC also offers trainings for nurses and mental healthcare in general practice (see Section 5.3). In addition, Fundashon Mariadal Academy offers several continuing professional education courses, including basic life support, project management, and personal leadership. For health workers primarily employed by Amsterdam UMC, a (short-term) participation in the *jumelage* agreement and secondment to Fundashon Mariadal on Bonaire might also serve as a specific element in their career path.

The possibilities for other health workers for promotion is also limited on St Eustatius and Saba. Saba Cares, however, provides training and other education to their staff so they can broaden their knowledge and skills within their job. Saba Cares is also working on cooperation with education organizations on other islands to provide a hybrid course for Nursing Assistants (CNAs) to become Licensed Practical Nurses (LPNs) and for LPNs to become Registered Nurses (RNs) (Bonaire and Fundashon Mariadal Academy for LPN courses, and with St Maarten and SMMC for RN education, which started in Autumn 2023).

5. Provision of services

- Public health responsibilities on the BES islands are shared between national and municipal bodies, with funding from ZJCN. Key public health initiatives are in line with Dutch guidelines and focus on disease prevention, vaccinations, and promoting healthy lifestyles, including physical activity and substance abuse reduction. Public health agendas on the BES islands are also increasingly tailored to local contexts and focus on factors affecting health, like food accessibility.
- Primary care physicians act as gatekeepers for secondary care referrals. In emergency cases, patients can directly access care or use air ambulances. Patient pathways may include referrals off-island for specialized treatments due to limited local healthcare capabilities. Since November 2022, a direct referral program to SMMC on St Maarten has been running for Statians and Sabans.
- GPs are the primary entry point into the health system, with an increased focus on health promotion and risk reduction. Efficiently coordination of primary and secondary care is under development, as well as adapting healthcare quality standards from the European Netherlands to the Caribbean context.
- Specialized outpatient care and day care are primarily provided by Fundashon Mariadal's hospital on Bonaire and visiting specialists on the other islands. Only on Bonaire is there real capacity to provide inpatient care, while Sabans and Statians are mostly referred off-island.
- Emergency care on St Eustatius and Saba involves multiple parties and requires coordination for off-island transfers by helicopter, posing logistical challenges. On Bonaire, the hospital is crucial for urgent and emergency care, with pathways including self-referral and ground ambulances.
- Pharmaceutical care faces challenges due to limited options and staffing shortages, with reliance on imports from the European Netherlands. Efforts are underway to enable pooled procurement across all six Dutch Caribbean islands to address medicine availability and cost issues.
- Rehabilitation care is offered by different organizations, with a focus on collaboration among providers and with social services. Particularly on Saba and St Eustatius, there are limitations in what care can be offered due to resources and staff availability.
- Various organizations provide long-term care, with growing waiting lists due to ageing populations and increasing demand. Coordination between providers and other health services needs improvement for comprehensive care delivery.
- As in the European Netherlands, the role of informal caregivers is important due to ageing populations and rising demand for formal care services. A pilot program in 2024 aims to enhance support for patients and informal carers, focusing on self-reliance and participation in society.
- Palliative care is less emphasized compared to the European Netherlands, with cultural differences affecting its acceptance and implementation. There are limited facilities for palliative care, and conversations around end-of-life care are still evolving.
- Mental Health Caribbean (MHC) is the key provider for mental health services, with increasing client numbers and budgets over recent years. Mental health and addiction care face challenges, including cultural taboos, language barriers, and the need for greater awareness and acceptance.
- Dental care services are limited on St Eustatius (one dentist) and Saba (visiting dentist from Bonaire), while on Bonaire three dental clinics are available. Dental coverage is limited (especially for adults) and is similar to the European Netherlands, with the major difference

that on the BES islands there are no options available for voluntary insurance to cover additional costs.

5.1. Public health

As was the case in the Netherlands Antilles, the execution of public health tasks since 10/10/10 on the BES islands is undertaken partly by national and partly by municipal bodies and falls under the Public Health Act (*Wet Publieke Gezondheid*), although the BES islands are excluded from a few articles of this law. Public health departments on the BES islands are organized by the public entities themselves, with financing partly coming from VWS via ZJCN; this co-financing of public health leaves the BES islands in a position to fund more staff roles, something that remains a challenge for the CAS islands as they are their own constituent countries. The public health departments of Bonaire, St Eustatius and Saba are involved in prevention program (together with RIVM and ZJCN) for childhood developmental assessments, monitoring tropical and insect-borne diseases, cancer screenings (in some cases, see Section 6.1), most vaccinations (including COVID-19), other prevention programs (as funding and capacity permits) and promoting healthy lifestyles. Key areas of health promotion include physical activity, healthy diet, sexual well-being and minimizing substance abuse. They also closely coordinate with the main healthcare providers on the islands.

The public health department on Bonaire is led by a department head and organized into different units made up of public health and tropical medicine doctors, public health nurses, program managers and support staff to improve public health on Bonaire. On Saba, there is a department head, a part-time public health doctor, two full-time youth healthcare nurses and a health promoter that monitor, protect and promote the health status of Sabans and advise the public entity on creating an environment conducive to a healthy lifestyle. The team on Saba is combined with two sports promotion workers that stimulate developments in sports and movement on the island. The team also collaborates closely with local stakeholders, including schools and Saba Cares, with Saba Cares being responsible for flu vaccinations and the cancer screening programs of which two - cervical and breast cancer - have now been implemented. On St Eustatius, there is a department head (who is also a public health doctor), a part-time public health doctor, a part-time policy worker, two youth healthcare nurses, one regular nurse and one prevention worker. Recently, attention is being paid to obesity concerns and ensuring monitoring of children, from prenatal to 18 years old. All three public health departments also began recently applying the guidelines of the JOGG (*Jongeren op Gezond Gewicht*) program to design community-based activities for children that promote healthy lifestyles and active movement with the goals of preventing and reducing rates of excess weight and obesity (Saba-news.com, 2022a).

While main public health laws and policies are set at the national level and there are many similarities with European Netherlands, there is room to set agendas at the island level and for some local adaptations of national plans and initiatives. Public health agendas on the BES islands are determined by island commissioners, department heads, public health teams and relevant stakeholders based on local context and health status of the population; this is shared and discussed with ZJCN. Monthly meetings are also held between ZJCN's policy advisors and individual islands' public health departments to update the ministry on ongoing progress and challenges. There have been local adaptations of Dutch interventions (such as Cool 2B Fit or Long Live Love), while things like vaccine schedules have been adopted and implemented as they are in the European Netherlands. Digital communication also helps a great deal to close any knowledge and expertise gaps between the European Netherlands and BES islands, although this does not replace potentially sudden needs for on-site expertise in the case of emergencies (i.e. infectious disease control or environmental medical care). All six Dutch Caribbean islands (CAS and BES) and the European

Netherlands form the Dutch IHR (International Health Regulation) group and have regular online meetings and an annual conference on one of the six islands. Additionally, the Dutch Caribbean Public Health Expertise Network (DuCaPHEN), which was established in June 2023 is working to strengthen local expertise across the six islands and is mainly focused on pandemic preparedness (smn-news.com, 2023).

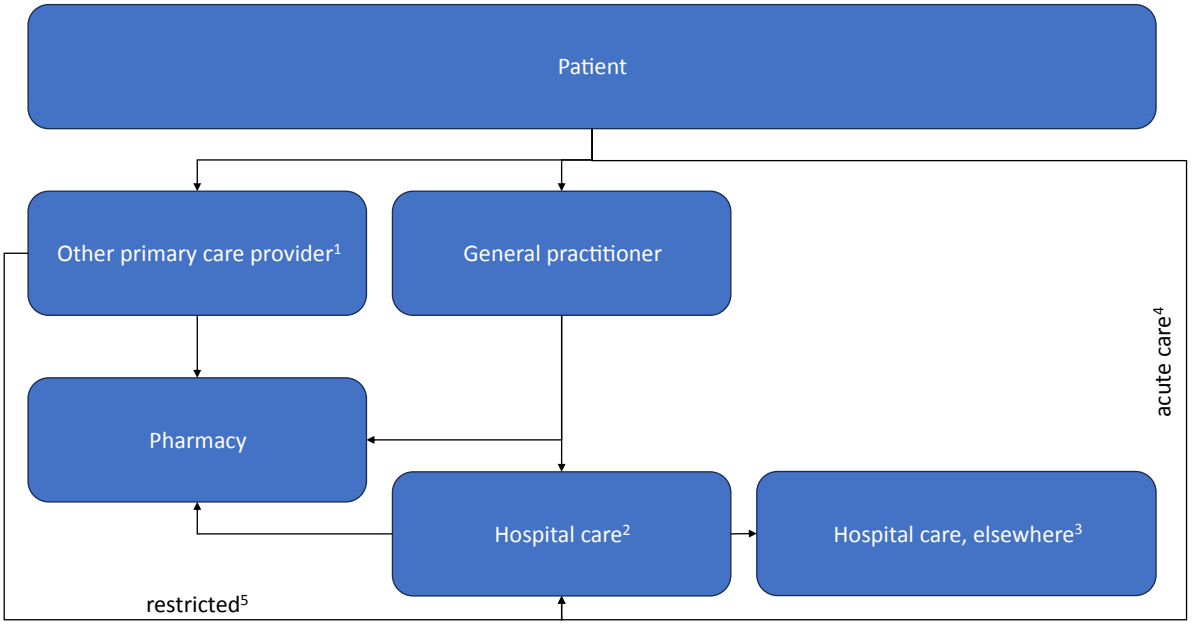
There are also situations where the BES islands' areas of focus diverge from the European Netherlands. For example, there is a desire on St Eustatius and Saba to begin regular screenings for prostate cancer. However, as this is not considered nor provided as part of the regular screening programs in the European Netherlands, it is not provided on the BES islands.

5.2 Patient pathways

Patient pathways, especially for acute care and other inpatient medical specialists, differ from those in the European Netherlands because certain types of care cannot be provided locally on the BES islands and patients must travel off-island for those treatments. All three islands use a triage system, meaning that a trained nurse evaluates the healthcare need of the patient based on developed guidelines; this is similar to the system in the European Netherlands.

There are several patient pathways for people that live, or temporarily stay, on Bonaire and need care (see Fig. 5.1). Generally speaking, GPs have a gatekeeping function, and they are a patient's entry point into the health system. Patients cannot access secondary care without a referral (with the exception of acute care and subsequent intramural referrals); these referrals are not subject to approval from ZJCN's medical advisors. For (tertiary) care that is unavailable on Bonaire, a medical transfer is required and referrals almost always go through Fundashon Mariadal's hospital to ZJCN's medical advisors to approve and to arrange care in the wider region or the European Netherlands. A combined 81.3% of referrals from Bonaire went to Aruba and Curaçao in 2023 (see Table 3.4).

Fig. 5.1 Patient pathway for patients on Bonaire



Notes: 1. Including dentists, midwives, basic mental healthcare providers, home care, and neighborhood nurses; 2. Generally care provided by medical specialists, but also accident and emergency (A&E) and including emergency GP care (*huisartsenpost*); 3. Hospital care that is unavailable on Bonaire and for which a medical transfer is required; 4. Acute care for which patients can be self-referrers via the hospital, or for which they are transferred by (air) ambulance; 5. Secondary care referrals are restricted to dentists, midwives, pediatricians.

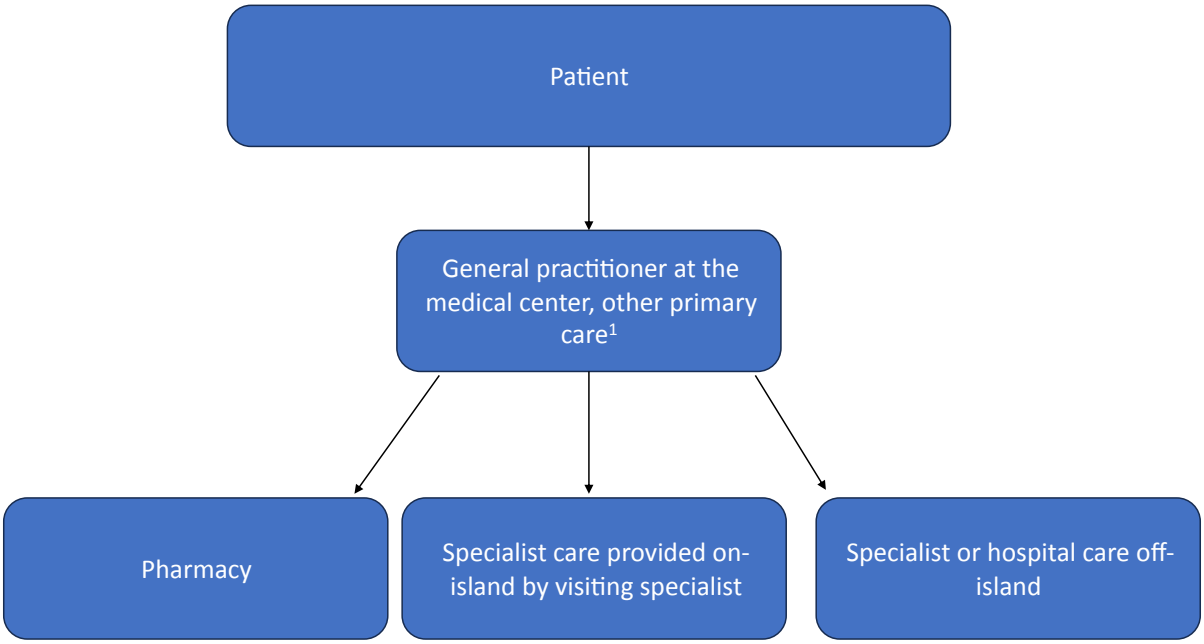
Source: authors' own elaboration.

The typical pathway on St Eustatius and Saba begins with the patient contacting their GP (employed at the medical centers), usually by telephone, to get a consultation (see Fig. 5.2). If necessary, lab assessment and follow-up are scheduled. Depending on the results of tests and/or prescribed treatment, a referral is made to see a specialist. The appointment can either be done with a visiting specialist locally (mostly from St Maarten coming to the medical centers on St Eustatius and Saba), or via a referral for the patient to be airlifted (in case of emergency) or with a regular or chartered flight. Any longer stays at acute care facilities are off-island. The frequency of visiting medical specialists to St Eustatius and Saba is based on patient demand and the availability of specialists; this is evaluated every year together with SMMC. For example, when a medical specialist comes to Saba, they generally see 15 patients and specialists in total provide about 1800 consultations per year on Saba. On both St Eustatius and Saba, the possibilities for specialist medical care are limited, however, as some equipment, staff and facilities the specialist might need are not available on the small islands, necessitating a trip to SMMC. For secondary care, referrals were previously electronically submitted to ZJCN's medical advisors for approval. Since November 2022, this has been streamlined to offer direct referrals to SMMC for Statians and Sabans (see Section 6.1). In 2023, 91.1% of referrals from St Eustatius and 91.4% of referrals from Saba were to St Maarten (see Table 3.4). Tertiary care is referred by specialists and remains subject to approval by the medical advisors, as for residents on Bonaire.

GPs must complete all referral paperwork (digitally) and submit them electronically to ZJCN for approval (now only in the case of tertiary care, on all three islands). ZJCN does not assess a referral and thus start the process of securing an appointment, flight tickets or any other logistical concerns until it is fully submitted. The submission is tested by ZJCN's medical advisors against the benefits

provided under the BES Healthcare Insurance Decree and the BES Healthcare Insurance Claims Regulation. The referring physician can monitor the status of the referral. Data on length of time for approval of referrals as share of total submissions are presented in Table 5.1.

Fig. 5.2 Patient pathway for patients on St Eustatius and Saba



Note: 1. Including dentists, midwives, basic mental healthcare providers, home care.

Source: authors' own elaboration.

Patients can also submit a request for out of network care under Article 10.4 of the BES Healthcare Insurance Decree, and, if approved, receive a percentage reimbursement of the final bill for care that they arranged (see Section 3.3.1). Residents of all three islands can also be referred to Curaçao, Aruba, the European Netherlands, or to Colombia, where ZJCN has contracts with hospitals. Prior to COVID-19, patients were also referred to Guadeloupe and other islands. For off-island referrals, discharge letters and medical communication flow is conducted via an international patient office.

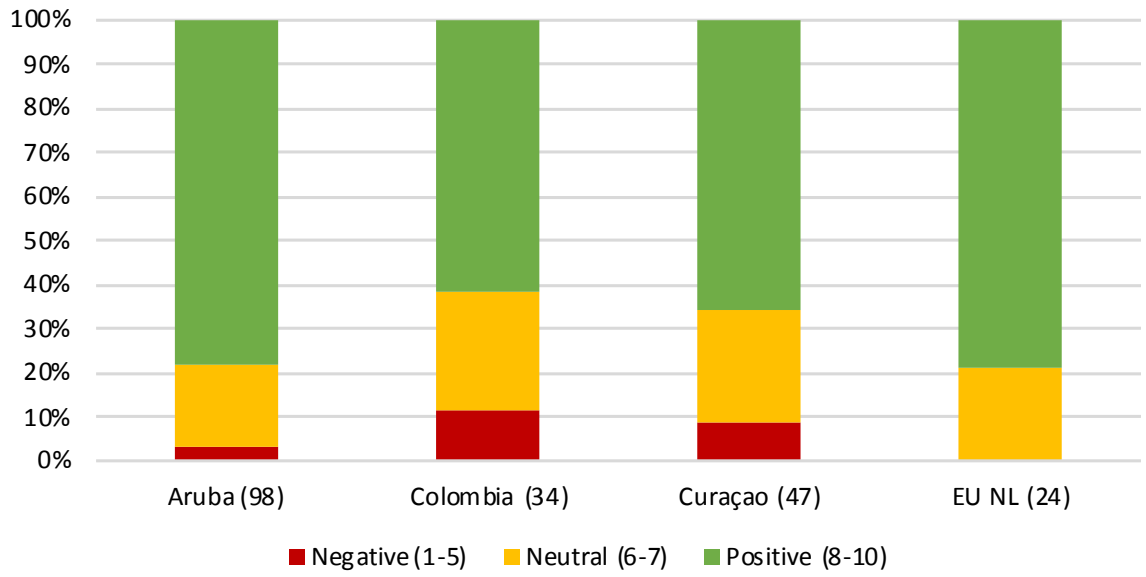
Table 5.1 Share of days from submission to approval for referral related activities, 2020 – August 2023

	0-7 days	8-14 days	15 days or more
Days between referral request and medical advisors' approval	76.7% (7899)	6.3% (651)	16.9% (1744)
Days between referral approval and finalization of appointment/initial logistics planning	52.2% (5063)	11.5% (1114)	36.3% (3515)
Days between referral approval and finalization of logistics and daily allowance	98.1% (9500)	1.0% (96)	0.9% (91)

Source: VWS (2024b).

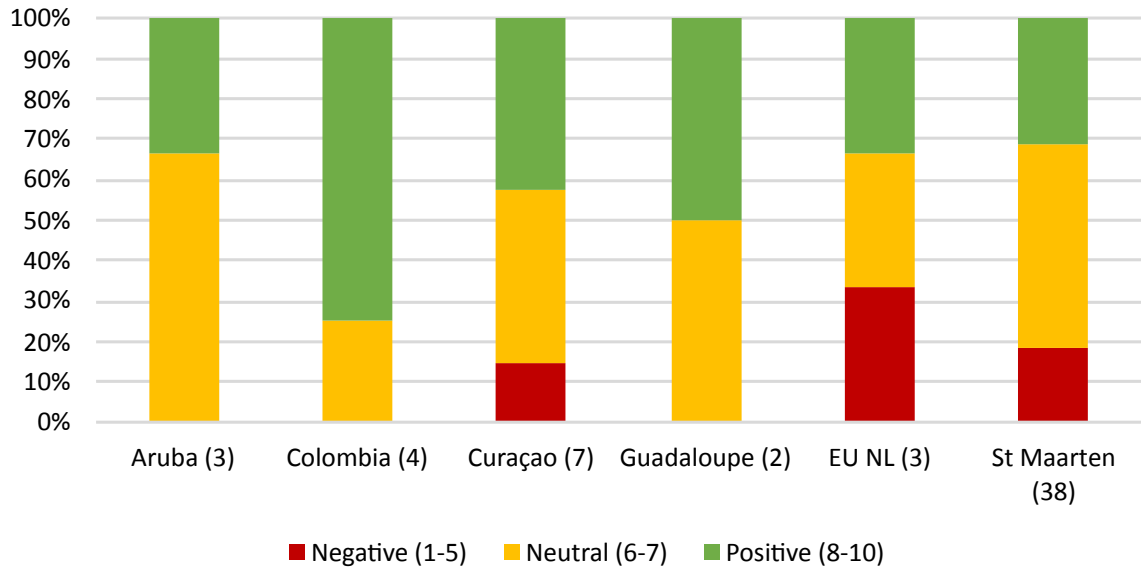
There are expressed preferences for residents to go to certain locations for their treatments, although these reports are anecdotal. There are no reports available that show that the quality of treatment received in one location is any different from another. Regarding satisfaction with the overall referral experience, ZJCN's 2022 internal satisfaction survey shows that a large majority of Bonaireans rate their off-island providers and treatment positively on a Likert Scale. Statians tend to be more neutral and Sabans more positive about SMMC and their experiences with referrals there (see Figs. 5.3-5.5; the number of respondents evaluating each location is in brackets).

Fig. 5.3 Bonaireans' satisfaction with overall referral experience by location, 2022



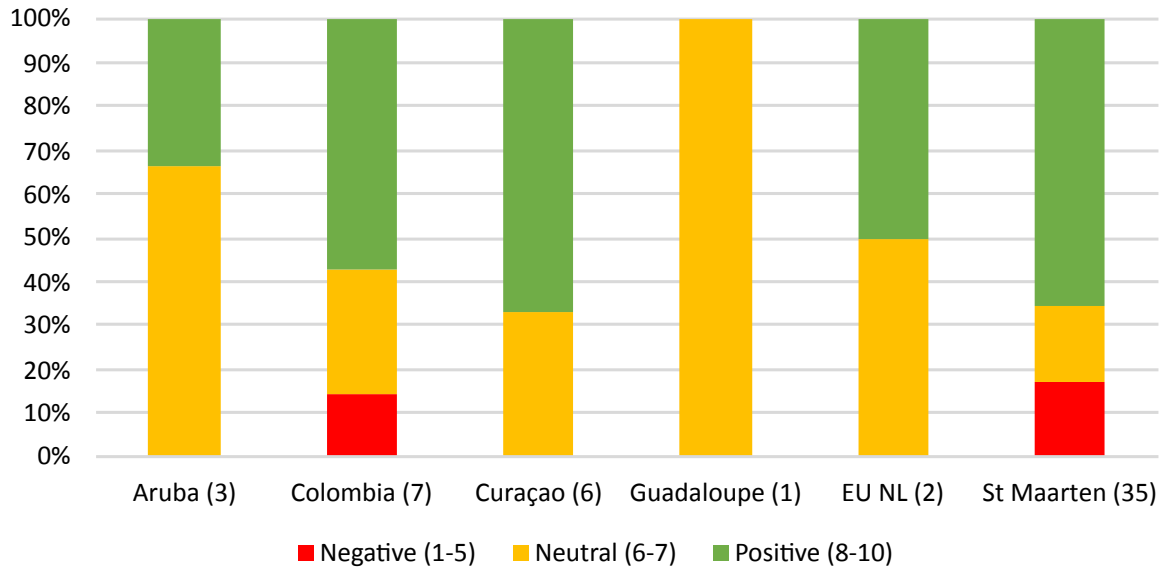
Source: VWS (2024c).

Fig. 5.4 Statians' satisfaction with overall referral experience by location, 2022



Source: VWS (2024c).

Fig. 5.5 Sabans' satisfaction with overall referral experience by location, 2022



Source: VWS (2024c).

5.3 Primary care

For primary care on Bonaire, depending on what care is needed, the entry point of the health system is either a GP, primary care midwife, dentist, physical therapist, pharmacist, social worker, or homecare (neighborhood) nurse (which can be both a vocationally trained (level 4) or university trained (level 5) nurse). Fundashon Mariadal offers advanced midwifery and maternity care, elderly care, homecare nursing and health services in schools. GPs can directly refer patients to hospital-

based medical specialists on Bonaire without mediation. For referrals to medical specialists in other countries, a medical specialist from Fundashon Mariadal has to provide a digital referral to ZJCN and a referral letter.

Residents of Bonaire are strongly advised to register with one of the GP clinics on the island. In theory, patients have the freedom to choose their own GP. In practice, however, there are only a few providers and the GP clinics are organized by neighborhoods in the towns. As part of the recently established umbrella organization, Primary Care Caribbean (PCC), GPs on Bonaire are more actively involved in health promotion and risk reduction (overheid.nl, 2020b). PCC provides both GP services and acts as independent advisor to all GPs on Bonaire. GPs on Bonaire now actively organize tailored care programs for patients that have, or are at risk of developing, diabetes, asthma, chronic obstructive pulmonary disease, and cardiovascular diseases. Furthermore, new programs such as *Praktijkondersteuner Somatiek* on Bonaire are training non-GPs to better guide patients with diabetes and to provide work relief for GPs. However, increasing strains on GP practices attributed to a growth in Bonaire's population and the inability for the system to keep pace (see Box 5.1.1), caused two offices of the largest practice on Bonaire (Bonaire Medisch Centrum) to temporarily stop taking new patients in recent years. Further population growth, in combination with an ageing population, may require an additional practice or expansion of the current practices (mainly in terms of staff).

Box 5.1.1 Key strengths and weaknesses of primary care on Bonaire

Strengths:

1. Good coordination between different GP clinics, including with support of PCC
2. Primary care increasingly active in health promotion and prevention.
3. Clear gatekeeping role for primary care practitioners.

Weaknesses:

1. Fragile position of primary care in terms of human resources.
2. Potentially inefficient coordination between primary and secondary care, e.g. in terms of referrals.
3. Healthcare quality standards from the European Netherlands not always translatable to the context of Bonaire.

In recent years, the role of GPs on Bonaire has expanded and, with the formation of the supporting role of PCC, there is increasing impetus for further professionalization and quality improvement in primary care. At the same time, the hospital has grown from an extended GP clinic in the direction of a full-scale hospital. Taken together, this further enables the improvement of coordination between primary and secondary care, including strengthening the gatekeeping role of GPs. Nevertheless, there are some signs that the use of quality of care instruments developed in the European Netherlands proves rather challenging in the context of the BES islands (van Lint, 2020).

Primary care services on St Eustatius and Saba are provided by SEHCF and Saba Cares. St Eustatius also has one private clinic for gynecological care, which works together with SEHCF (since November 2022) to provide direct access to obstetrics and gynecology services covered by the benefits package (the clinic also sees private patients that pay OOP). The staff GPs at both SEHCF and Saba Cares act as

gatekeepers, meaning referrals are necessary to access further care. As there is only a handful of GPs and only one provider on each island, freedom of choice in primary care is very limited, although patients can technically still choose their GP (see Box 5.1.2). GPs are responsible for all outpatient visits, for all admitted patients (both island providers have admissions units of 9-10 beds; emergencies, night and weekend consultations); and GPs on St Eustatius and Saba also provide services to the island nursing homes and home care. In Saba the latter fall under Saba Cares, in St Eustatius these services are provided by SEHCF (see Section 5.8).

Box 5.1.2 Key strengths and weaknesses of primary care on St Eustatius and Saba

Strengths:

1. Short lines and good coordination between all services; small teams with strong collaboration
2. Good organization of care and quality oriented
3. Focus on prevention, next to care and cure, as a shared responsibility with Public Health

Weaknesses:

1. Patients are more US American-oriented in their expectations of healthcare. They do not always understand nor accept the Dutch health system (i.e. the triage system)
2. Limited choice of care providers due to limited availability
3. Limited in what care can be offered safely and of good quality on small islands
4. Vulnerable due to small workforce; chronic threat of being understaffed

5.4 Specialized care

5.4.1 Specialized ambulatory care (outpatient)

Outpatient care on Bonaire is provided at the Fundashon Mariadal's hospital. Health workers providing this care are either salaried employees of Fundashon Mariadal or work via a temporary secondment structure as part of the twinning agreement with Amsterdam UMC (see Section 4.2). Within this *jumelage* agreement, health workers from Amsterdam UMC (and related peripheral hospitals in the European Netherlands) work in the hospital for a period ranging from several weeks to a year; most partaking in this agreement are medical specialists, followed by medical residents. For several medical specialties, the specialists are outpatient (which offer specific consultation hours for outpatient services that are organized within the hospital) whilst also being the responsible supervisor for all inpatient care within their specialty. The specialties for which ambulatory care is provided on Bonaire are: cardiology, general surgery, dermatology, gynecology and obstetrics, internal medicine, pediatric cardiology, pulmonology, neurology, ophthalmology, orthopedics, psychiatry, pediatric psychiatry, rheumatology, urology, nephrology, gastro-enterology, oncology, pediatrics, otorhinolaryngology, rehabilitation care, radiology, anesthesiology (pain management), and clinical genetics, though for some of these, specialists are not always available on-island.

For residents of St Eustatius and Saba, specialized care is provided by specialists which in some cases flown in, or by specialists in hospitals off-island (see Section 5.2). For example, among the top specialists that visited Saba Cares and provided 1944 consultations in 2023 included dermatologists, cardiologists, urologists and orthopedic surgeons. Here, medical specialists come primarily from SMMC, while nursing specialists, such as diabetic nurses and dieticians, mostly come from the White Yellow Cross Care Foundation (also based on St Maarten).

For specialists in hospitals off-island, SMMC on St Maarten is the first hospital for Statians and Sabans and provides ambulatory care in the main specialties.

5.4.2 Day care

Several day care services on Bonaire are available in the hospital. These include a theatre for day-surgeries (including dental surgery) and a supporting ward with five beds, a hemodialysis department, an administration lab for the clinical chemistry laboratory, an obstetrical unit for (poly)clinical deliveries, and a radiology department with a CT scanner and equipment for conventional (Bucky) radiology, ultrasound, and a mammography unit.

Day care treatments that can be provided on St Eustatius and Saba are done in the health centers and mainly deal with intravenous administration of medication or wound care. For dialysis, patients fly three times a week to SMMC (and nephrology referrals make up a big portion of those to SMMC, see Fig. 3.7).

5.4.3 Inpatient care

Inpatient care accounts for approximately 8% of all admissions to Fundashon Mariadal. The past five years show a 10% increase (adjusted for population growth) in the number of hospital admissions (Fundashon Mariadal, 2023b). This increase may be partly attributed to the increased availability of several medical specialties on Bonaire, and thus an increased production in terms of medical interventions that require a para-interventional hospitalization (see Box 5.2).

Box 5.2 Integration of care

Fundashon Mariadal has made progress in identifying care pathways, and as a comprehensive foundation, plays a key role in integrating secondary care with social and long-term care. The integration and coordination between primary (especially GP) and secondary care could be further improved, although the public health system remains understaffed and in need of further development, posing a challenge to further integration.

All parties on St Eustatius and Saba are working towards greater vertical integration, from public health to specialized care, and hoping to involve the use of new digital possibilities and require less travel. The underlying ambition is to deliver care that becomes more accessible with lower waiting times. When travel is necessary, the growing share of Statians and Sabans going to SMMC for care has contributed to integration and cooperation between GPs of the islands and SMMC's medical specialists, including when they visit patients on St Eustatius and Saba. Horizontally, there is integration between the medical centers on the islands and other stakeholders, such as social services and Mental Health Caribbean (MHC).

Saba Cares also employs a physician's assistant focused exclusively on chronic care for Sabans with diabetic, cardiovascular diseases and chronic obstructive pulmonary disease to help with continuity in the chronic care chain. Chronic specialist care is currently being restructured on St Eustatius.

In 2018, the hospitals on Aruba (Dr. Horacio E. Oduber Hospital (HOH)), Bonaire and Curaçao (the Curaçao Medical Center (CMC)) signed a far-reaching cooperation agreement and SMMC joined this agreement shortly after. Following on from these previous collaborations, and in the urgent context of the COVID-19 pandemic, a policy plan was drawn up in June 2020 with the aim of facilitating collaboration between the regional hospitals across the Dutch Caribbean islands. On 9 February 2021, it was formally decided to create the Dutch Caribbean Hospital Alliance (DCHA), including the medical institutions on St Eustatius and Saba, with the objective of "providing the best possible medical care locally and regionally through an anchored collaboration between the countries within the Kingdom and strategic partners, in which the well-being of our patients, the maintenance of a financially and economically healthy situation and safeguarding our cultural values are paramount." (RCN, 2021). The DCHA aims to jointly draw up a regional capacity plan, reduce the number of medical referrals (particularly outside the DCHA institutions), jointly purchase material, standardize working methods and protocols, and move to a shared vision on training and exchange of (medical) personnel. The activities of the DCHA formally commenced in June 2022.

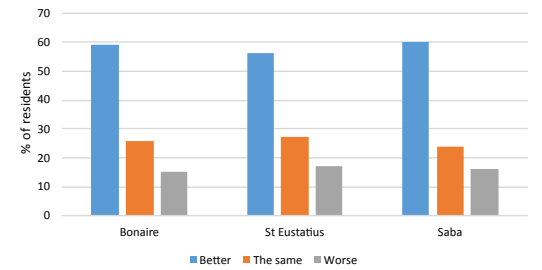
Where, historically, there were no medical specialties on Bonaire, Fundashon Mariadal's hospital currently provides most specialist care there (see Section 5.4.1). The hospital is currently not equipped with an intensive care unit. This means that patients in need of complex medical interventions must be referred to another hospital. For complex secondary care, patients are generally referred to Aruba or Curaçao, whereas most patients in need of tertiary care will be transferred to Colombia or the European Netherlands.

For the secondary and tertiary care patients from the BES islands that have to travel further in the region or to the European Netherlands, their travel and associated costs are organized and covered by ZJCN. No data on quality in the referred facilities is collected or made publicly available, while data and analyses on complaints are limited (see Box 5.3).

Box 5.3 What do patients think of the care they receive?

There is little public information available about how satisfied residents of the BES islands are with their health system and how satisfied patients are with the care provided, although providers do have their own complaint officers (see below). The most recent published, structured evaluation of overall satisfaction with the health system was performed in 2015, carried out by the Netherlands Institute for Social Research (SCP). Their report shows that 59% of Bonaireans, 56% of Statians and 60% of Sabans believed that the state of healthcare has improved since the 10/10/10 administrative reforms (see Fig. 5.6) (SCP, 2015).

Fig. 5.6 Survey results as to whether residents of the individual BES islands felt in 2015 that healthcare was better, the same or worse since 10/10/10



Source: Adapted from SCP (2015).

On Bonaire, internal complaint analyses from Fundashon Mariadal also provide some insight into the foremost reasons for dissatisfaction among patients. Fundashon Mariadal's analyses show that most medical complaints were related to the turnover of medical specialists and waiting times for a consultation, diagnosis, or treatment (Fundashon Mariadal, 2023b). There is a clear need for more research into how inhabitants of Bonaire experience the quality and accessibility of the health system and how patients experience the provision of care.

Saba Cares and SMMC conduct patient satisfaction surveys and ask patients frequently about their experiences and have complaint procedures. In general, the public is satisfied, but there are sensitive topics. One is the limited availability and limited freedom of choice due to the geographic characteristics of the region which creates feelings of dependency in the community. In general, health literacy in the community is low and there are differing expectations on what level of services are appropriate regarding health and healthcare. On St Eustatius, there is no inpatient evaluation of care, although patients can write letters on an individual basis. Often, social media is used to express satisfaction or dissatisfaction with the health system, the public entities or ZJCN. A demonstration was also held on Saba in late 2022 to express dissatisfaction with ZJCN, while an independent external complaint committee was installed around the same time (see Section 6.1) (Saba-news.com, 2022b; RCN, 2022). Information regarding satisfaction with off-island referrals is detailed in Section 5.2.

5.5 Urgent and emergency care

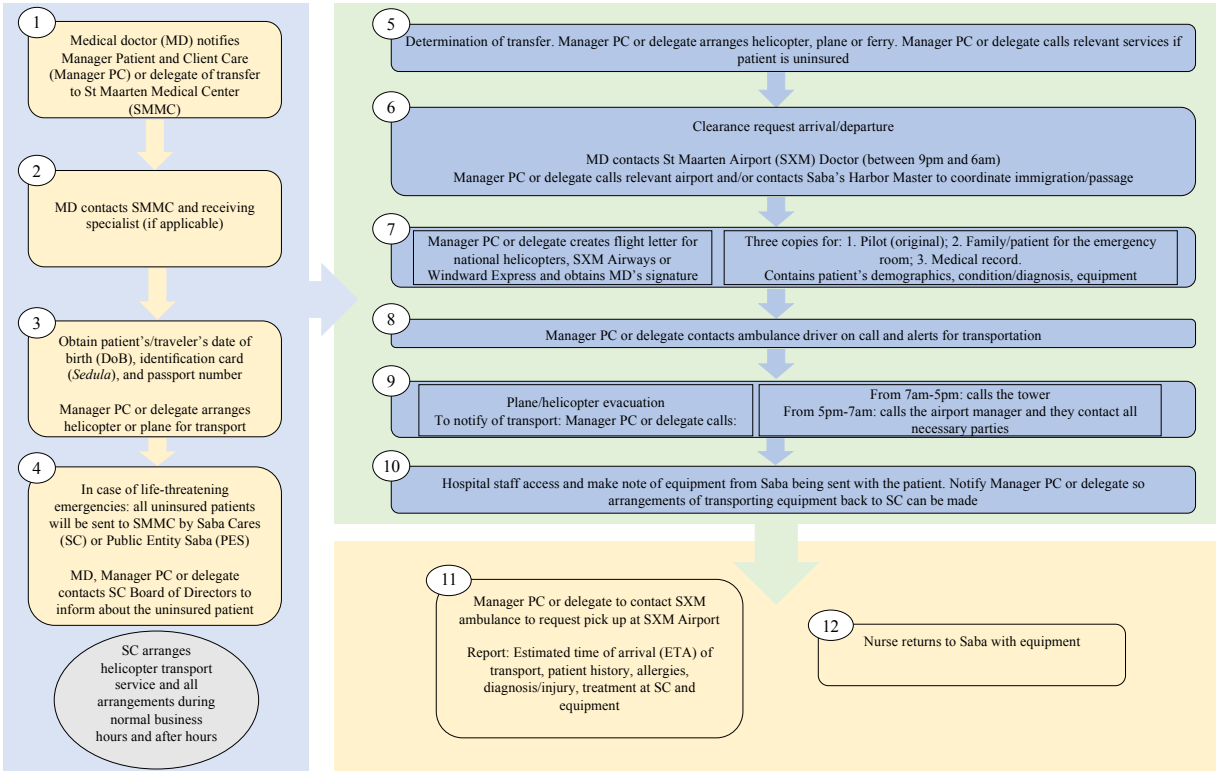
For all acute care pathways regarding urgent and emergency care on Bonaire, the hospital plays an important role. The first pathway constitutes patients who consulted a GP clinic or emergency GP (*huisartsenpost)* and were directly referred to Fundashon Mariadal's accident and emergency (A&E) department. The emergency GP clinic on Bonaire has opening hours from 18:00-23:00 during weekdays and 8:00-23:00 on weekends. A second possible pathway includes self-referring patients who directly visit the A&E department of the hospital, which operates 24-hours a day, 7 days a week. A third, but rare, pathway concerns patients from neighboring islands in need of acute care who are transferred to Bonaire using an Air Ambulance service that is operated by Fundashon Mariadal. Finally, there are patients on Bonaire who are transferred to the hospital using one of the three ground ambulances. Both the Air Ambulance and ground ambulance service are completely integrated into, and operated by, the A&E department of the hospital.

On St Eustatius and Saba, there are many parties involved in the process of emergency care, which is a vulnerable point for these two islands. Emergency care is provided first at the medical centers, 24/7, and small teams are always available for emergency calls. Triage is done and based on the outcome of the triage, the teams contact the respective ambulance services. There are on-call GPs and specialized nurses to further assess and decide if a trip to SMMC or father away is necessary. In those cases, additional parties are involved.

For example, when a helicopter on St Eustatius and Saba is required, the contracted company has to be contacted and all relevant airports have to be open. The helicopter has been stationed on St Eustatius since 2011 to provide emergency transport from there and Saba to St Maarten (pearlfmradio.sx, 2011). As the hospital is on St Maarten, another constituent country of the Kingdom, all necessary paperwork has to be in order to enter in an emergency care episode. The helicopter is also critical for nighttime operations, as the 400-meter-long runway at the Juancho E Yrausquin Airport on Saba is the shortest commercial airstrip in the world; lighting was installed for helicopter evacuations where nighttime airplane flights are not possible (pearlfmradio.sx, 2012).

Even though training in emergency processes is carried out extensively and regularly with doctors, nurses, and ambulance drivers, it necessitates constant investment to keep all skills on the right quality level, as the frequency of some acute disorders is low. For Saba, efforts have been put into improving the integration of the emergency process with all parties involved and there are now protocols and a shared emergency training once a year, as shown in Fig. 5.7 (the medevac protocol of Saba Cares).

Fig. 5.7 Saba Cares' emergency transfer workflow



Source: adapted from Saba Cares (2022).

5.6 Pharmaceutical care

There are three facilities that provide pharmaceutical care on Bonaire. Two of these pharmacies are operated by Fundashon Mariadal and are financed through annual budgets between ZJCN and Fundashon Mariadal. The third pharmacy on the island, which closed in May 2024, maintained a separate agreement with ZJCN in which the pharmacy was reimbursed against a fixed rate for every prescription (antilliaansdagblad.com, 2024).

As with other health workforce, there are currently significant shortages in skilled personnel to operate the pharmacies.[6] Both issues are generally ascribed to the expanding population of Bonaire and the island's dependency on import of medicines via air and sea freight. ePrescriptions have been implemented both for GPs and hospital-based physicians on Bonaire. To be able to still reach more vulnerable clients, Fundashon Mariadal is further exploring digital capabilities and services, and new working procedures for its pharmacies.

The Golden Rock pharmacy, a privately-owned facility, is the only pharmacy on St Eustatius. Golden Rock is responsible for distributing medicines and updating hospital medication supplies via the collaboration with SEHCF and there is digital exchange of information. When the only pharmacist is absent (a new one arrived in June 2023), there is a direct collaboration with a pharmacy in the European Netherlands and with one on St Maarten.

[6] The third Fundashon Mariadal-run pharmacy on Bonaire was closed to be able to concentrate personnel more efficiently.

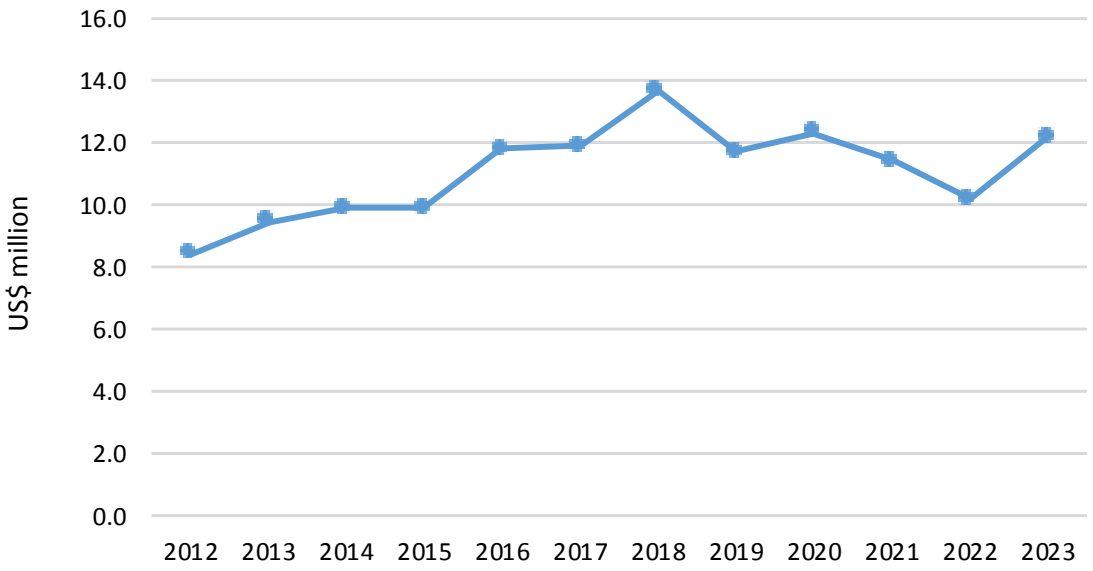
On Saba, Saba Wellness Pharmacy provides pharmaceutical care as a privately-owned facility. The pharmacy collaborates closely with Saba Cares (including in the emergency room) and there is digital data exchange. The pharmacist, with pharmaceutical assistants, provide this care.

Currently, pharmacies on the BES islands are only allowed to procure medicines from the pharmaceutical market in the European Netherlands. This imposes substantial shipping times and potential stock shortages. Available research for the BES islands shows that the consumption of antibiotics is high in general and that polypharmacy is a growing concern (Saba Government, 2023). There is also a risk regarding languages: the digital systems and medical information for pharmaceuticals (as well for the wider health system) use the Dutch language, whereas English is widely spoken on Saba and St Eustatius. For instance, medications primarily have a leaflet included in the Dutch language, which presents challenges for residents of all three islands.

Pharmacies, like other providers, also regularly collaborate with health system actors on the other Dutch Caribbean islands, where other rules may apply. This holds true for pharmaceuticals for Aruba and Curaçao, where procurement is not restricted to the European Netherlands. Another aim of the DCHA therefore is to work on pooled procurement of medicines across the participating islands.

Pharmaceutical expenditure on the BES islands has increased from US$ 8.4 million in 2012 to US$ 12.2 million in 2023, with a highpoint in 2018 and reductions during the years of the COVID-19 pandemic (see Fig. 5.8).

Fig. 5.8 Trends in annual pharmaceutical expenditure on the BES islands in US$ million, 2012-2023



Source: VWS (2024a).

5.7 Rehabilitation/intermediate care

There are several providers for rehabilitation care on Bonaire. The hospital employs a part-time rehabilitation physician and has a small intramural rehabilitation center. There is a strong network between the private and semi-private rehabilitation care providers on Bonaire, with sufficient integration. Most of the rehabilitation services are offered by physical and occupational therapists. In case of complex rehabilitation care, patients can be referred to Curaçao.

Intermediate care for all indications, social, mental, or somatic, is provided if needed and possible by the medical centers on St Eustatius and Saba. Often, the providers cooperate with other stakeholders, such as social workers or MHC staff. Depending on the needs, patients will be admitted in the ward or in the nursing home. Saba Cares' new facility will further broaden the possibilities for intermediate care. There is one physiotherapist on St Eustatius as part of SEHCF, as well as Expertise Centre Education (ECE) to support children with needs. On Saba there is also Expertise Center Education Care (EC2), which supports children with needs. Rehabilitation care, ambulatory and in the nursing home, is provided by one physical therapist on Saba. Since the COVID-19 pandemic, there is a waiting list for the physical therapist. Cooperation with the local fitness center over the last year has resulted in more equipment available for rehabilitation.

5.8 Long-term care

There are several organizations for LTC on Bonaire. For the elderly, the Zorg en Welzijn Groep provides day care activities for those with dementia as well as those who are physically challenged at four locations. Three are in and around the capital of Kralendijk – Villa Antonia (Antriol), Kas di Karko (Nort di Saliña) and Kas Sabana (Sabana) – while the fourth, Cocari, is in Rincon. Fundashon Kalor di Hogar offers an elderly care home with 13 beds in Antriol (a neighborhood of the capital). Finally, Fundashon Mariadal is responsible for the organization of its nursing home Kas di Kuido with Ka'i di Mimina as an external elderly day care facility. All facilities currently have a waiting list for their day care facilities, as their maximum capacity has been reached.

Fundashon Mariadal's Kas di Kuido is the foremost residential nursing home on Bonaire, with a capacity of 74. There are three departments: one for (long-stay) somatic patients and two for psychogeriatric patients. Since 2015, there is a year-round elderly care specialist present (organized via the *jumelage* agreement). In 2021, Fundashon Mariadal formally established a collaboration with the elderly care organization Kennemerhart from the European Netherlands (see Section 6.1). The aim of this collaboration is to initiate and maintain a learning network for knowledge sharing and quality improvement, as part of Fundashon Mariadal's commitment to the Quality Framework Nursing Home Care (*Kwaliteitskader Verpleeghuiszorg*). Fundashon Mariadal is the only formal provider of home care on Bonaire. It offers homecare and neighborhood nursing services through its Sentro di Salu Convent.

Fundashon Kuido pa Personanan Desabilitá (FKPD) provides care for Bonaireans living with disabilities. FKPD has facilities to offer day care for adults and care for the elderly; there is also an assisted living facility. For children aged 4-16 years, there is after-school care.

Saba Cares provides LTC in a nursing home for twenty-two clients and home healthcare for 60 clients. Additionally, they provide a day activity center four days a week for 40 clients, both those living at home and clients of the nursing home; they also provide activities on holidays. GPs on Saba refer patients to the nursing home and one GP from Saba Cares is assigned as the nursing home doctor. Additionally, clients who are originally from Saba and emigrated but want to spend the last phase of

their life on Saba can be admitted to the nursing home. At the time of writing (May 2024), all referred patients have been accommodated at the nursing home.

Saba Cares is building a new care facility which includes a nursing home with three residential groups, based on lifestyle and care needs. The care facility will provide an individual living room and bathroom for each client, a restaurant and activity room. There will also be a building with 17 apartments for intermediate, assisted living and other care (see Section 4.1.1). Client-centered care will also be adopted in the new facility. To ensure this model of care is introduced in the new care facility upon opening, training of staff in the provision of this care has already commenced to ensure a high quality of provision from the outset. Still, the coordination of LTC between Saba Cares and other organizations on the island needs improvement.

On St Eustatius, the St Eustatius Auxiliary Home Foundation provides LTC for disabled persons and the elderly. Originally only a day care center, a facility for in-house living was completed in 1996, first with eight beds, and has since expanded to offer 21 beds in total. Furthermore, Chapelpiece is a facility offering day care and daytime activities for the elderly. Currently about 40 participants use this facility per day. There is also homecare that is provided by SEHCF and about 55 elderly residents make use of this service.

Investments are working to expand the facilities in the field of social support. This includes the aforementioned daytime activities, but also, for example, meals on wheels, social transport in addition to medical transport (reimbursed via Raz BES), home support (*huishoudelijke ondersteuning*) and temporary accommodation (*tijdelijk logeren*) to support informal carers. Furthermore, the implementation of the Social Support Act (*Wet maatschappelijke ondersteuning,* Wmo), as in the European Netherlands, in 2024 will enable frameworks for improvements in the integration and coordination of LTC, together with necessary social support. Here, investments are also being made to prepare providers for the law's implementation to improve facilities and provide programming and general services (*algemene voorzieningen*) for local residents (VWS, n.d.).

5.9 Services for informal carers

The formal health system on Bonaire relies strongly on informal caregivers and charitable organizations. The formal home care organization, for instance, does not offer cleaning or breakfast services for elderly clients (IGJ, 2023). For such services, the home care organization generally refers to informal care organizations, family members, or religious organizations. In 2019, the National Ombudsman noted that the informal care services for older people on Bonaire were highly inadequate (De Nationale Ombudsman, 2019). Despite numerous improvements since that time, the overall informal care system remains fragile. This is especially salient given population growth, the increasingly ageing population and rising costs for everyday living and sustenance. A social minimum benefit (previously absent on the BES islands) is planned for implementation from 1 July 2024 and will use government policy to financially support residents that have insufficient income for daily living and sustenance costs (Samson, 2023).

Informal carers also play an important role in healthcare on St Eustatius and Saba. When, for instance, a patient is referred to a hospital on another island, a companion is often needed. Both islands are not easy for walking or driving, so the elderly are often dependent on support. There are several persons with an intellectual disability or other conditions who are being cared for by their relatives. The role of informal carers is not remunerated beyond the daily travel allowance in case of accompanying a family member on a referral (travel allowances are between US$ 20-25 for the insured patient and their companion each, depending on location).

A social support (*maatschappelijke ondersteuning*) pilot will also start on all three islands in 2024. The goal is to allow patients/clients to participate in society and be self-reliant for as long as possible with the help of their informal network. Both clients and their informal carers can receive support from the public entities and ZJCN. This pilot is linked to the new BES Social Support Decree (*Besluit maatschappelijke ondersteuning BES*) from mid-2023, which will regulate social support formally (rijksoverheid.nl, 2024b).

5.10 Palliative care

Palliative care is still under development on the BES islands. This has partly to do with different beliefs and cultural responses to palliative care. Generally speaking, patients expect healthcare providers to exhaust all medical options. Do Not Resuscitate (DNR) conversations and Advanced Care Planning (ACP) are highly uncommon.

Euthanasia is a politically and culturally sensitive topic, although Dutch legislation applies (facilitated by Raz BES). Any treatments (radiology, chemotherapy) for palliative patients are done on other islands. The development of context-sensitive palliative care, and especially the alignment between formal and informal care, remains a topic for further attention.

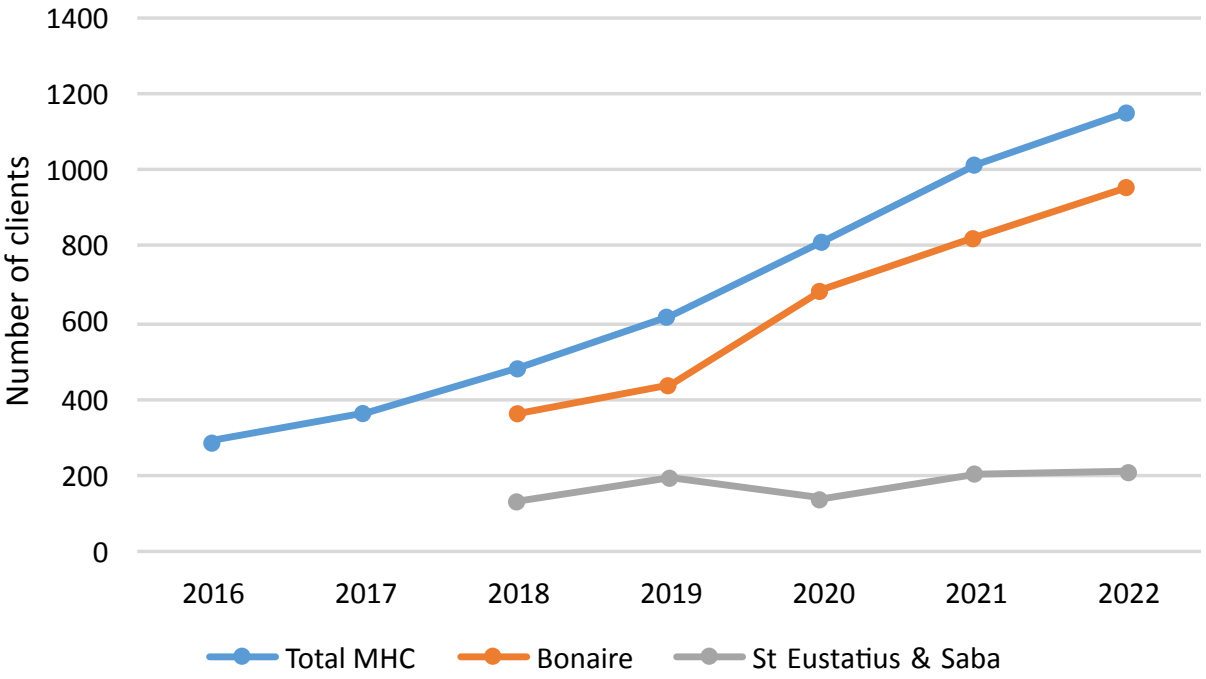
In recent years conversations about palliative care have become more common and initiatives have been developed. For example, Hospice Kas Flamboyant on Bonaire has a bed capacity of four and can provide respite care, when necessary, though their limited space and a growing elderly population mean that their capacities are limited. Furthermore, Fundashon Mariadal has created a contact point for questions about palliative care, euthanasia, or palliative sedation. Fundashon Mariadal has begun providing palliative home care.

5.11 Mental healthcare

MHC (founded in 2012) is the main provider of outpatient psychological, psychiatric, and addiction care for residents of the BES islands. MHC is an independent foundation and contracted by ZJCN. ZJCN can request MHC to implement certain mental health services, and MHC can accept these requests if it matches its strategic aims. The legal framework for compulsory admissions of psychiatric clients (usually in facilities abroad) for residents of the BES islands comes from the antiquated 1892 law (*Wet tot regeling van het toezicht op psychiatrische patiënten BES*), now known as the BES Supervision of Psychiatric Patients Act. Currently, a working group with representatives of the six Dutch Caribbean islands is developing an alternative legal framework to replace this outdated law.

MHC has their headquarters on Bonaire. There were 73.87 FTE staff for MHC across the BES islands in 2022, up from 33.54 in 2016. Over the same period, the MHC budget rose from US$ 4.5 million to US$ 8.2 million. This also corresponds with a steady increase of MHC clients on Bonaire, while staying roughly stable on St Eustatius and Saba (see Fig. 5.9).

Fig. 5.9 Number of MHC clients on the BES islands, 2016-2022



Source: MHC (2023).

Prior to 2012, mental health services on Bonaire were very limited. The Bonaire Addiction Care Foundation, consisting of one staff member, provided outpatient addiction care in close cooperation with two social psychiatric nurses from the Department of Health and Hygiene and a psychiatrist from Fundashon Mariadal. Psychologists and psychiatrists were flown in from Curaçao to Bonaire to treat adults (once every two weeks) and children (once every six weeks). Clients were also flown out regularly to receive inpatient treatment abroad. Once every three months psychiatrists from Curaçao would come to Saba and St Eustatius for a few days to see a large number of clients (around 50 per visit). Occasionally psychologists were also flown in or clients were referred to a psychologist on St Maarten. Admissions to Klinika Capriles on Curaçao were also made from St Maarten.

Since 2012, implementing a broadly composed multidisciplinary Flexible Assertive Community Treatment (F-ACT) team has contributed to fewer admissions abroad. The F-ACT team works in an outreaching and ambulatory manner and treats clients with severe psychiatric disorders in their own environment. This method prevents escalations by identifying problems and acting at an early stage. The F-ACT method of MHC is applied on all three BES islands. Bonaire has been certified with the distinction of “optimal implementation” by the European Dutch organization Certification Centre for ACT and F-ACT (CCAF). MHC is currently implementing its strategic plan 2022-2025. It was developed in strategy sessions with management and policy staff. Internal and external developments and challenges were considered, such as the growth strategy, the place to organize and localize MHC activities and future staff, governance, organization, culture and communication needs. The plan was approved by the supervisory board in February 2022.

Mental healthcare on Bonaire is provided on an outpatient basis in close cooperation with the formal and informal support system of the client. A referral from a GP or specialist is needed to gain access to mental health services (see Table 5.2). Clients needing psychosocial care are referred to Sentro Akseso (a separate foundation), which provides parenting support, budget counselling, relationship

counselling and help from a social worker, pedagogue and/or a behavioral scientist. Clients with mild symptoms who are not classified under the Diagnostic and Statistical Manual of Mental Disorders, 5th edition (DSM-V) are referred to a general practice mental health worker (*Praktijkondersteuner Huisarts Geestelijke Gezondheidszorg*, POH-GGZ) at their GP's practice. These mental health workers are employed by PCC.

For more specialized care, clients are referred to MHC. MHC offers all-round mental healthcare on the BES islands and employs various disciplines such as psychiatric nurses, (child and youth) psychologists, (child and youth) psychiatrists, social workers, activity counsellors, residential counsellors and forensic care staff. In 2013, Sentro Nos Perseveransia on Bonaire opened under the direction of MHC to offer temporary residential, counseling in one's own environment, activities and skills building and detoxification services. Since February 2020, clients with a suspected DSM disorder in combination with mild-to-moderate impairment of function have been referred to the outpatient clinics at Fundashon Mariadal. On Bonaire children and adolescents with psychiatric or psychological problems are (since 2018) referred to the treatment center Hi-5, also part of MHC. Along with their family, children up to 18 years of age receive an ambulatory diagnosis, treatment and supervision from a multidisciplinary team.

Table 5.2 Overview of mental healthcare provision on Bonaire

Provider of care	Type of care available for
GP/ general practice mental health worker	Mild disorders (no DSM-V), referral to other levels of care
Sentro Akseso Boneiru	Psychosocial problems
MHC	DSM-V disorders

Source: MHC (2023).

MHC also provides customized care for a wide range of mental, psychiatric and/or addiction problems on Saba and St Eustatius. The basic principle is a demand-oriented, client- and where possible system-oriented and recovery-supportive approach offered on an outpatient basis. Treatment is initiated following a referral from a GP or specialist. MHC has a psychiatric nurse permanently stationed on both St Eustatius and Saba, with visiting GZ (*Gezondheidszorg*) psychologists and psychiatrists. Online treatment is also offered in between the visits. If clients need further assistance, they are referred off-island. The psychiatrist visits Saba and St Eustatius every six weeks and is also available online.

In cases where the severity of the problem requires specialized treatment that is not available on Saba or St Eustatius, colleagues at MHC Bonaire or experts beyond the BES islands are consulted. Where the severity of the problem requires clinical admission, or other treatment within the highly specialized Dutch Association of Mental Health and Addiction Care (*GGZ Nederland, Geestelijke Gezondheidszorg*), collaboration is sought with organizations on nearby islands such as the CAS islands and/or the European Netherlands. Admission to a clinic is usually the last intervention as there are no inpatient facilities available on Bonaire, St Eustatius or Saba. In cases of high-complexity psychiatric care, clients are admitted abroad to the CAS islands or the European Netherlands. The 1892 legal framework for compulsory admissions abroad is used primarily for admission to Klinika Capriles on Curaçao for Bonaireans and to the St Maarten Mental Health Foundation for Statians and Sabans. MHC has a quality assurance agreement with Klinika Capriles and St Maarten Mental Health

Foundation so that clients receive high quality care abroad, however, the internal and external legal position of the client is not well established in the 1892 law. For the BES islands together, the law was enforced for about 13 people per year from 2020 to 2022.

MHC uses Promedico to register client records electronically. Even though it was not possible to embed the DSM-V classification in Promedico as the program was originally created for primary care, MHC has since used the International Classification of Primary Care (ICPC) codes to register the DSM-V diagnoses electronically. Until the beginning of 2023, the DSM-V classification was recorded in a free text field, in which the practitioner was free to choose their own description of the problem, with no uniform link to ICPC codes. This made it difficult to accurately map out under which classification clients were treated. Thus, MHC implemented guidelines regarding the registration of the DSM-V classification and its translation into the corresponding ICPC code in Promedico, so that practitioners record this in a uniform method. Since then, it has been easier for policy staff to generate a numerical overview of the DSM-V classifications of clients from Promedico.

Resilensia (opened in 2021) is a department of MHC on Bonaire that offers primary mental healthcare for adults and children (maximum 9 sessions) with mild-to-moderate mental health complaints. Treatments can also be supported with eHealth. It offers clients the opportunity to work on their recovery process outside of the sessions, at their own pace and in their own environment. Clients go through the modules under the guidance of their therapist. The online modules offer videos, assignments and information about different mental health problems. More intensive care is also available in ambulatory care for adults, children and adolescents, day treatment, forensic care and residential counselling.

Center “Nos Perseveransia” has been offering temporary residential care for adults with addiction problems and/or psychiatric problems (in combination with mild intellectual disabilities) on Bonaire since 2013. Focusing on social recovery, empowerment and skills development so that clients, despite temporary or permanent disabilities, can function to the best of their ability in the environment of their choice. Learning household and social skills, (job) counseling, daytime activities and detox also fall under the care provided at Center “Nos Perseveransia”. Forensic care is available for clients with addiction and/or psychiatric problems who come into contact with the justice system. This is provided in close cooperation with the probation office of Stichting Reclassering Caribisch Nederland.

From 2014 to 2018 MHC was commissioned to carry out universal prevention activities concerning mental health and addiction on the BES islands. Prevention activities were aimed at children and their parents to reduce the risk of substance use by youth. Since the public entities took over universal prevention in 2018, less prevention activities have focused on mental health. Nevertheless, MHC still organizes several workshops based on the needs of the community which may vary per island. Moreover, the course “Mental Health First Aid” (financed by ZonMw) is organized once a year on Bonaire (since 2021), and on St Eustatius and Saba (both since 2023). This course teaches participants how to offer first aid for mental health problems in both early and acute stages.

Challenges that remain are the development of effective care on the islands that surrounds the treatment facilities already in place. An important theme here remains cooperation between care facilities and social developments on the BES islands. MHC’s offer of treatments and interventions to clients are limited by the social challenges and problems that residents face. One of those social challenges is poverty and the lack of an acceptable social welfare. This impacts the influx of clients and the ultimate quality of treatment.

Furthermore, the taboo around mental health remains challenging, with the potential consequence of people with addiction or psychiatric problems being cast out from their family or social groups.

People often make use of informal care systems (including pastoral care) and may be less likely to make use of formal care, welfare or the police. There is a high incidence of domestic violence where it is suspected that alcohol plays a role. However, excessive alcohol consumption is generally not societally considered problematic nor do people have information on where to turn for help. Moreover, language and cultural barriers hinder native and other communities from accessing mental health services often offered in the Dutch language.

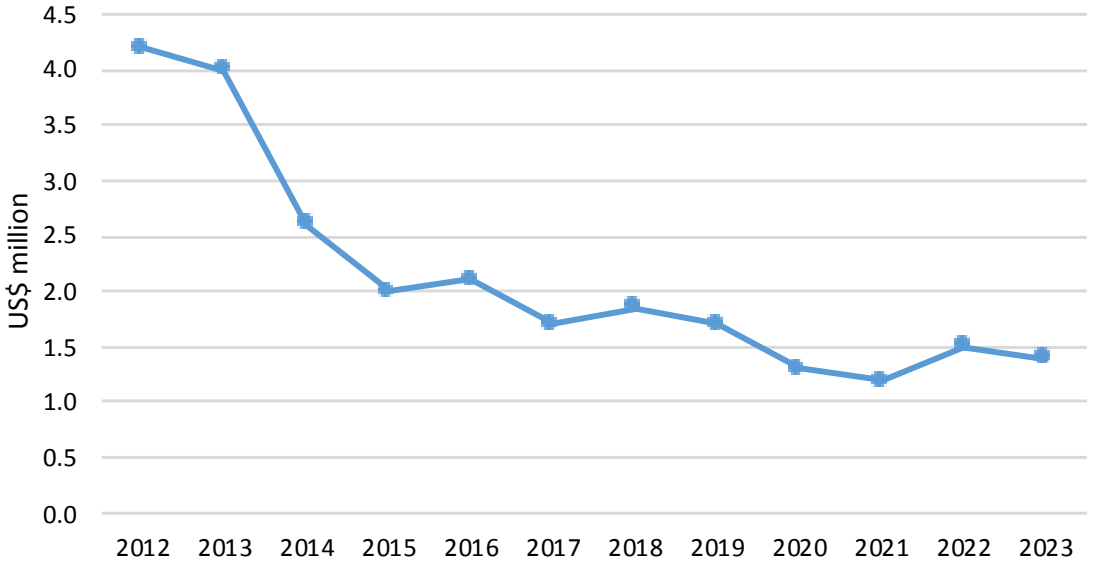
In 2020, MHC initially had a decrease in the number of referrals, likely due to COVID-19 measures. However, referrals increased rapidly during the rest of the year and waiting lists emerged for the first time in MHC's history. Some of the complaints and referrals on Bonaire can be related to the COVID-19 pandemic. In 2021, MHC again saw a substantial influx of new referrals: for adults, children and for primary mental healthcare, though this was less noticeable on St Eustatius and Saba. These can be divided into three categories: 1) Deferred referrals related to COVID-19, such as clients with existing complaints who, due to COVID-19, postponed their visit to the GP and consequently their referral was also postponed; 2) Problems in clients related to or exacerbated by COVID-19, for example, anxiety and/or depression; 3) Problems that arose in clients due to the consequences of COVID-19 measures, such as loneliness, poverty, relationship problems, housing, and unemployment.

5.12 Dental care

There are currently three privately-run dental clinics and one clinic for dental hygiene on Bonaire. Drinking water on Bonaire is not actively fluoridated. There is one dental clinic on St Eustatius, situated inside SEHCF and privately operated. One of the dental clinics operating on Bonaire provides dental care on Saba at Saba Cares; they visit three days per week at present. Once a month, an orthodontist also visits Saba to see private patients.

For all residents of the BES islands below 18 years old, dental healthcare is covered by the sole insurance package offered by ZJCN. For anyone 18 years old and older, a limited selection of dental interventions is covered under the basic benefits package. No option exists to buy voluntary health insurance to cover dental care. No data is collected on out-of-pocket expenditure on dental care, neither on how many residents go abroad for dental treatment. Immediately following the 10/10/10 reforms until the end of 2014, full dental and orthodontic care were included in the benefits package to get all residents up to a standard level, afterwards limiting full coverage to minors and some emergency procedures. There is a specific reimbursement policy for the costs of extraction of dental elements for those with low incomes – these costs are covered by the social affairs unit from RCN. The tariffs for dental procedures are regulated by ZJCN, based on codes from NZa. Recorded dental care expenditure totaled US$ 1.4 million in 2023 across the BES islands, down from US$ 4.2 million in 2012 (see Fig. 5.10).

Fig. 5.10 Trends in annual dental expenditure on the BES islands in US$ million, 2012-2023



Source: VWS (2024a).

6. Principal health reforms

- Post-2010 Reforms in the BES Islands have focused on upgrading the health system to reach a standard that would be acceptable in the Netherlands. They include the introduction of the mandatory, universal health insurance scheme under the BES Health Insurance Decree and the Healthcare Insurance Claims Regulation (Raz BES).
- Reforms have focused on improving healthcare accessibility and quality and harmonizing regulations with those of the European Netherlands but adapting them to local needs. Furthermore, reforms have been implemented to enhance medical facilities, emergency services, alongside improving pharmaceutical, home, and mental healthcare.
- Efforts have also been made to strengthen primary care by introducing the gatekeeping function for GPs and mental healthcare. Investments have been made on Saba and St Eustatius to establish well-equipped primary healthcare providers (the medical centers).
- Expanding the *jumelage* agreement at Fundashon Mariadal has boosted provision of care on Bonaire substantially, while initiatives like DCHA and DuCaPHEN were established to boost regional healthcare capacity and prepare for health emergencies.
- Until 2019, policies for the BES Islands were based on legislative restraint, meaning European Dutch laws and regulations did not automatically apply. Since 2019, this approach has shifted to the "comply-or-explain" principle, where new European Dutch policies and regulations are expected to be implemented on the BES Islands unless there are valid reasons to opt out.
- The next development stage aims to achieve healthcare service levels comparable to the European Netherlands, with a focus on facility development, empowering local entities, and enhancing service quality.
- Future plans include developing a local healthcare workforce, employing technology in healthcare, and ensuring patient-centered care, especially for vulnerable groups. Additionally, the threats posed to the BES islands by climate change are now being actively considered in forecasting and future planning, while the use of sustainable practices are now part of the agenda across policy areas.
- To more effectively implement new reforms, regulations and initiatives, and to account for complexities and differing capacities, the formal governance relationship between the public entities and The Hague, including the health system, is being discussed.

6.1 Analysis of recent reforms

The initial aim of VWS in terms of improving healthcare on the BES islands after 10/10/10 was to work towards a level of service that would be “acceptable” within the Netherlands, given the circumstances of being small islands with high levels of poverty that are far away from the European Netherlands. Thus, the first areas of focus were to build an accessible health system that would improve on the pre-2010 system(s), including upgrading health facilities, increasing the availability and quality of emergency care and certain specialist services, introducing mandatory, universal health insurance coverage for all legal residents, and improving pharmaceutical care, home care and mental health services.

A brief overview of reforms during the period 2010–2024 is provided in Table 6.1. For the next stage of development of healthcare on the BES islands, see Section 6.2.

Table 6.1 Chronology of main reforms of the BES islands' health system, 2010 - 2024

Year	Name and details of reform
2010-2011	Dissolution of the Netherlands Antilles and the formation of the BES islands as the Caribbean Netherlands, with Bonaire, St Eustatius and Saba joining the Netherlands special municipalities and public entities; introduction of the mandatory, universal health insurance scheme under the BES Health Insurance Decree and Healthcare Insurance Claims Regulation (Raz BES). The Department of International Affairs of VWS assumes stewardship of the health system, while its Health Insurance Office (ZVK) on Bonaire is responsible for contracting, purchasing and insuring (including for care requiring off-island referral).
2011	Start of the *jumelage* agreement to bring specialists from Amsterdam University Medical Center (UMC) to Fundashon Mariadal on Bonaire for longer rotations. Begin to expand primary care on all three islands and secondary care on Bonaire
2011-2012	Introduction of emergency helicopter transport for St Eustatius and Saba (2011), based on St Eustatius; introduction of the air ambulance service on Bonaire (2012)
2012	Mental Health Caribbean (MHC) founded
2019	Switch from the principle of legislative restraint to that of comply-or-explain
2019	Public entities' public health departments take on and strengthen the tasks of prevention and support
2020	Creation of a newly established department within VWS, the Department of Care and Youth Caribbean Netherlands (*Zorg en Jeugd Caribisch Nederland*, ZJCN), taking over from ZVK.
2021	Founding of Primary Care Caribbean (PCC) to support GP practices on Bonaire
2021	Establishment of the Dutch Caribbean Hospital Alliance (DCHA)
2021	Beginning of pilot population screenings for certain cancers by the Center for Population Research
2022	Establishment of Sentro Akseso Boneiru
2022	Establishment of an independent and external complaints advisory committee to assist in the complaints procedure when residents file a complaint against ZJCN.
2022	Beginning of the direct referral pilot program for patients from St Eustatius and Saba to SMMC
2023	First meetings held with RIVM to establish a cancer registry for the BES islands
2024	Beginning of the social support (*maatschappelijke ondersteuning*) pilot

Source: authors' own elaboration.

Major pieces of legislation that came into effect upon the governance change in 2010 include the BES Healthcare Institutions Act (*Wet zorginstellingen BES*), the Public Health Act (*Wet Publieke Gezondheid*), the BES Security Act (*Veiligheidswet BES*) and the BES Personal Data Protection Act (*Wet bescherming persoonsgegevens BES*). At the same time, a legal framework for a new health insurance scheme was introduced via the BES Health Insurance Decree. This came with a set list of entitlements, detailed via the BES Health Insurance Claims Regulation (*Regeling aanspraken*

zorgverzekering BES, Raz BES), with VWS as the single payer and purchaser of healthcare services for registered inhabitants of the BES islands. Also included in the BES Health Insurance Decree is the level of indirect contribution that residents contribute via tax to the health system. Within VWS, the Department of International Affairs (*Directie Internationale Zaken*) took on the portfolio of stewarding the health system on the BES islands. Responsibility for purchasing health services and insuring the residents then fell to the Health Insurance Office (*Zorgverzekeringskantoor,* ZVK) located on Bonaire.

To meet the goals of acceptable care, the *jumelage* system was created in 2011 to facilitate a greater number of specialists coming from the European Netherlands to Fundashon Mariadal's hospital on Bonaire. This increased both the availability and quality of specialty services available.

Until 2019, the principle of legislative restraint (*legislatieve terughoudendheid*) applied to policymaking and regulation for the BES islands, which meant that European-Dutch laws and regulations were in principle not applied unless there were good reasons to do so (BZK, 2023). Since 2019, a gradual shift has begun from the side of The Hague to move from the practice of legislative restraint for the BES islands to the comply-or-explain principle. This principle means that new European Dutch policy goals or focal areas, including any accompanying new regulations, are (or would need to be) also applicable on the BES islands, unless there are reasons not to do so. In that context, efforts are being made to adjust outdated laws and regulations and to draft certain framework legislation. However, many of the tasks are complex and the differences great between what a regulation says and what the capacities are on the BES islands to implement them.

In 2020, a new department was established within VWS to be specifically focused on the BES islands: the Department Care and Youth Caribbean Netherlands (*Directie Zorg en Jeugd in Caribisch Nederland, ZJCN*). ZJCN merged ZVK and the former Youth Care and Guardianship Council.

In 2021, the umbrella organization Primary Care Caribbean (PCC) was established on Bonaire to support GP practices with substantive and facilitative support to improve primary care and ensure that best practices and developments in quality, cooperation and organization are implemented.

Saba Health Care Foundation, responsible for running the medical center since the 2010 reforms, and Benevolent Foundation Saba, which was responsible for long-term care home in The Bottom since 1969, merged into Saba Cares in 2021. In the years prior, they had already been working hand-in-hand since merging their boards in 2016. The finalized merger has enabled greater efficiency and collaboration between healthcare facilities on Saba.

Additionally, in 2021, the Center for Population Research (*Centrum voor Bevolkingsonderzoek*) of RIVM began working with a local implementation team and partners on the BES islands to pilot population screenings for breast cancer. The first 2-year cycle was completed on Bonaire at the end of May 2023. Between May 2021 and May 2023, more than 1 300 of the estimated 3 700 women aged between 50 and 75 years old who belong to the target group participated (in Spring 2023, the first monitor was released for the breast cancer population survey on Bonaire for the period May 2021- May 2022). The breast cancer screening program started on Saba in April 2023 and on St Eustatius in July 2023 and is thus now running on all three islands. Participants go to St Maarten for their mammography examination. A pilot for cervical cancer screenings is also ongoing on all three islands, starting on Saba in February 2022, on St Eustatius in June 2022, and on Bonaire in November 2022, to be followed by pilot screenings for colon cancer.

In 2022, Sentro Akseso Boneiru, a community-oriented organization on Bonaire that provides tailor-made social support services which originated from the merger of several smaller organizations, was

founded to provide services such as debt counselling, domestic violence interventions and parenting support.

Beginning in November 2022, ZJCN began a pilot program to grant automatic approval for medical referrals for Sabans and Statians for care at SMMC. This pilot project directly facilitates medical referrals given by GPs at SEHCF and Saba Cares for their patients to seek specialist care at SMMC, no longer first needing approval from ZJCN's medical advisors (the medical advisor role is different to that in the European Netherlands). Instead, the appointments are made directly with SMMC's International Patient Office after they receive confirmation of the referral, although related logistics, including flights, accommodation and allowances remain the responsibility of ZJCN. An evaluation of the pilot in 2023 indicated broad support for the program, a strengthened role for Statian and Saban GPs and more equity for residents on those islands vis-à-vis their Bonairean counterparts. ZJCN adopted the program as general practice at the end of 2023 (VWS, 2023).

Additionally, in November 2022, an independent and external complaints advisory committee (*Klachtadviescommissie*) was created to offer advice when ZJCN is evaluating complaints. The advisory committee positions were open to general application and five members sit on the committee, including the former Governor of the Netherlands Antilles. The committee is foreseen to provide advice when ZJCN receives a complaint about which additional consultations are needed, although the resident filing the complaint does not have the power to choose whether their complaint is taken up by the advisory committee (RCN, 2022).

The social support (*maatschappelijke ondersteuning*) pilot aims to enable patients/clients to participate in society and be self-reliant for as long as possible with the help of their informal network. Both clients and their informal carers can receive support from the public entities and ZJCN.

Several other facilities have also opened or began new collaborations in recent years, including:

- The Dutch Caribbean Hospital Alliance (DCHA) was founded in 2021, resulting from major lessons from the impact of the COVID-19 pandemic on both the BES and CAS islands and the aim to better facilitate cooperation between the hospitals in the Caribbean part of the Kingdom.
- In June 2023 during a health consultation (*vierlandenoverleg gezondheid*) on Curaçao and in response to the COVID-19 pandemic, Curaçao, Aruba, Sint Maarten, and the Netherlands created the Dutch Caribbean Public Health Expertise Network (DuCaPHEN) (overheid.nl, 2023d). This public health hub in the Caribbean (*Caribische HUB*) is designed to enhance local public health departments' capacity and expertise in communicable disease control and pandemic preparedness, focusing on the Dutch Caribbean, including the BES islands, ensuring they are well-equipped to handle future challenges. DuCaPHEN's objectives include developing a strong infrastructure for information sharing and implementing comprehensive regional cooperation and surveillance strategies among public health professionals from the islands, RIVM and other relevant stakeholders, and to stimulate the development and availability of expertise.
- Resilensia opened in 2021. This is a department of MHC on Bonaire that offers basic mental healthcare for adults (maximum 7 sessions) and children (maximum 9 sessions) with mild-to-moderate mental health complaints.
- Kennemerhart (Haarlem) and Fundashon Mariadal signed a cooperation agreement in 2021 to create a mutual learning environment and enable the long-term care staff on Bonaire to beneit from knowledge sharing and quality improvement, as part of Fundashon Mariadal's commitment to the Quality Framework of Nursing Home Care (*Kwaliteitskader Verpleeghuiszorg*).

- A provider of gynecological services began working together with SEHCF on St Eustatius in November 2022.
- RIVM is involved in the implementation of the International Health Regulations, including infectious disease surveillance. It is part of the Dutch Caribbean Public Health Expertise Network and started with the establishment of a cancer registration for the BES islands in 2023. RIVM is also active in implementing selected cancer screening programs.

6.2 Future developments

VWS, in a letter from the State Secretary in September 2022, declared that the next stage of health system development for the BES islands is to achieve a level of services equivalent to the European Netherlands, concerning both the quality and the scope of the healthcare services on offer (VWS, 2022b). Defining "equivalent" (*gelijkwaardig*) is intended to result from active dialogue with local stakeholders, providers, the public entities and others. The principle of "appropriate care" (*passende zorg*) as it applies in the European Netherlands should also apply, meaning working to prevent more expensive care, moving care closer to people's homes and replacing care by other means, such as eHealth.

VWS also intends to focus on the following areas:

- Further construction and development of healthcare facilities based on standards of the European Netherlands;
- Empowerment of local organizations on the BES islands themselves for sustainable impact;
- Integration of care, with cooperation across public entities, providers, ZJCN and the residents themselves to ensure a consistency between various services and forms of care;
- Further promotion and development of the Dutch Caribbean Hospital Alliance;
- Development of a specific and fitting quality framework for healthcare on the BES islands, potentially working together with stakeholders to create something similar to the Healthcare Governance Code (*Governancecode Zorg*) in the European Netherlands;
- Work to guarantee the availability of service provision, especially secondary care. For referrals abroad, a philosophy of "as close as possible and further away if necessary" (*zo dichtbij mogelijk als kan en verder weg als het moet*) should be considered;
- Coordination and knowledge exchange with the other constituent countries of the Kingdom;
- Encourage further health research;
- Working with partners to implement the Social Support Act (*Wmo*). Here, ZJCN will also soon be responsible for organizing tailor-made provisions for supporting people that are not self-reliant on their own, including day care, respite care and domestic help;
- Monitoring the progress and trends of chronic diseases; and
- Continued action on areas of prevention, with special focus on diabetes, obesity and healthy diets, as well as mental health, smoking, alcohol consumption and sexual health. Additionally, in that regard, to shift public health budgets away from the special and free funding allowances and toward more consistent, structural and predictable funding.

An area of focus among all stakeholders for future development of health services is the potential of digital solutions and information systems to enable digital exchange between all involved parties (i.e. between residents and ZJCN, residents and providers, providers and ZJCN, and among providers). A project to digitize patient records and promote data exchange between providers is underway as of June 2024 (D&A, 2024). This will enable making better use of current staff, who could rely on new systems and frameworks to work more efficiently and thus overcoming the existing limitations in the current systems. Furthermore, the introduction of citizen service numbers (BSNs) or digital identification possibilities such as DigiD, planned for mid-2025, provide residents with secure

possibilities to digitally interact with the health system (nldigitalgovernment.nl, 2023; BES-reporter.com, 2023).

There is also focus on building up the workforce pipelines on the islands themselves. This involves improving (process-based) entry into the labor market, where a greater focus on making medical education available and accessible for residents, as well as opportunities for further education in close cooperation with healthcare institutions and governments of the CAS Islands and the European Netherlands, is necessary. For the existing workforce, there is also a desire to clarify and further strengthen the role of GPs to provide broader care and support in primary settings and thus avoid the need for more intensive specialized care. Specialized nurses (*gespecialiseerd verpleegkundigen*) should also be empowered to ensure better care continuity and quality in situations where both GPs and specialists may frequently come and go (from the patient's perspective). Projects like DuCaPHEN that promote coordination among professionals across the Caribbean part of the Kingdom will help improve regional cooperation and strategies for health improvement.

For determining health research programming, ZonMw's foresight study for health research programming in the Caribbean part of the Kingdom was published in November 2023. The results from the study will be used to determine how ZonMw can deploy their programming to contribute to identifying health needs and planning for good health on the islands (ZonMw, 2024). Public or wider availability of data on financing, workforce, service utilization and health status can also help improve future research efforts on the functioning of the health system in general as well as understanding the performance of its key actors (i.e. providers and ZJCN). Furthermore, intersectoral approaches with other Dutch ministries (such as SZW or OCW) on policy development and implementation will help boost a Health in All policies approach to governance.

The increasing challenges faced by the BES islands in the era of climate change present another focal point. Stronger hurricanes, rising sea levels, different levels of rainfall and varying heat patterns can all impact the lives of residents and the functioning of the health system. The Royal Netherlands Meteorological Institute (*Koninklijk Nederlands Meteorologisch Instituut*) published possible climate scenarios for the BES islands in 2023 to kick-off conversations with relevant stakeholders about sustainable practices and build awareness of the growing threats associated with climate events (DCNA, 2023). The Dutch Caribbean Nature Alliance (DCNA) is also involved in these efforts. Additionally, environmentally, sustainable agriculture on the islands, with the interest of securing healthy on-island food may be further developed.

The governance relationship between the public entities and the European Netherlands, whereby RCN and the Kingdom Representative support the carrying out of both state and island-specific tasks was re-examined in early 2024. Each BES island will acquire their own permanent representative in The Hague and will be involved early in policy and legislative development. An agreement between BZK and the BES islands also committed to continue using the comply-or-explain approach to make customization in the context of the islands possible. Furthermore, changes were agreed on to the Public Entities Bonaire, St Eustatius and Saba Act (*Wet openbare lichamen Bonaire, St Eustatius en Saba*) and the Public Entities Bonaire, St Eustatius and Saba Finances Act (*Wet financiën openbare lichamen Bonaire, Sint Eustatius en Saba*) to improve administrative and financial relations between the public entities and the European Netherlands (overheid.nl, 2023a; rijksoverheid.nl, 2024a). The Kingdom Representative position will be dismantled and the duties taken over by the public entities and relevant ministries in The Hague. The number of island council members and island commissioners on the BES islands are also planned to increase in 2027 and again for Bonaire in 2031, although at the time of writing the draft legislation is still working its way through the Dutch Parliament (overheid.nl, 2023a). The framework to supervise the financial management of the public entities will also be reformed. The revisions to these fundamental laws followed a report by the

Council for Public Administration (*Raad voor het Openbaar Bestuur*) which identified shortcomings in the governance and financial frameworks of the public entities (Raad voor het Openbaar Bestuur, 2024).

Finally, as the governance relationship of the BES islands are a political construct, discussions that bring in the capacities of the CAS islands and other regional partners (as being done in the DCHA, for example) are key to further developing policies and plans for the health system that are more efficient and responsive. For the BES islands particularly, capacities should be guaranteed so that the public entities can institute their own regulations and taxes on items like tobacco products and alcohol.

7. Assessment of the health system

- Since 2010, all registered residents on the BES islands are covered through the mandatory, universal health insurance scheme for a range of benefits comparable to the European Netherlands (but with no deductibles and few copayments for covered services, an intentional policy due to poverty and income levels).
- The development efforts on the BES islands have primarily aimed at (1) raising the standard of care to an acceptable level and (2) adopting suitable health policy developments from the European Netherlands. This has resulted in large levels of investment from The Hague to scale up providers' capacities on the BES islands themselves.
- Initially, Dutch laws and regulations were applied to the BES islands only when deemed necessary (legislative restraint), but since 2019, there has been a shift towards a "comply-or-explain" policy, indicating a more inclusive approach to legislation and policy application.
- The islands' remoteness poses challenges in accessing care, including travel distances, opening hours, waiting times, and provider choice. Logistics for receiving off-island care, such as transportation and accommodation for treatments, are substantial and require coordination among the main parties involved: ZJCN, providers and transportation companies.
- Recruiting and retaining health professionals poses an ever-present challenge to operating the medical centers on St Eustatius and Saba. Bonaire has better access to health workers through agreements with institutions in the European Netherlands and its own training initiatives but also faces constraints (including language barriers and primary care accessibility). The application of the Healthcare Professionals Act (Wet BIG) also poses a challenge to certain staff working for longer time periods on the BES islands.
- The extent of OOP payments on health or financial hardship (defined as OOP payments exceeding a certain percentage of household income) faced by residents of the BES islands is unknown, limiting the ability to assess the adequacy of financial protection on the islands. There are no options to purchase supplementary health insurance packages to cover services not included in the public benefits package.
- Digitalization and data integration are seen as vital for evidence-informed governance. The currently fragmented and incomplete collection of data on health and healthcare poses significant challenges for health system performance analysis and effective policymaking. Further dissemination of IGJ (the Health Care and Youth Inspectorate) and the quality reports of providers offer valuable insights, but improved capacities to collect and analyze data on unmet medical and dental care needs from population-based surveys could further help understand barriers and support claims about healthcare access issues on the BES islands.
- There is a need for more detailed research to help guide future health policies and to benchmark against the European Netherlands (i.e. comparing to population health reports conducted in the European Netherlands and align efforts with those municipalities sharing similar challenges). Comparisons with other islands in the region also represent an opportunity to better target limited research capacities and create opportunities for more collaboration and to gauge the effectiveness of prevention efforts and other health system interventions.
- Assessing allocative and technical efficiency in the BES health system faces challenges due to missing standardized data collection and analyses, though progress has been made in the large reductions of off-island referrals since the early years after the 10/10/10 reforms. While practices such as the promotion of generic medicines align with efforts to enhance efficiency, the inherent constraints of small populations, geographical isolation, and healthcare

professional shortages contribute to inefficiencies, including increased healthcare delivery costs and resource allocation challenges.

7.1 Health system governance

Since the dissolution of the Netherlands Antilles on 10/10/10 and the decision to create the legal framework of the BES islands as the Caribbean Netherlands, VWS has played the central role in health system governance and has a notably different role than in the European Netherlands (see Section 2.2). On the BES islands, VWS via ZJCN is responsible for formulating legislation, public financing, policy development and also the execution of these policies. As the system from the European Netherlands could not be copied and pasted in the Caribbean due to the unique context-specific challenges on the islands, such as their geographical setting, small population sizes, limited provider network, and absence of insurance companies, VWS introduced a system with limited stakeholders and a centrally funded, comprehensive insurance system with a broad benefits package, which necessitates contracting with providers on- and off-island. The focus on legislation and policymaking was also one of so-called legislative restraint, meaning that Dutch laws and regulations were in principle not applied to BES islands unless there were good reasons to do so. However, a shift towards the policy of "comply-or-explain" gradually began in 2019 (i.e. all policy and resulting legislation should apply to the BES islands, unless there are reasons not to do so, such as capacity or feasibility concerns).

Many of the developments on the BES islands have focused on incrementally (1) bringing the standard of care on the islands up to an acceptable point[7] and (2) adopting and implementing health policy developments from the European Netherlands that are appropriate for the BES islands. Education campaigns have also played a major role in the new health system since 10/10/10, and residents can access information on insurance entitlements in several languages on ZJCN's website (RCN, 2023).

ZJCN, as a department within VWS, serves as both the steward and the insurer in the BES islands, fulfilling multiple roles simultaneously. In contrast, the health system in the European Netherlands maintains a strict separation between these roles, where combining them could be viewed as conflicting given the nature of the health insurance system based on managed competition. However, in an integrated, centrally funded health system, like the one on the BES islands, it is common for a single entity to perform both functions.

Although stakeholders involved in the governance of the health system are limited and providers are monopolists on their respective islands, there has been movement to increase the roles of other Dutch and regional Caribbean organizations and the public entities themselves. This includes the role of RIVM, which facilitates the assessment, interpretation and dissemination of public health data via the public health reports each island is obliged to prepare every four years and is in line with the long-term ambition of the Dutch Government, which is to better ensure that the BES islands are embedded in Dutch systems and structures (RCN, 2019). ZonMw's foresight study for health research programming will also help to inform the health research agenda moving forward. Greater

[7] The focus beginning in 2010 was on building a new and accessible universal health insurance system for all legal residents and on improving and expanding health facilities and the provision and quality of services by (1) GPs, (2) medical specialists (on the islands themselves or through cross-border arrangements), (3) nursing home facilities, home care and certain aspects of youth care, (4) pharmaceutical care and (5) mental health services.

stakeholder involvement can help improve overall health system transparency and accountability, making the organization and definitions of responsibilities clear to the public.

The essential foundation for governance is the systematic collection and analysis of data on health and healthcare. With no set structure or overarching plan for the design and adoption of evidence-informed policymaking on the BES islands, this is still fragmented and incomplete and results in limited availability of detailed health system performance data compared to the European Netherlands. This situation is complicated by the involvement of various providers that operate outside of Dutch jurisdiction. The health data landscape currently includes providers' quality reports, including on complaints (SEHCF, 2020). However, these quality reports are not conducted according to a unified template or necessary data points across providers. Nor are they always published for wider (public) viewing. IGJ also publishes reports of its visits and inspections regarding the quality and care on the BES islands (IGJ, n.d.) but has no jurisdiction to visit and inspect providers outside of the Netherlands, even though very substantial numbers of patients rely on care outside the European or Caribbean Netherlands. The current status of figitalization and integration of data systems across providers and ZJCN as the insurer does not facilitate evidence-informed health system governance in serving as a useful resource in discussions about tackling rising health challenges on the islands (backlogs, care volumes, etc.).

7.2 Accessibility

Access to health services is shaped by financial, geographical, cultural and supply-related factors. These factors impact on the extent to which there may be problems or barriers in accessing health services along the three main categories of population coverage, the benefits package and the availability of services.

All residents of the BES islands are entitled to and are covered by health insurance, according to the BES Healthcare Insurance Decree (*Besluit zorgverzekering BES*), which is comparable to what is available in the European Netherlands. In order to qualify for insurance under ZJCN, an individual must hold a resident's identification card (known locally as a *sedula*). The registration process for a *sedula* is done at the General Register Office (*Burgerzaken*). There are no grounds to reject an individual for insurance if they have a *sedula* and only those on the BES islands who are not officially registered to live there, such as tourists or undocumented persons, are not covered (although a new policy is under development for undocumented residents).

Benefits are the same across the population, except for dental care, where full coverage has been limited to minors since 2015. The 12 general entitlements in the benefits package are listed in the BES Healthcare Insurance Decree and include GP care and primary psychological care, specialist care, hospital care, paramedical care, (some) dental care, pharmaceutical care, auxiliary care, obstetric care, patient transport, maternity care, LTC and antenatal care. The Raz BES Regulation specifies what exactly under these 12 general entitlements is covered and to what extent, and is subject to alteration twice a year by the State Secretary of VWS. A key distinction from the European Netherlands is the lack of supplementary insurance options, particularly for dental care (which likely restricts access to these services). But notably, in the BES islands health system there are no deductibles and few copayments for covered services (see Section 7.4).

The small, remote nature of the islands impacts travel distance to care, opening hours, waiting times and choice of provider and may challenge access. For example, Statians and Sabans referred to SMMC (the closest option for many types of care) face all sorts of logistical challenges: from airport transportation to daily monetary allowances to hotel bookings for longer stays. A previous step in the process to access services on SMMC, the approval of referrals, was automated beginning in

November 2022. In the cases that SMMC specialists come to St Eustatius or Saba (or a dentist comes to Saba), there is a high demand for appointments. The challenges faced in recruiting and retaining health professionals on the islands also impacts on operating hours of the medical centres on the two smaller islands. Bonaire, through the *jumelage* agreement and Fundashion Mariadal Academy, has wider access to health personnel, although primary care capacities there have been strained in recent years, and physicians (mainly specialists) visiting from the European Netherlands have to be wary of requirements to maintain their *BIG* registrations. Additionally, on Bonaire, specialists that come over primarily speak Dutch and English, while many residents prefer or need their medical consultations and requests conducted in Papiamentu or Spanish. As health workforce availability is a challenge throughout the region, further regional collaboration with non-BES providers could boost accessibility to services.

Data on unmet needs for medical care (e.g. due to distance, financial reasons or waiting times) that is routinely available in the European Netherlands and for other European countries from population-based surveys is not yet collected on the BES islands. Collection and dissemination of data on unmet needs (such as regarding waiting lists for services) provide important insights on accessibility problems to health care for people living on the BES islands and could add legitimacy to claims from different groups and individuals regarding the access problems they encounter in general and, particularly, in accessing facilities off island (see also Box 5.3). Within the Caribbean part of the Kingdom, the collection of such data has already been undertaken in Curaçao in 2013 and 2017 survey rounds.

7.3 Financial protection

Financial protection means ensuring people do not face financial hardship when they use health services. In terms of population coverage, all registered residents are covered by ZJCN and so there are no gaps in universality (except for undocumented inhabitants, see above). The health financing system on the BES islands includes protection mechanisms so people with lower incomes are exempted from paying the earmarked health contribution while those with higher incomes have the contribution capped at US$ 180 annually (see section 3.3.2 Collection).

While the range of benefits covered is very similar to that of the European Netherlands, BES island residents face very limited cost sharing. Those insured by ZJCN do not have to pay a deductible, whereas insured adults in the European Netherlands face an annual mandatory deductible of at least EUR 385 (with some exceptions). On the BES islands, there are no private insurers providing supplementary options to top up on what is listed in the Raz BES regulation for those insured by ZJCN (an option that exists in the European Netherlands). BES island residents mostly pay OOP for dental care, orthopedic shoes (ZJCN covers the first US$ 50), glasses (covered up to US$ 170 annually) and the first 20 sessions of physiotherapy for some patients (see Raz BES Article 1.4.2).

Furthermore, OOPs may occur when BES residents go out of network (and off island) for care, including in cases where their Article 10.4 application has been denied. In addition, also for approved 10.4 requests, there is still some personal cost that ZJCN does not cover (see Section 3.3.1). However, no data is collected or published that outlines the true extent of OOP payments for BES islands residents.

Consequently, financial hardship due to the use of health services, which is often measured as OOPs above a certain percentage of household capacity to pay (called catastrophic expenditure) is unknown; this is routinely available for the European Netherlands. Further data on OOPs and financial hardship related to spending on health are required to draw firm conclusions about the adequacy of financial protection on the BES islands.

7.4 Health care quality

Standard indicators for quality of primary care, such as avoidable hospital admission rates for asthma, chronic obstructive pulmonary disease, congestive heart failure, hypertension, diabetes and diabetes-related complications are not available for the BES islands. For Bonaire, the only island where GPs work in private practices and are not directly employed by a medical center, new initiatives like Primary Care Caribbean (PCC) have been developed to promote best practices and quality in terms of adherence to Dutch standards of care and clinical pathways (i.e. joint collaboration with ZJCN and GPs in the European Netherlands set up performance indicators together). Furthermore, the use of the triage role in GP practices on Bonaire (as in the European Netherlands for primary care) has recently been adopted with the aim of improving the functionality of the overall health system, despite its initial unpopularity with residents.

On St Eustatius and Saba, GPs and their employers in the medical centers have to organize continuing education on quality improvement themselves (also based on Dutch standards of care, with some limited support from PCC). The GP triage system has also been introduced in SEHCF and Saba Cares (see Section 5.2).

Supervision of healthcare quality within care facilities that operate within the European Netherlands or on the BES islands is mainly organized through IGJ and their work provides the framework for collecting, analyzing and presenting selected data in their publicly available reports (primarily in the Dutch language). This includes interviews with key staff and reflections on the implementation of measures that were flagged on their previous visits, providing a method to track progress on quality improvement. However, no data is readily available on in-hospital mortality rates (or deaths within 30 days of admission) for admissions following acute myocardial infarction, hemorrhagic stroke and ischemic stroke, procedural or postoperative complications, nor for cancer survival rates for selected cancers. This is further complicated by the fact that the BES health system makes use of hospitals outside the jurisdiction of the Netherlands (both the constituent country and the Kingdom at large), which would require an international effort to develop the data for these indicators (and also complicates processes to improve care quality). While residents of all three islands can be referred to hospitals across the region and beyond, the DCHA, established in 2021, seeks to create a Dutch Caribbean partnership on providing high quality care, locally and collaboratively within the Kingdom.

Regular collection and publication of standardized data would facilitate the ability to draw definitive conclusions about the quality of healthcare, to better engage in priority settings processes, and to compare with the standards of the European Netherlands, and/or within the region. Data management has become more important in healthcare and for policymakers. As the main providers on the BES islands have quality and complaints policies, the quality of data, as well as protection and management of it, is improving and is becoming more reliable.

7.5 Health system outcomes

It is difficult to disentangle the contribution that the health system (and public health versus curative care) makes to improving population health on the BES islands, especially in the absence of certain indicators. However, there are policies for which evidence from other settings exist that show a positive impact on health outcomes.

Since 2010, there has been more involvement in public health from both VWS and RIVM on the BES islands; the governance changes on 10/10/10 brought new attention and introduced guidelines and a formalization of procedures, boosting quality. Furthermore, there are the free and special funding allowances from VWS that go toward vaccination and screening programs. Structural financial

support has also allowed the public health departments to sustainably expand the public health dedicated workforce and services provided.

On the other hand, there continues to be limited data available, and the socioeconomic factors facing the BES islands (poverty, food accessibility and security, obesity and alcohol consumption, etc.) necessitate more attention to support healthy lifestyles. Recent examples of efforts to make a health life more attainable for everyone include a traffic ordinance to mandate seatbelt usage and a new ordinance to protect youth from tobacco products on Saba. Regarding tobacco control policies on Saba, there was previously no related legislation, and after 10/10/10 the European Netherlands did not explicitly develop or enforce national tobacco policies on the BES islands, leaving it to the Public Entity Saba to use their limited legal capacities to draft new rules.

Overall, more research and evaluations are needed to fully understand what difference public health interventions are making. Challenges do also remain in recruiting enough public health specialists and to train future, local public health workers. Further cooperation between all islands in the Caribbean part of the Kingdom (such as DuCaPHEN's focus on communicable disease control and pandemic preparedness) can help to cover all fields of public health without each island unnecessarily duplicating specialties for which limited personnel are available, while within the BES islands, the national government in The Hague can provide further support in the areas of legislation and taxation systems that are conducive to healthy lifestyles.

Therefore, there is a need on the BES islands to not only draw comparisons on the public health initiatives and the health system outcomes between the islands, but also to begin to draw these comparisons to the status and outcomes in the European Netherlands, non-Dutch neighboring islands facing similar challenges and the wider Caribbean region. For instance, each island's public health department is obliged to produce a public health report every four years, and they work individually with RIVM to produce these reports. In recent years, this has been facilitated by the introduction of health questions in the CBS Omnibus Survey. However, there is not yet a BES-wide report summarizing the findings from the three individual islands, nor is there a report that makes comparisons with municipalities in the European Netherlands, the CAS islands, or other nearby Caribbean islands with similar profiles. Doing so would represent a way to make the situation on the BES islands more tangible and the exercise can be used to identify challenges and new policies to address them.

To assess whether improvements in population health can be attributed to the health system, important data is lacking e.g. on causes of death and prevalence of morbidities, but also on preventable and amenable mortality[8] which can really capture the health system's ability to prevent deaths. According to the survey results available, people on the BES islands do generally perceive their health as good and life expectancy has been rising, which could also suggest a positive impact of the health system, even in light of serious concerns about non-communicable diseases and lifestyle-related diseases (see Section 1.4).

[8] Preventable mortality is defined as death that can be mainly avoided through public health and primary prevention interventions. Amenable mortality is defined as death that can be mainly avoided through health care interventions, including screening and treatment.

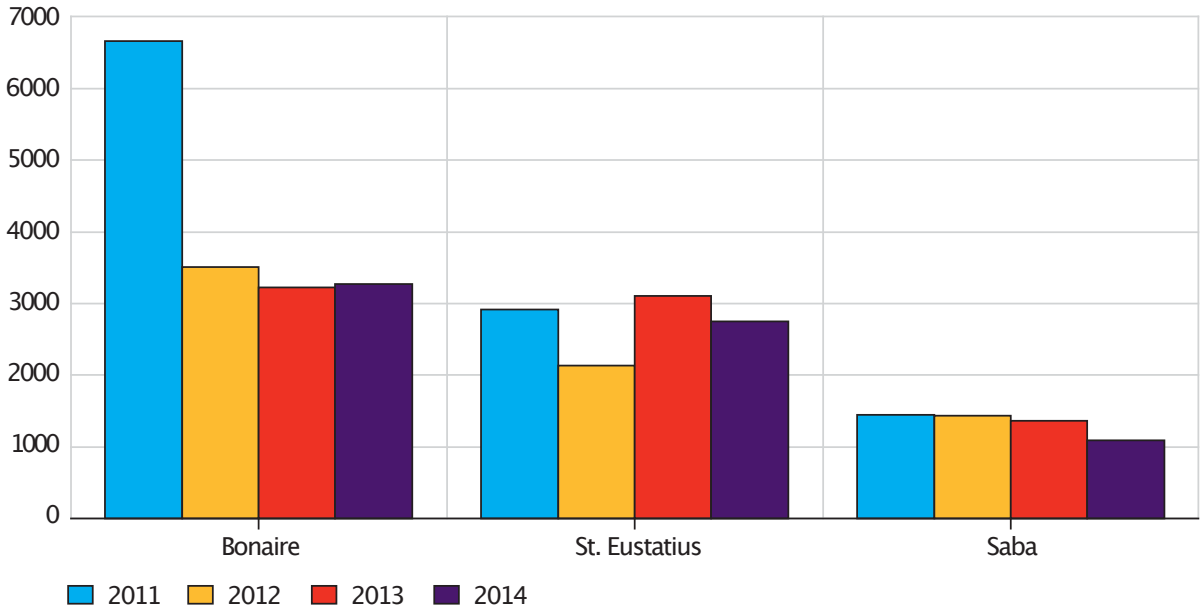
7.6 Health system efficiency

7.6.1 Allocative efficiency

Allocative efficiency indicates the extent to which limited funds are directed towards purchasing an appropriate mix of health services or interventions that maximize health improvements. Often this is established by comparing standardized data and their longitudinal trends across main spending categories (e.g. inpatient, outpatient, long term care, prevention) to other comparable countries, to make under- or overspending visible. This data is not available in such a format for the BES islands. Another method is to look at the use and quality of risk-adjusted resource allocation formulae, which makes sense in large countries where money must be fairly allocated across different regions or insurers, yet in a small single payer system covering a small population and limited provider landscape as in the BES islands such a mechanism would make little sense.

In practice, ZJCN works directly and bilaterally with providers when it comes to their formal contracting. In addition, larger requests for BES islands providers (mostly loans for new construction) are also discussed and agreed bilaterally. Such a system, in theory, could ensure a good level of allocative efficiency, provided funds are adequate. The increases in health spending to levels comparable with the European Netherlands, after a period of underfunding (see Section 3.1), suggests sufficient funding and policy prioritization. However, deducting the logistical costs of off-island referrals (e.g., hotel, flights, per diem allowances) results in per capita spending on the BES islands (US$ 5 895) being lower than in the European Netherlands (US$ 6 729 in 2023). Drawing conclusions from this is challenging because these levels have not been adjusted for purchasing power parity, which varies between the BES islands and the European Netherlands. The large build-up of Fundashon Mariadal on Bonaire is a notable achievement for improved efficiency, as increased capacity (helped by the *jumelage* agreement) has led to a huge reduction in off-island transfers from Bonaire (reducing referral spending), which were nearly at 7 000 in 2011 (see Fig. 7.1) and decreased to 2 006 in 2023.

Fig. 7.1 Number of off-island referrals in the initial years after 10/10/10



Source: SCP (2015).

The benefit of the small scale of the health system is that a full assessment of whether the current offer of services and coverage match the population's needs could be feasible, provided that data on service utilization, unmet needs, health outcomes and demographic trends is available, which would necessitate involving main stakeholders (including patients) and scientific partners to carry out such assessments.

7.6.2 Technical efficiency

Technical efficiency in the health system of the BES islands is a critical factor in ensuring that health services are delivered in the most cost-effective manner. This concept relates to achieving the highest possible output from the minimum amount of inputs or, conversely, minimizing inputs used for a given level of output. Unfortunately, it is hard to draw firm conclusions about the technical efficiency of the BES health system without information on topics such as hospital care trends (average length of stay, day care surgeries), or studies evaluating reforms that may have led to efficiency gains. That said, there have been policies enacted, which could have contributed to technical efficiency, most notably in pharmaceuticals.

In agreement with pharmaceutical practice in the European Netherlands, the prescription and use of generic medicines is generally promoted on the BES islands. On Bonaire, Fundashon Mariadal, as the key health foundation, plays an important role in pharmaceutical stewardship. Fundashon Mariadal currently has two working groups that are actively involved with the promotion of rational use of medicines. The medicines working group, for instance, is responsible for the pharmaceutical formularium: an overview of the availability of (essential) medication per specific medical indications and the pharmaceutical companies from which these medicines are procured. This formularium is maintained in agreement with the pharmacies and ZJCN – as sole provider of health insurance on Bonaire. Another working group focusses on antibiotic stewardship and infection prevention. Formally, ZJCN – as the policy-maker – is responsible for pharmaceutical policies on Bonaire.

Saba Cares and Saba Wellness Pharmacy attempt to limit waste by promoting rational prescribing and limiting storage of medications. The Dutch policy regarding generic medicines is being followed. Pharmaceuticals available on the BES island undergo the same authorization, price and quality controls as well as pharmacoeconomic evaluations as those in the European Netherlands. In fact, virtually all medicines on the islands are directly imported from the European Netherlands through the Brocacef Group, the largest provider of pharmaceuticals for the BES islands.

There are also some challenges affecting technical efficiency negatively. The small population sizes of the BES islands inherently limit their ability to support a full spectrum of healthcare services on-island, making it economically harder to maintain comprehensive healthcare facilities. Indeed, the economic viability of healthcare services is closely tied to scale; without a sufficient patient base, the fixed costs of specialized equipment, facilities, and skilled personnel become disproportionately high, leading to an inefficient allocation of healthcare resources. In addition, the unique geographical context of the BES islands and their reliance on off-island healthcare providers also results in an unavoidable degree of technical inefficiency. The dependence on off-island services not only introduces logistical complexities and increases healthcare delivery costs but also leads to longer waiting times for care and potential delays in treatment, leading to costlier treatments. The necessity to arrange transportation, accommodation, and manage the logistics of receiving care off-island adds to the overall expense and administrative burden, diverting resources away from direct patient care.

8. Conclusions

Since 10 October 2010, the health system in the Caribbean Netherlands (the BES islands of Bonaire, St Eustatius and Saba) has been stewarded by the Dutch Ministry for Health, Welfare and Sport (VWS), as anchored in several pieces of legislation, regulations and decrees. The Department of Care and Youth Caribbean Netherlands (ZJCN) within VWS oversees budgeting and regulations from The Hague, while ZJCN's team on Bonaire in the Health Insurance Office concludes contracts with providers and administers the mandatory, universal health insurance scheme and processes expenses to providers. The initial focus of bringing health facilities and care up to an "acceptable" level within the Netherlands (one of four constituent countries within the Kingdom of the Netherlands), given the specific circumstances of the islands, guided the introduction of health insurance for residents. Since then, the governments (public entities) of the individual islands have increasingly received more responsibility in the health sector, for example with their public health departments. The aim for the coming years is to achieve a level of care that is "equivalent" to that of the European Netherlands.

Indicators such as life expectancy show steady improvements and that residents of the BES islands can expect to live longer than those in the European Netherlands and the EU on average. However, behavioral lifestyle factors such as low fruit consumption, low(er) levels of physical activity, alcohol consumption and obesity pose threats to health outcomes. Poverty levels on the islands are also high, and that creates social challenges and problems for residents that do go beyond just the health system. However, gaps in the current data landscape on population health need to be addressed in order to obtain a more comprehensive picture. With a fuller understanding of the mortality and morbidity profiles of residents, a needs-based approach to delivering health services can be implemented. Furthermore, the population on the BES islands, especially Bonaire, has been growing much faster than in the European Netherlands, particularly among residents born in the European Netherlands. Additionally, the population is ageing. These two trends will impact the long-term sustainability of the BES health system.

Due to the unique context on the BES islands (i.e. geography, population size, limited provider network, absence of insurers), the health system of the European Netherlands was not implemented. Instead, VWS introduced a comprehensive insurance scheme with limited stakeholders and a broad, centrally-financed benefits package, comparable to that of the European Netherlands. Its remoteness implies that the system not only contracts providers on the BES islands but also must contract providers off-island, many outside Dutch jurisdiction. While some European Dutch legal structures do not automatically apply to the BES islands, many legal frameworks on the BES islands are adapted from there. There are, however, some differences in patient rights and the possibility of using digital tools for health management and health records.

Health spending per capita on the BES islands was just below the amount spent in the European Netherlands in 2022. Within the centrally-financed health system, a significant share of health spending is dedicated to the logistical costs of providing care off-island (air fares (including charters), accommodation and ground transportation costs, per diem allowances, etc.). Deducting these logistical expenses, per capita health spending on the BES islands has been considerably below that of the European Netherlands since 2020. Financial protection for care within the public system is high, as there are no deductibles and very limited cost sharing. However, no data on of out-of-pocket payments for services (i.e. dental care, physiotherapy) beyond what is covered is available, and there are no options to purchase voluntary, supplemental coverage, unlike in the European Netherlands. Residents can apply to have (initially) non-covered second opinions covered under Article 10.4 of the BES Healthcare Insurance Decree, though applications must meet a specific set of given criteria.

Bonaire has a hospital (Fundashon Mariadal) that includes various wards, surgical theatres, and a hemodialysis department. Bonaire also has six GP-led clinics and one after-hours clinic. On St Eustatius and Saba, the St Eustatius Health Care Foundation (SEHCF) and Saba Cares function as the only healthcare providers (directly employing GPs), respectively, and mostly provide primary care with limited capacities for acute care. Emergency, rehabilitation, long-term, mental, palliative and dental care are provided to varying extents on the individual islands.

Since 2010, distribution and availability of medical facilities and equipment has been expanded, but is also subject to rationalization based on strategic regional planning. Health information systems for clinical functions are used, but fragmentation exists across providers and patient communication systems. Like most health systems globally, shortages in health workforce are a major challenge for the BES islands. Limited local training options, plus lower levels of qualified and available professionals necessitate recruitment from abroad. Long-term retention on the smaller islands of St Eustatius and Saba is a large concern, while Bonaire is faced with guaranteeing sufficient personnel to keep pace with population growth. The role of informal caregivers is also increasing in importance.

Medical referrals off-island are to providers contracted by ZJCN; patients are referred via their GP (the entry point to the health system, along with nurses) or specialist. Here, the policy of “close if possible, further away if necessary” (*dichtbij als het kan, verder weg als het moet*) is used, i.e. care is first arranged nearby, such as on other Dutch Caribbean islands that are their own constituent countries (Aruba, Curaçao or St Maarten), before exploring providers in Colombia or the European Netherlands. Saba and St. Eustatius rely more on off-island referrals compared to Bonaire because they have a much more limited range of services available. In 2023, more than 90% of referrals from St Eustatius and Saba were to nearby St Maarten (the top reason for referral was nephrology), while more than 80% of referrals from Bonaire went to Aruba and Curaçao (first and foremost radiology). On average, 5 658 patients were referred off-island between 2017 and 2023, though there was a large reduction during 2020 and 2021 reflecting the impact of the COVID-19 pandemic. There are also challenges in cross-border data exchange.

Public health responsibilities on the BES islands are shared between the national level and the public entities on the islands, with roles for organizations also active in the European Netherlands. Key initiatives are in line with European Dutch guidelines and include disease prevention, vaccinations, and promoting healthy lifestyles. Increasingly, the public health agenda is tailored to local context, such as accessibility and affordability of health foods, as well as avoiding sedentary lifestyles. As the population both increases and ages on the BES islands, further health research and needs assessments can inform prevention, education and collaboration among stakeholders. Here, not only comparisons on the public health initiatives and the health system outcomes between the BES islands play a role, but also to begin to draw these comparisons to the status and outcomes in the European Netherlands as well as in the wider Caribbean region facing similar problems.

The reform agenda is shifting to consolidate and extend the improvements in capacity and service delivery achieved since 2010. The early focus on the introduction of the mandatory, universal health insurance scheme, improving healthcare accessibility and quality led to investments in island-based healthcare providers, strengthening primary care, equipping and enhancing Fundashon Mariadal (including bringing in medical specialists via the *jumelage* agreement and greatly reducing off-island referrals since 2010) on Bonaire to treat more secondary and tertiary cases. Mental healthcare has also been strengthened since 2012 via Mental Health Caribbean, where work is ongoing to develop effective care on the islands that complements what is already in place and to maintain strong cooperation between care facilities and social developments. Furthermore, harmonizing regulations with those of the European Netherlands but adapting them to local needs (via the “comply-or-explain” principle) will guide the next development stage that aims to achieve healthcare service

levels “comparable” or “equivalent” to that of the European Netherlands, with a focus on facility development, empowering local entities, and enhancing service quality. Here, the agreed-upon definition “equivalent” (*gelijkwaardig*) is to result from active dialogue with local stakeholders, providers, the public entities and others.

The capacity to guarantee the full spectrum of facilities and services on the BES islands is challenging on efficiency grounds, though new initiatives such as the Dutch Caribbean Hospital Alliance should help facilitate regional capacity planning and provision. For future planning, a strong data landscape can inform policymaking with evidence. For example, data on accessibility (such as unmet needs for medical care and OOPs) as well as on healthcare quality (avoidable admissions; in-hospital mortality) are currently not collected, nor are reliable cause of death statistics. Collecting such data is complicated by the involvement of various providers that operate outside of Dutch jurisdiction and would require an international effort. Quality reports from providers, public health reports from the public health departments, information on complaint procedures and further analysis of when and why residents pay out-of-pocket all represent pillars of a potential broader strategy for health research, increased transparency and a comprehensive health system performance assessment.

9. Appendices

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9.2 Useful websites

Ministry of Health, Welfare and Sport	https://www.government.nl/ministries/ministry-of-health-welfare-and-sport
Department of Care and Youth Caribbean Netherlands	https://english.rijksdienstcn.com/care--youth
Statistics Netherlands (StatLine)	https://opendata.cbs.nl/#/CBS/en/
National Institute for Public Health and the Environment	https://www.rivm.nl/en
National Office for the Caribbean Netherlands	https://english.rijksdienstcn.com/
Public Entity Bonaire	https://bonairegov.com/
Public Entity St Eustatius	https://www.statiagovernment.com/
Public Entity Saba	https://www.sabagov.com/

9.3 HiT methodology and production process

HiTs are produced by country experts in collaboration with the Observatory's research directors and staff. They are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The latest version of the template (2019) is available on the Observatory website at https://eurohealthobservatory.who.int/publications/i/health-systems-in-transition-template-for-authors.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents, to published literature. Furthermore, international data sources may be incorporated, such as those of the OECD and the World Bank. The OECD Health Data contain over 1200 indicators for the 34 OECD countries. Data are drawn from information collected by national statistical bureaus and health ministries. The World Bank provides World Development Indicators, which also rely on official sources.

In addition to the information and data provided by the country experts, the Observatory supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the European Health for All database. The Health for All database contains more than 600 indicators defined by the WHO Regional Office for Europe for the purpose of monitoring Health in All Policies in Europe. It is updated for distribution twice a year from various sources, relying largely upon official figures provided by governments, as well as health statistics collected by the technical units of the WHO Regional Office for Europe. The standard Health for All data have been officially approved by national governments.

HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

A typical HiT consists of nine chapters.

1. Introduction: outlines the broader context of the health system, including geography and sociodemography, economic and political context, and population health.

2. Organization and governance: provides an overview of how the health system in the country is organized, governed, planned and regulated, as well as the historical background of the system; outlines the main actors and their decision-making powers; and describes the level of patient empowerment in the areas of information, choice, rights and cross-border health care.

3. Financing: provides information on the level of expenditure and the distribution of health spending across different service areas, sources of revenue, how resources are pooled and allocated, who is covered, what benefits are covered, the extent of user charges and other out-of-pocket payments, voluntary health insurance and how providers and health workers are paid.

4. Physical and human resources: deals with the planning and distribution of capital stock and investments, infrastructure and medical equipment; the context in which IT systems operate; and human resource input into the health system, including information on workforce trends, professional mobility, training and career paths.

5. Provision of services: concentrates on the organization and delivery of services and patient flows, addressing public health, primary care, secondary and tertiary care, day care, emergency care,

pharmaceutical care, rehabilitation, long-term care, services for informal carers, palliative care, mental health care and dental care.

6. Principal health reforms: reviews reforms, policies and organizational changes; and provides an overview of future developments.

7. Assessment of the health system: provides an assessment of systems for monitoring health system performance, the impact of the health system on population health, access to health services, financial protection, health system efficiency, health care quality and safety, and transparency and accountability.

8. Conclusions: identifies key findings, highlights the lessons learned from health system changes; and summarizes remaining challenges and future prospects.

9. Appendices: includes references and useful websites.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process.
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches).

The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible. One of the authors is also a member of the Observatory staff team and they are responsible for supporting the other authors throughout the writing and production process. They consult closely with one another to ensure that all stages of the process are as effective as possible and that HiTs meet the series standard and can support both national decision-making and comparisons across countries.

9.4 The review process

This consists of three stages. Initially the text of the HiT is checked, reviewed and approved by the series editors of the European Observatory. It is then sent for review to two independent academic experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health or appropriate authority, and policy-makers within those bodies are restricted to checking for factual errors within the HiT

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HiTs are in-depth profiles of health systems and policies, produced using a standardized approach that allows comparison across countries. They provide facts, figures and analysis and highlight reform initiatives in progress.

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