eHealth Report UK

Statista Digital Market Outlook – Market Report

September 2018

statista

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The WHO defines eHealth as the use of IT in healthcare

Definition: eHealth

According to the World Health Organization, the official definition of eHealth is as follows: **"eHealth is the secure use of information and communications technologies in support of health and health-related fields, including healthcare services and processes, prevention, health surveillance, treatment, health literature and health education, knowledge and research. eHealth can help cut costs and also includes a high sales potential."**

The field of eHealth is wide and it is not simply possible to cover all areas that represent the eHealth market in its entirety. Therefore, this report contains selected, most relevant eHealth areas with certain examples:

Health surveillance:

- Apps and devices for fitness and health
- Ambient Assisted Living

Treatment:

- Online medication
- Heart failure
- Diabetes
- Hypertension

COUNTRY OVERVIEW

The country overview provides a broader understanding of the country-specific healthcare system and the population's health status.

In this chapter, healthcare expenditure will be discussed and various health-related variables will be presented. Also, an overview of the state of digital infrastructure in the context of eHealth is given.

All UK residents are covered by the statutory health insurance

Healthcare system overview: introduction

The UK **national health system** (NHS) is divided into the **devolved systems** of Northern Ireland, Wales, Scotland, and England. Though managed separately on regional levels and with divergent services, it is altogether **majorly financed by tax money** and provides healthcare at no cost for UK residents.

A **private insurance sector** furthermore exists for services that are only partly covered by the NHS, e.g. dental or elderly care. These insurances are funded by **private payments as in insurance plans**. In 2015, roughly 20% of healthcare expenditure came from such voluntary sources as well as out-of-pocket-payments.

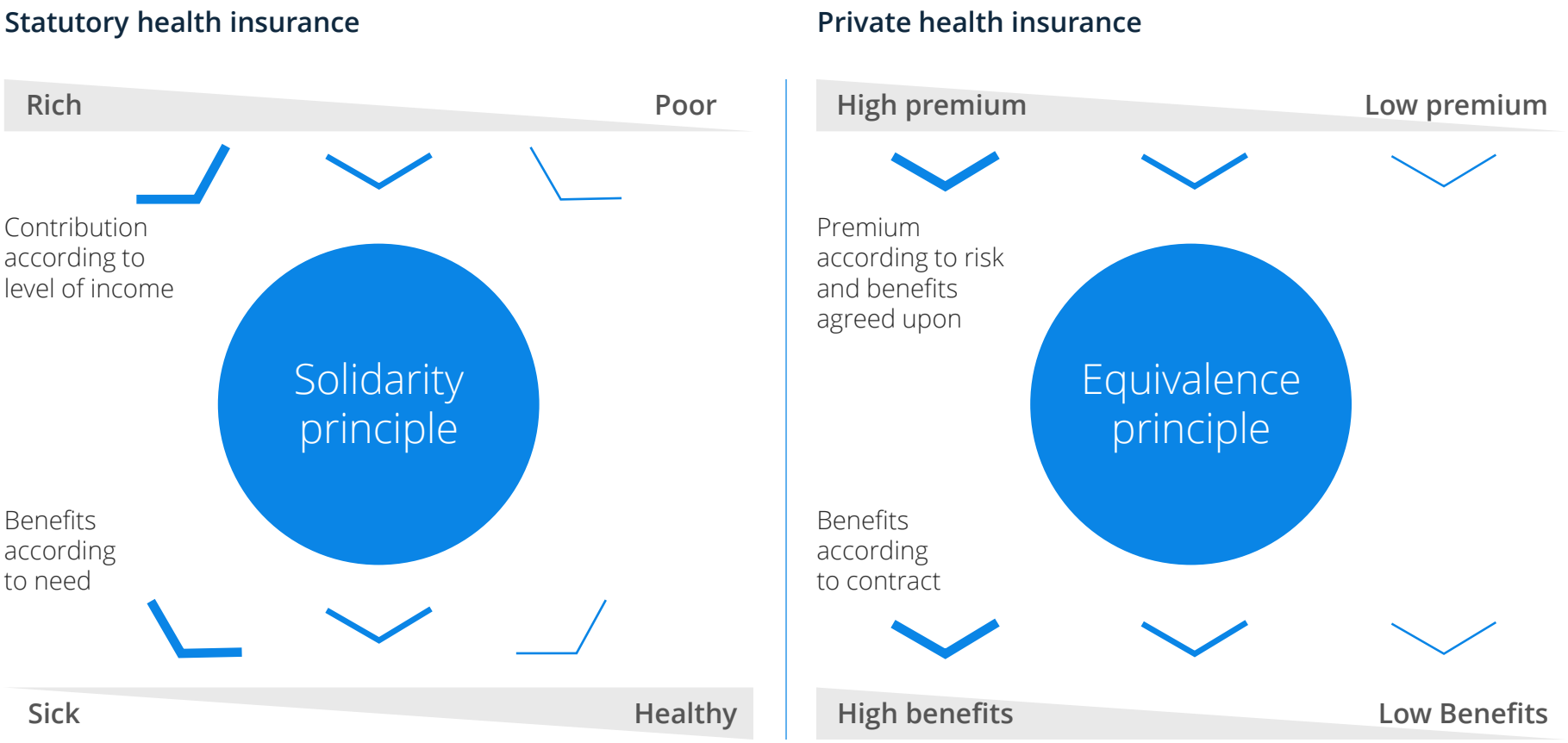
As in many other countries, total **expenditure** on healthcare in the UK – as well as per-capita spending – is **constantly rising** and per-capita spending lies above the OECD average with US$3855. Despite the rise in spending, there is a gap between the expenditure and the rising costs, partly caused by the **aging population** and the high prevalence of **chronic conditions** among elderly people.

This gap has lead to deficits, especially in funding of hospitals. Against this background – as in many other countries – the number of **hospital beds per person is constantly decreasing**. Furthermore, **live expectancy sank** for the first time from 2014 to 2015.

Source: OECD, export.gov, The Conversation

Benefits in private insurance rise with premiums, while statutory insurance is need based

Healthcare system overview: insurance systems

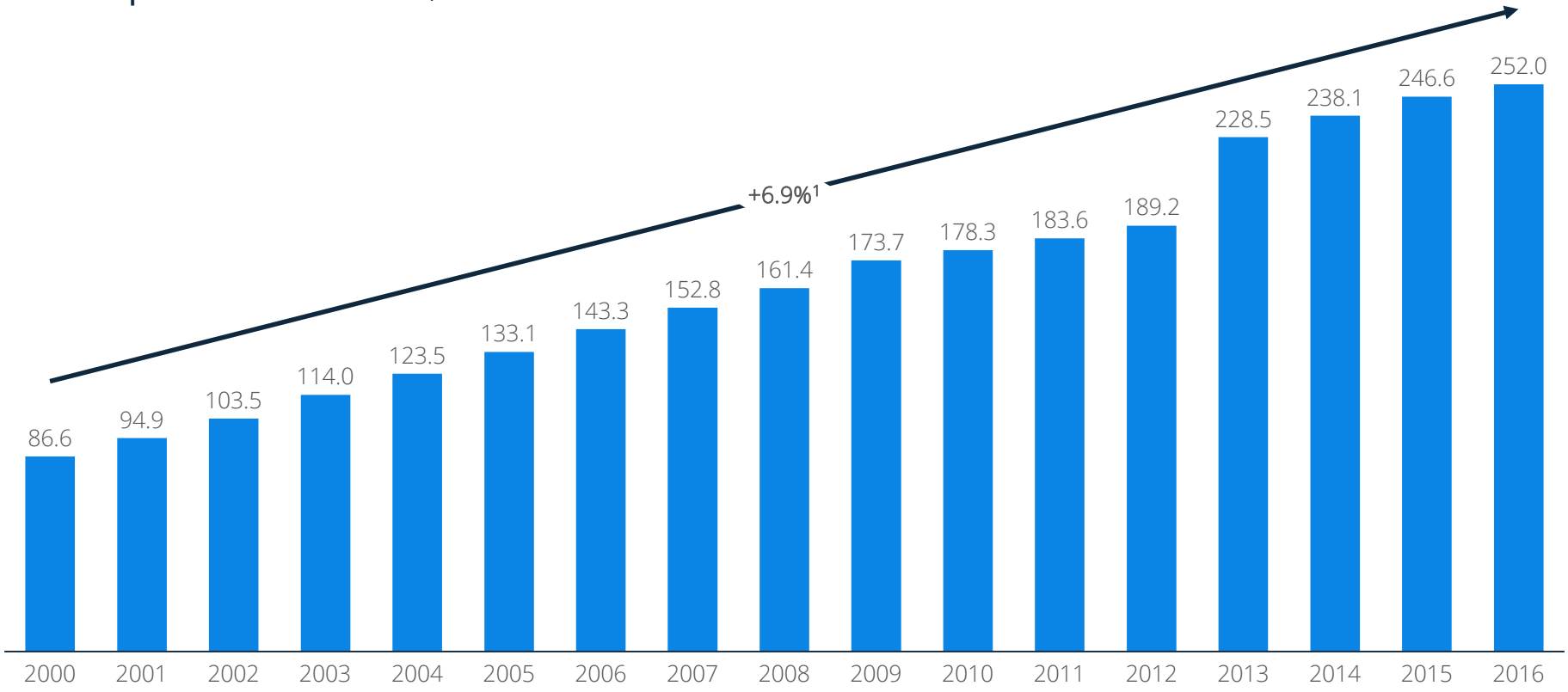


Note: Thickness of arrows represents amount of contributions/premiums and benefits. Thicker arrows stand for a higher amount.
Source: medical-allee

Total spending on healthcare in the UK is constantly rising

Healthcare system overview: spending (1/4)

Health expenditure in billion US$

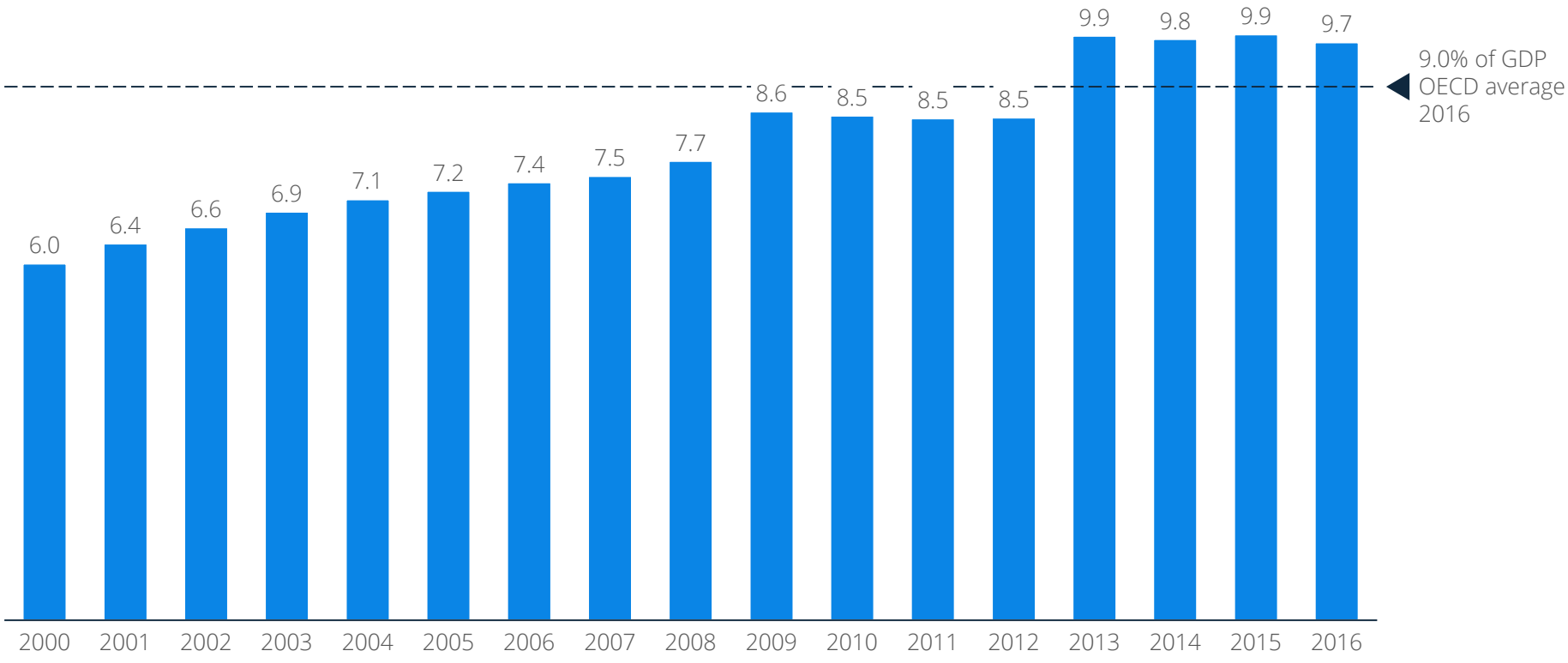


1: CAGR: Compound Annual Growth Rate / average growth rate per year
Note: Data in current prices; 2016 estimated value; Source in Pound Sterling converted with average exchange rate for 2016 (USD/GDP 0.7402)
Source: OECD, Oanda

In 2016, the UK spent 9.7% of GDP on healthcare

Healthcare system overview: spending (2/4)

Spending on healthcare in % of GDP

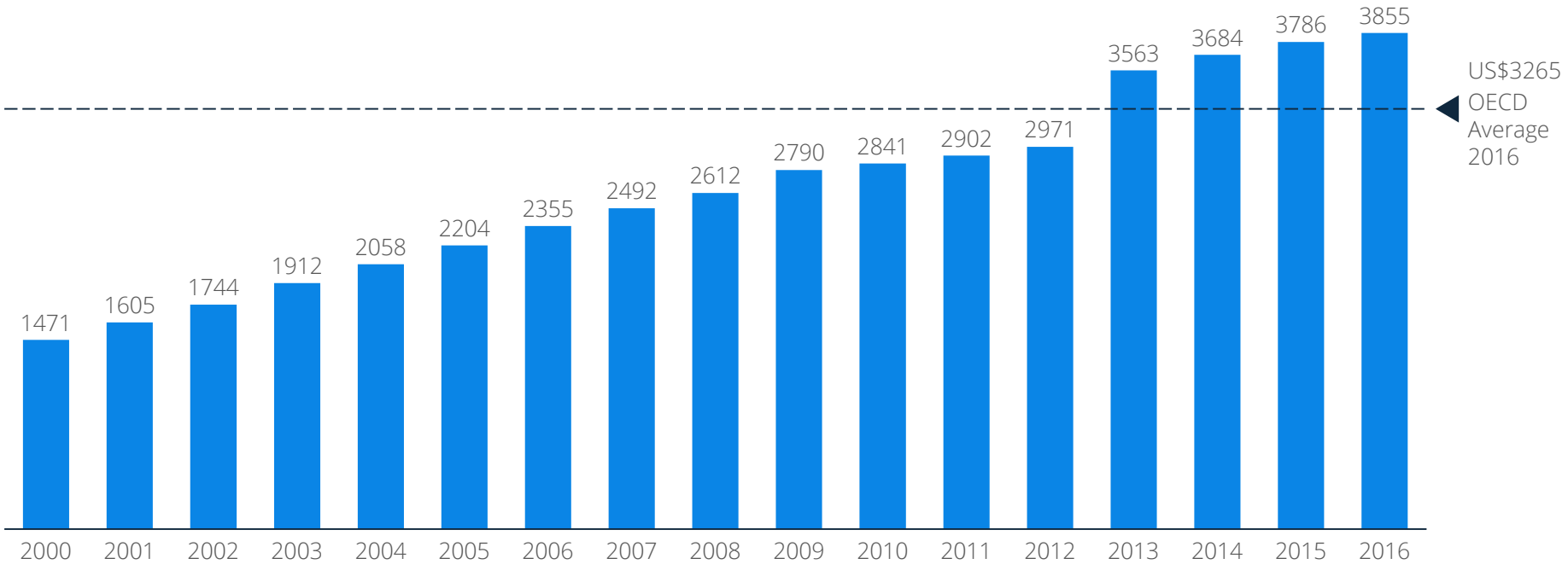


Source: OECD

The UK's healthcare spending per capita is above the OECD average

Healthcare system overview: spending (3/4)

Healthcare spending per capita in US$

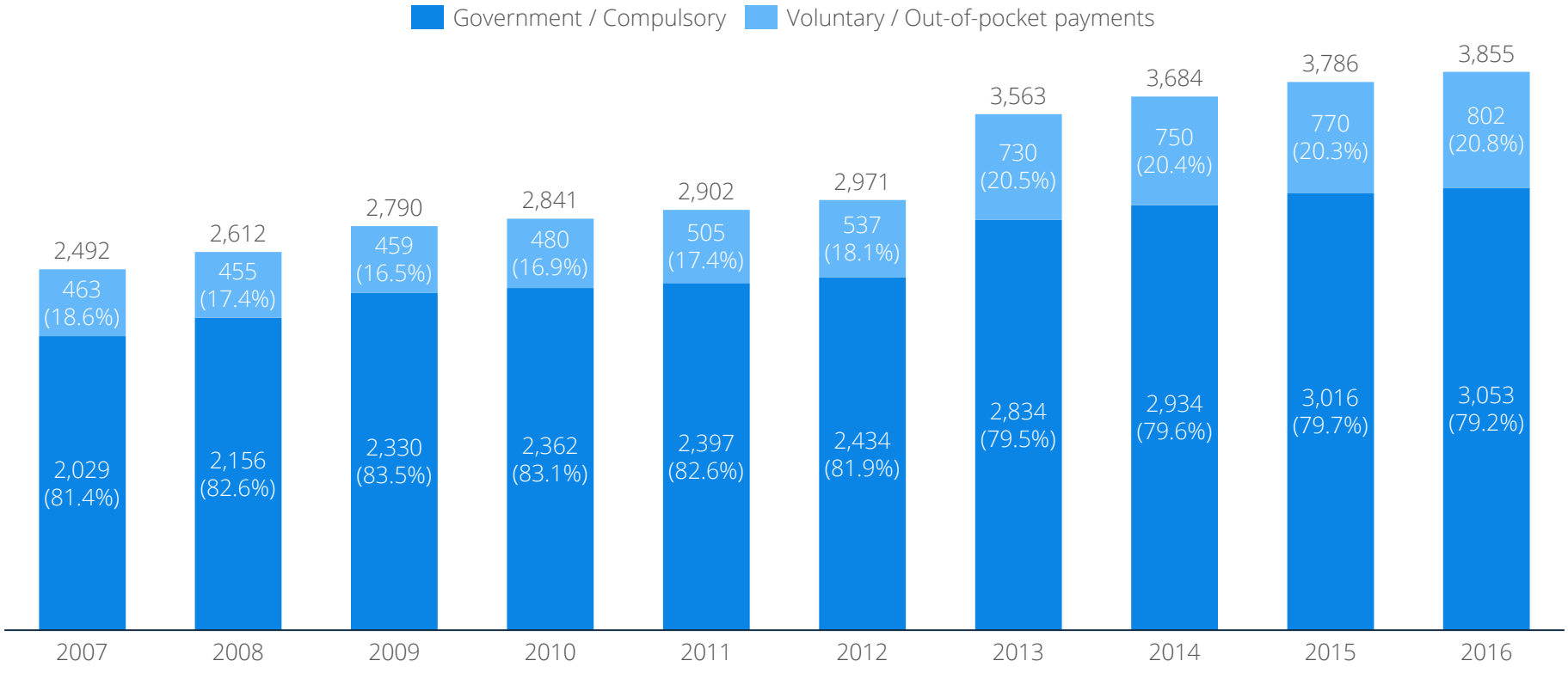


Note: Data in current prices; 2016 provisional data. Source in Pound Sterling, converted based on 2016 average exchange rates (USD/GBP 0.7402).
Source: OECD, Oanda

79.7% of per-capita spending in the UK comes from compulsory health insurance

Healthcare system overview: spending (4/4)

Healthcare spending per capita in US$

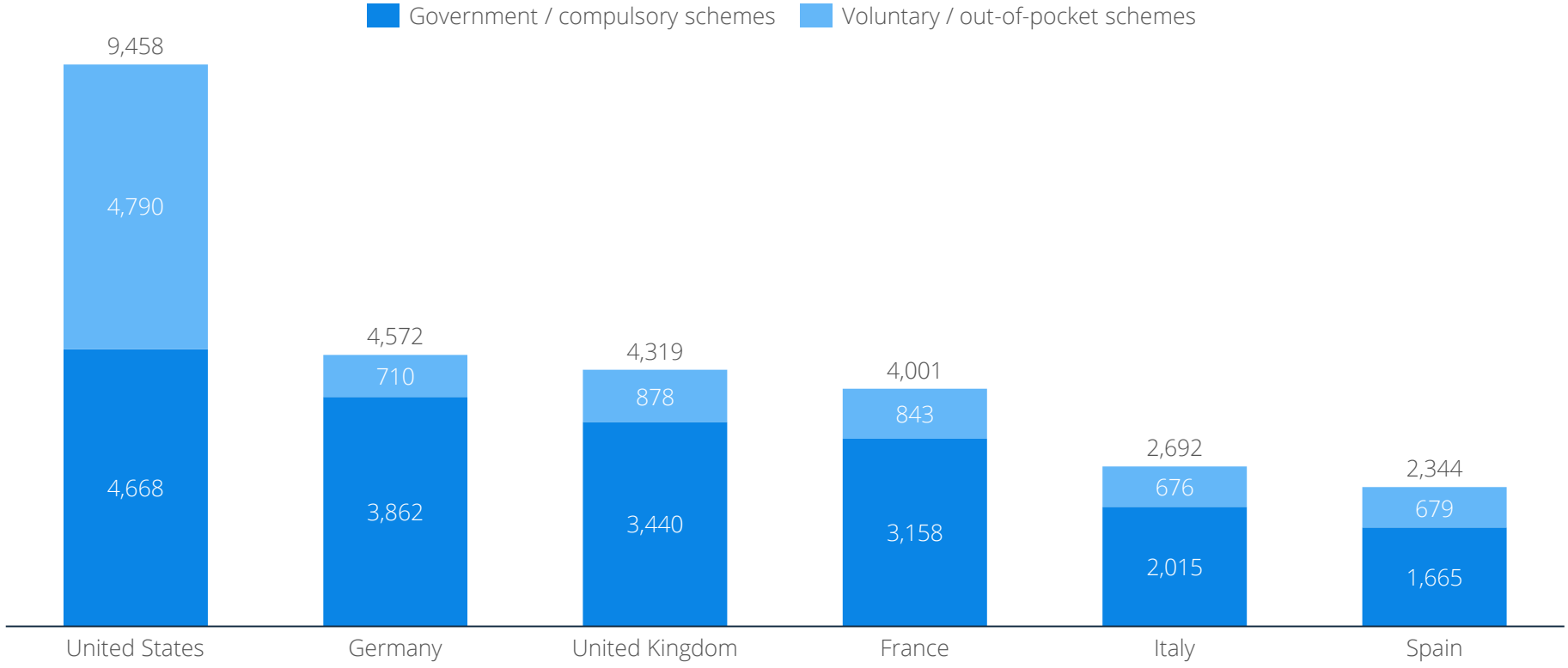


Note: Data in current prices; 2016 estimated value; Source in Pound Sterling, converted based on 2016 average exchange rates (USD/GBP 0.7402)
Source: OECD, Oanda

Healthcare spending per capita in the UK is high compared to other European countries

Healthcare system overview: country comparison (1/2)

Healthcare spending per capita in 2015 in US$

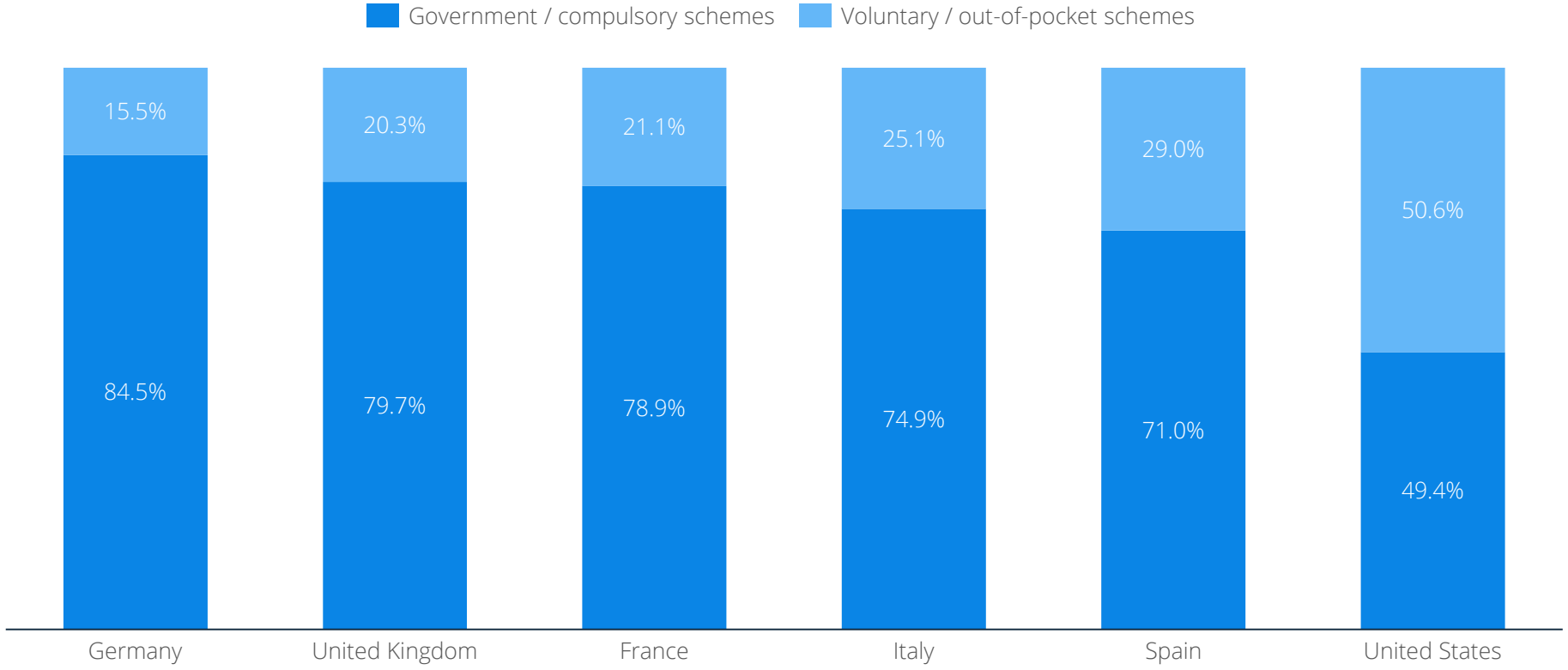


Note: Original data in Euro/Pound converted according to average exchange rate for 2016 (USD/GBP 0.7402, USD/EUR 0.9037).
Source: OECD, Oanda

Close to 80% of health expenditure in the UK is financed by compulsory financing

Healthcare system overview: country comparison (2/2)

Share of healthcare spending per capita by source in 2015 in US$

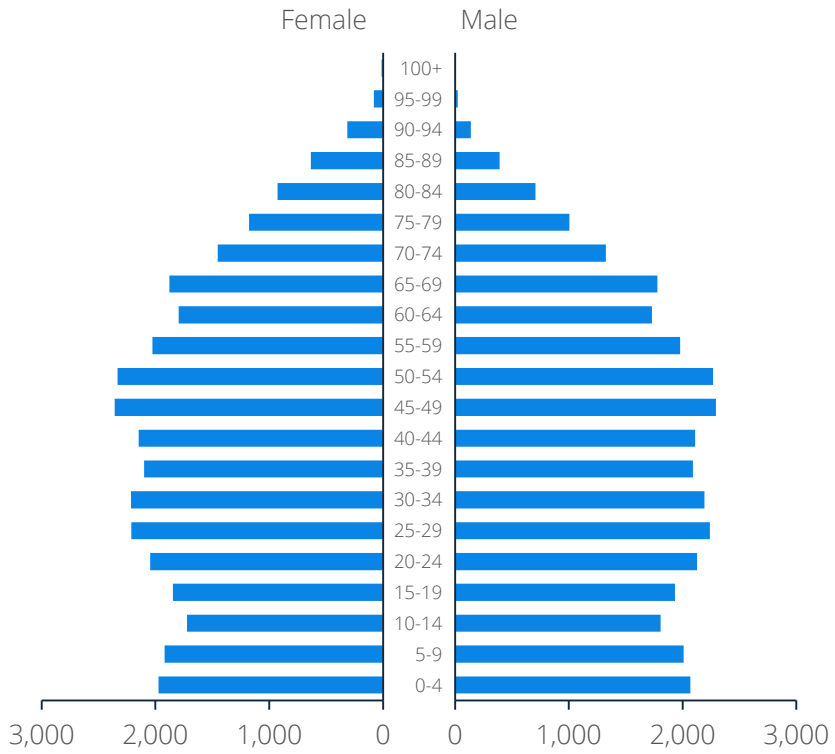


Note: Original data in Euro/Pound converted according to average exchange rate for 2016 (USD/GBP 0.7402, USD/EUR 0.9037)
Source: OECD, Oanda

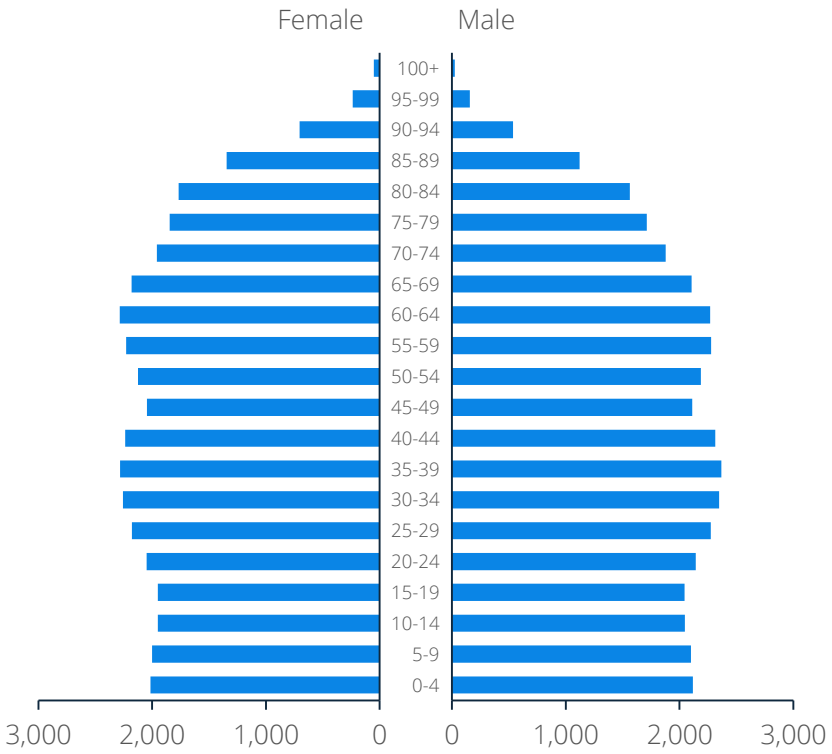
The British population will be increasingly older

Population health status: age demographics (1/2)

Population per age group in thousand in 2015



Population per age group in thousand in 2050

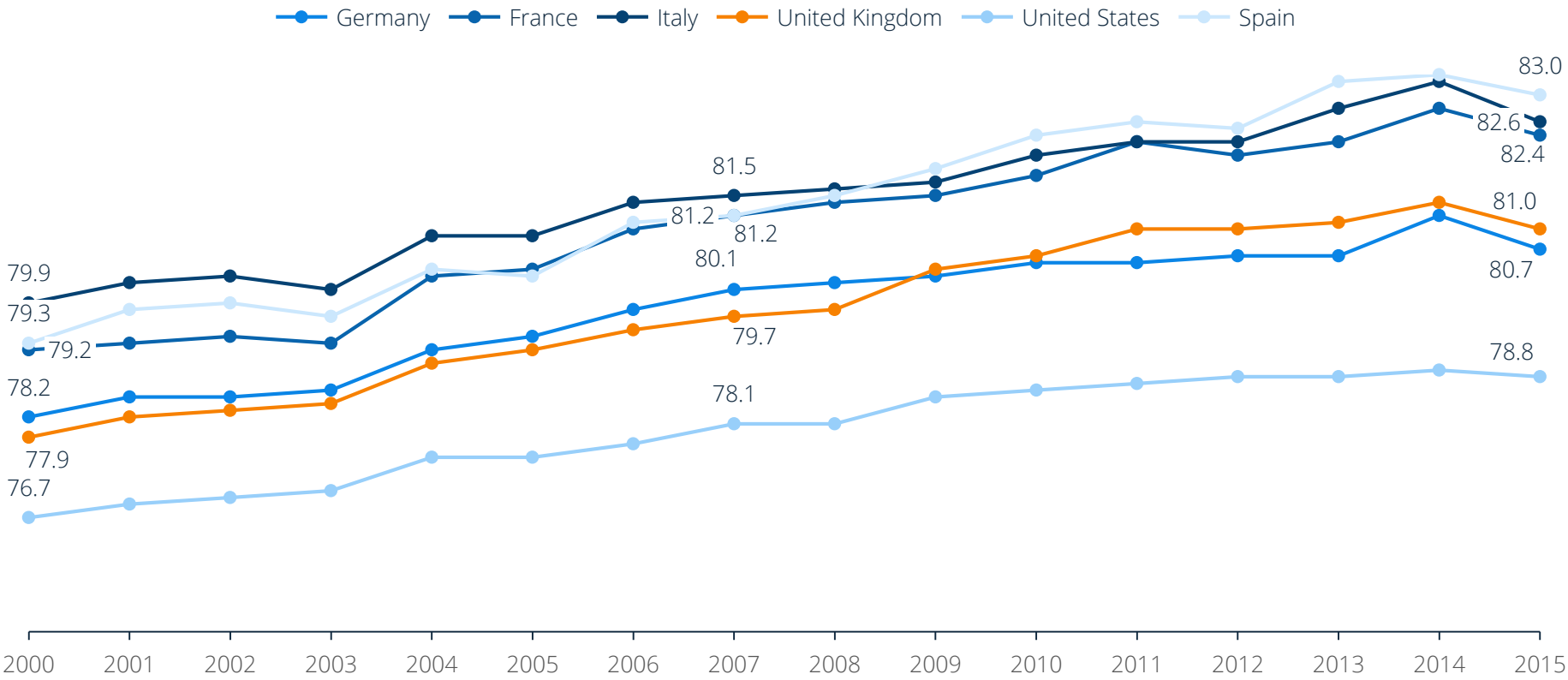


Source: UN Department of Economic and Social Affairs

Life expectancy in the UK is average among developed countries

Population health status: age demographics (2/2)

Life expectancy at birth in years

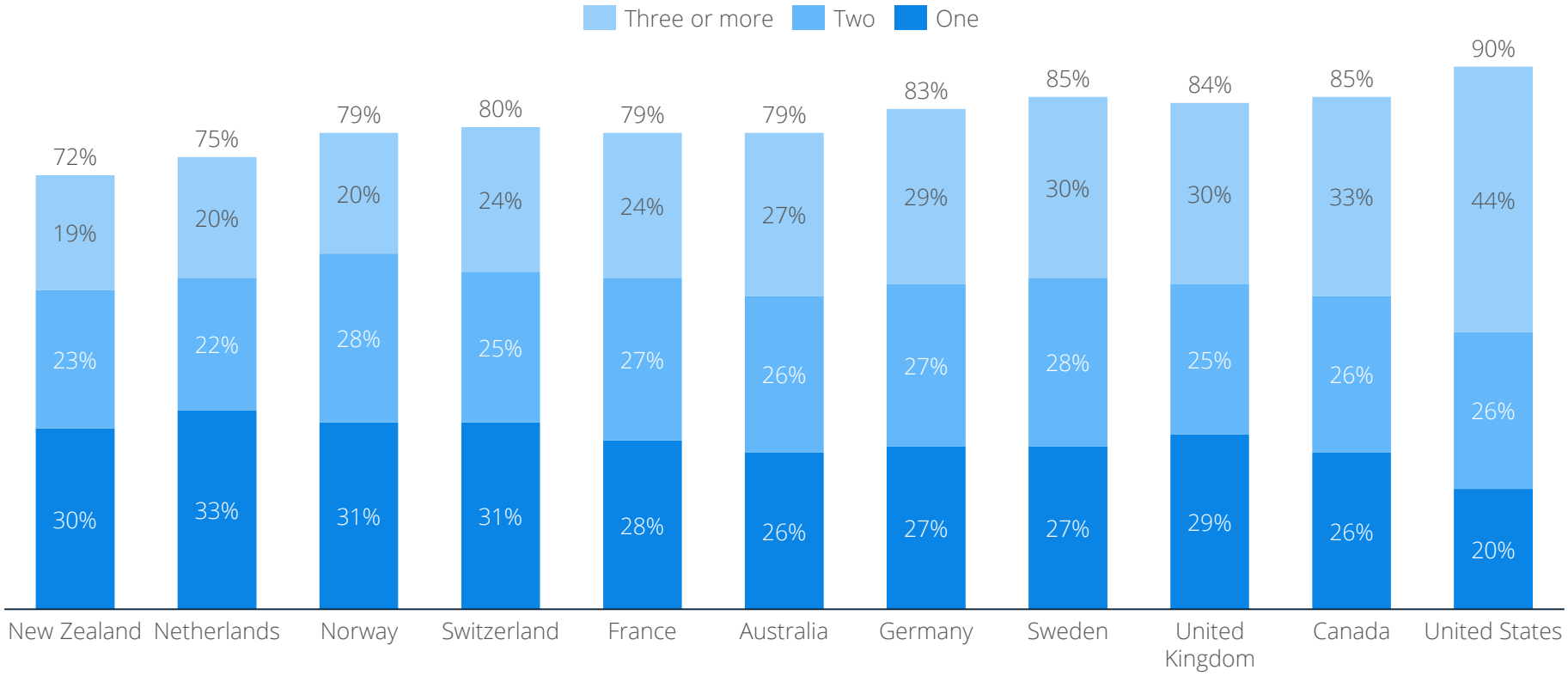


Source: OECD

30% of UK seniors suffer from at least three chronic conditions

Population health status: illness & disease (1/2)

Percentage of seniors aged 65 years and older that had a select number of chronic conditions in 2017 by country

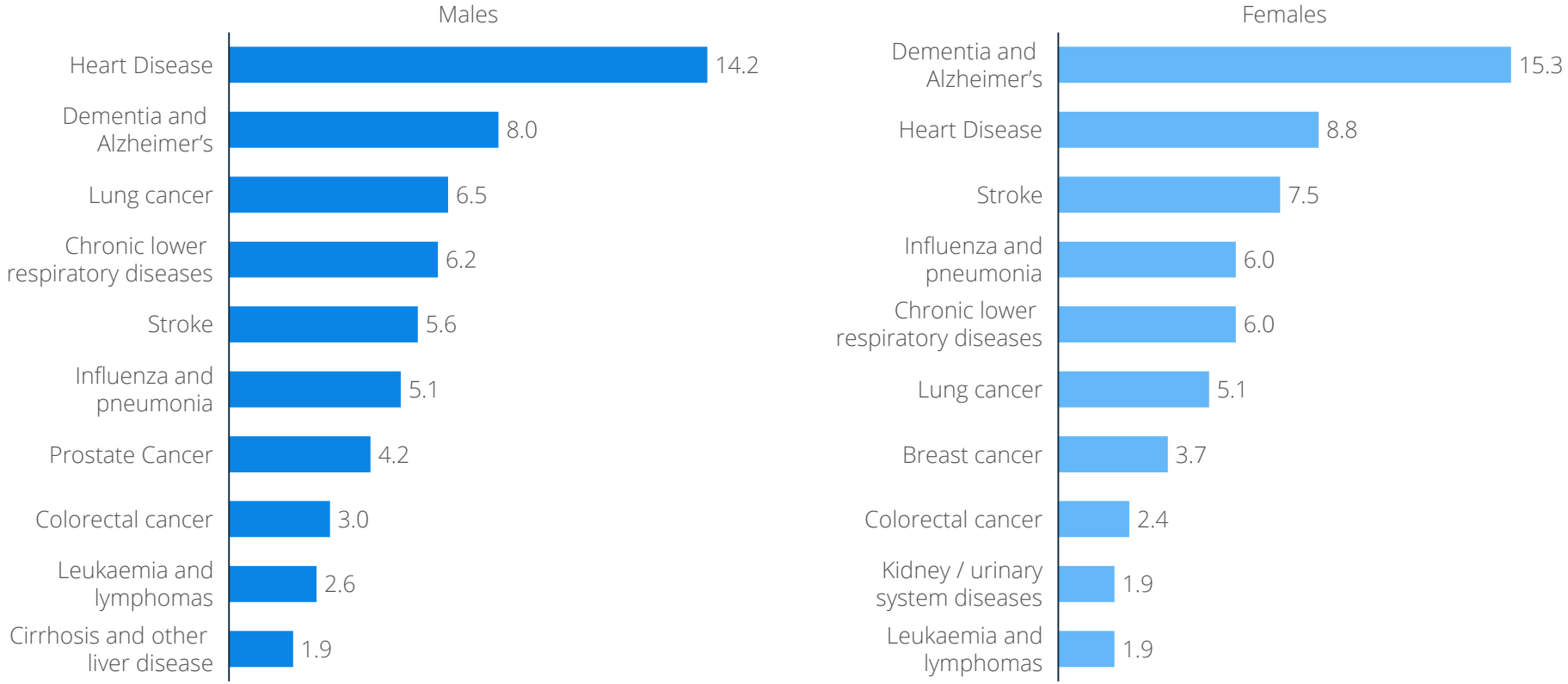


Source: CIHI

While men in England most frequently die from heart disease, women are more prone to Dementia

Population health status: illness & disease (2/2)

Leading causes of death in England in 2015 in % of all deaths

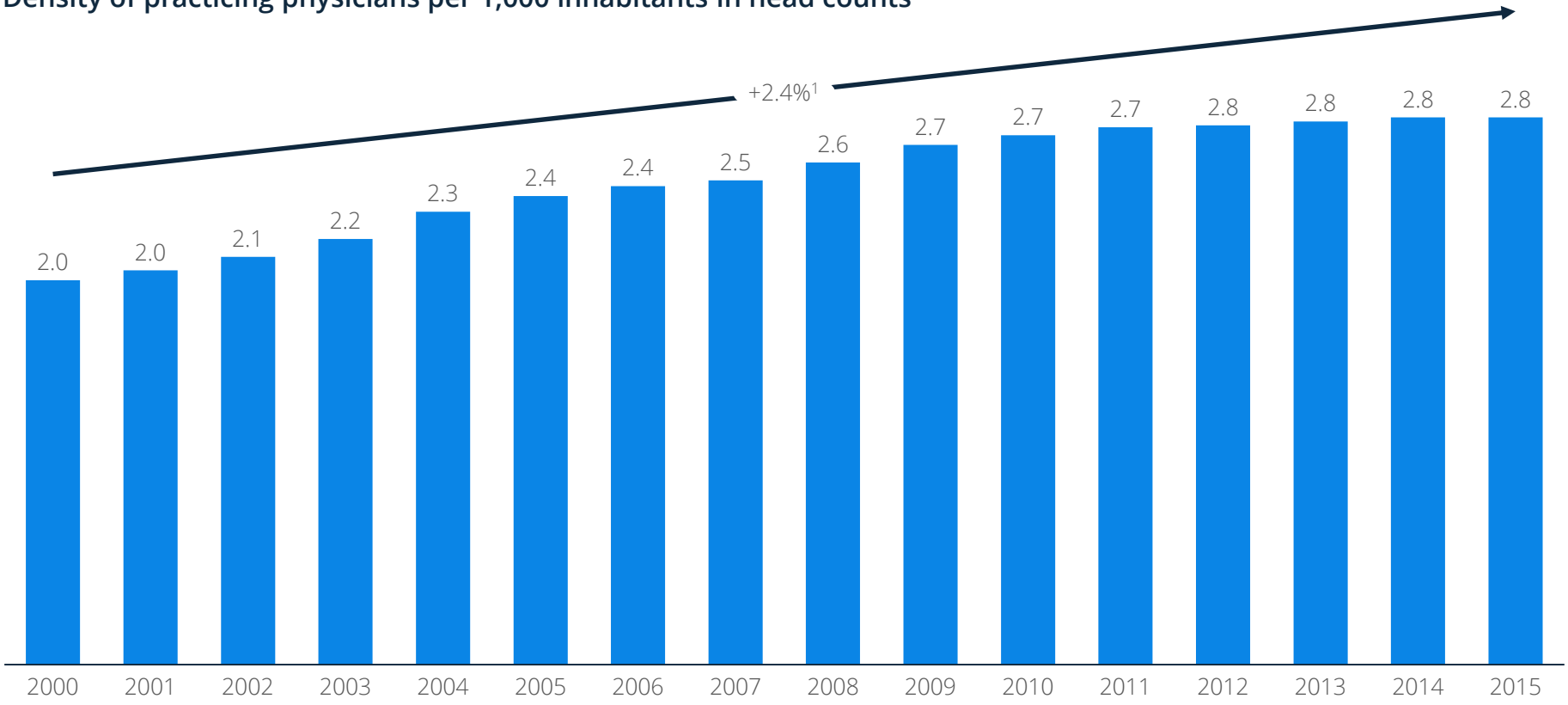


Source: gov.uk

The number of physicians per 1,000 inhabitants lies below average in the UK

Population health status: healthcare resources (1/2)

Density of practicing physicians per 1,000 inhabitants in head counts

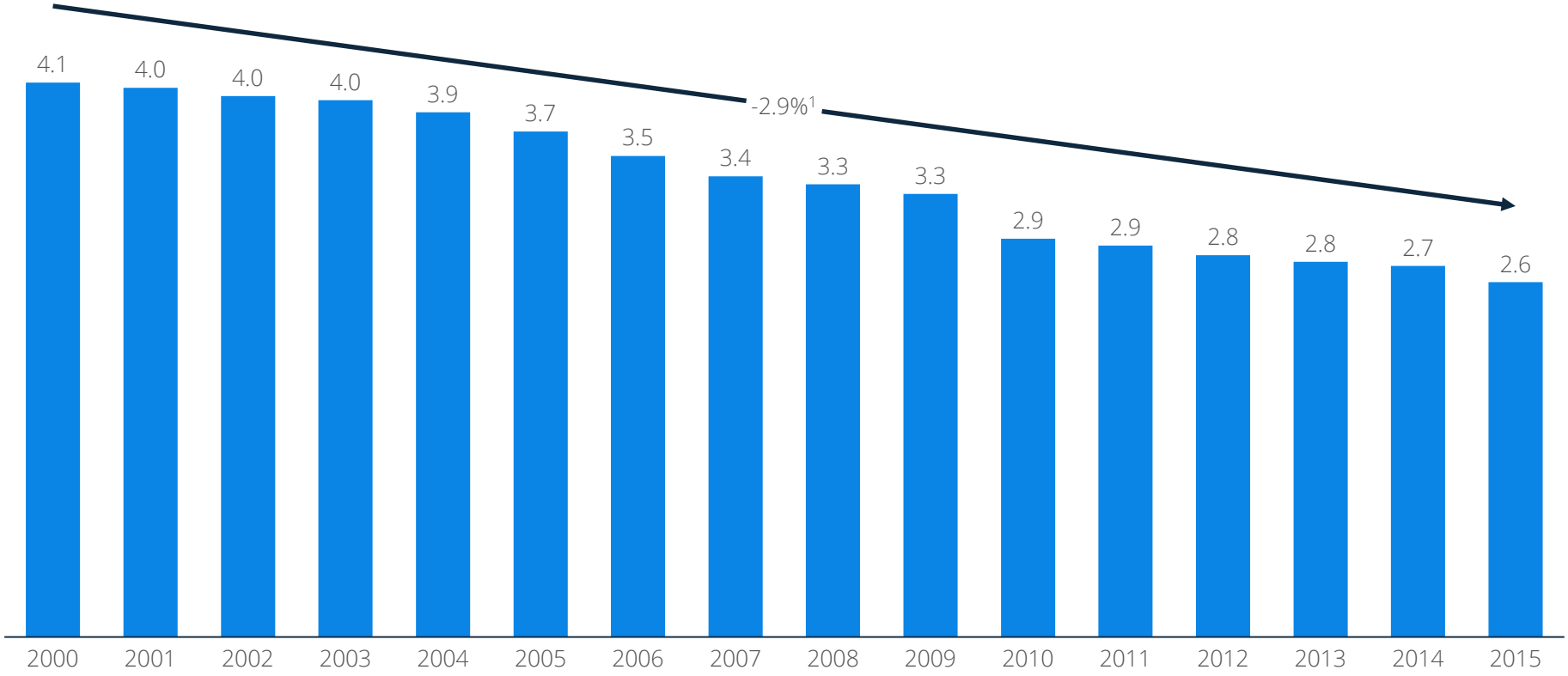


1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: OECD

The number of hospital beds per 1,000 inhabitants is decreasing fast in the UK

Population health status: healthcare resources (2/2)

Number of hospital beds per 1,000 inhabitants in head counts

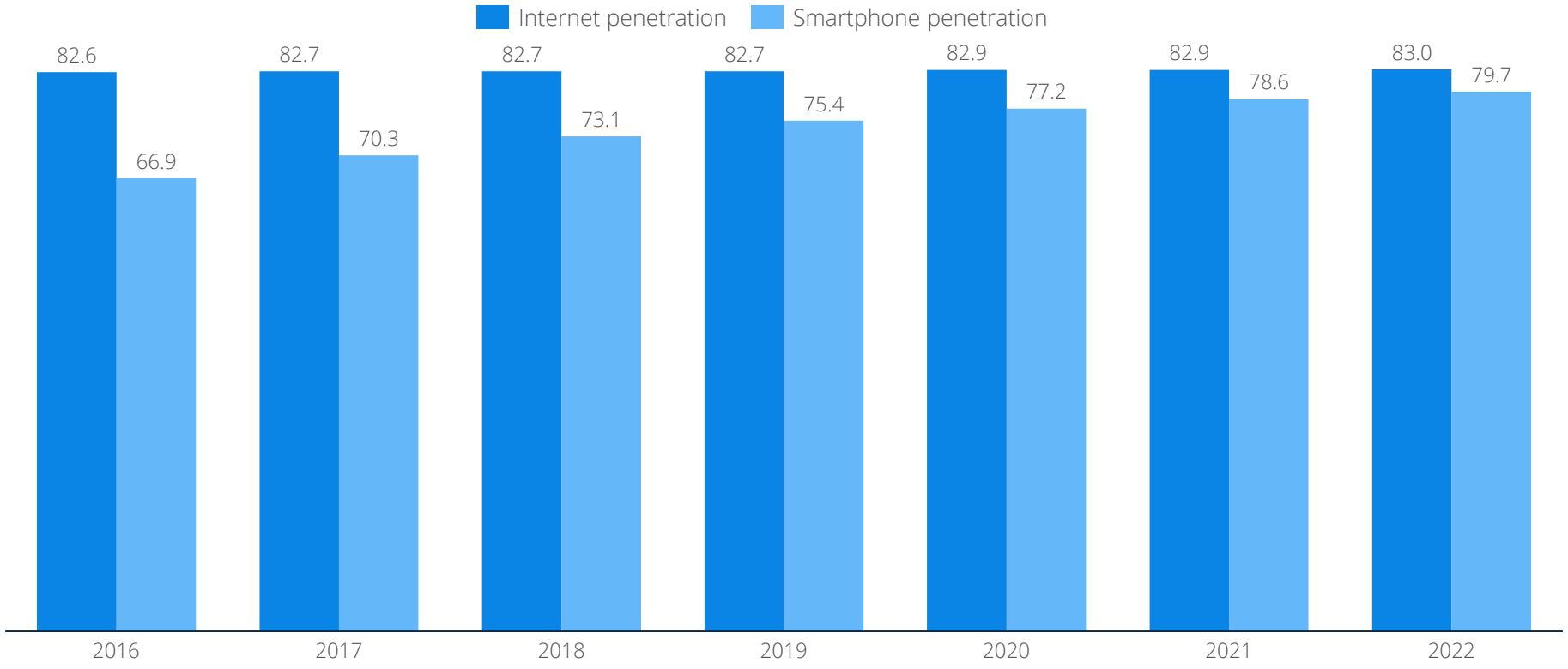


1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: OECD

Internet penetration in the UK is expected to grow slowly, with smartphone penetration catching up

Digital infrastructure: technology penetration (1/2)

Internet and smartphone penetration in %

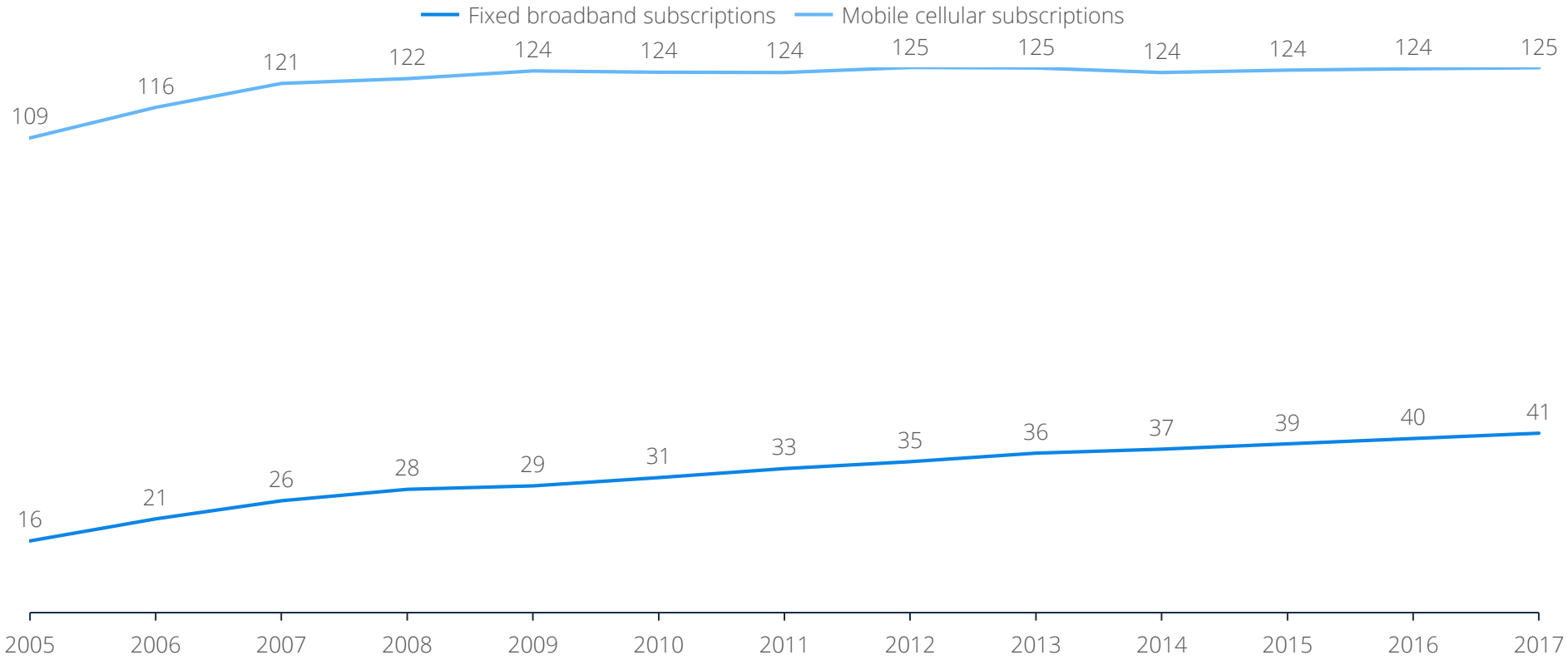


Source: Statista Digital Market Outlook 2018

People in the UK have more than one cellular subscription

Digital infrastructure: technology penetration (2/2)

Mobile cellular subscriptions and fixed broadband subscriptions per 100 capita

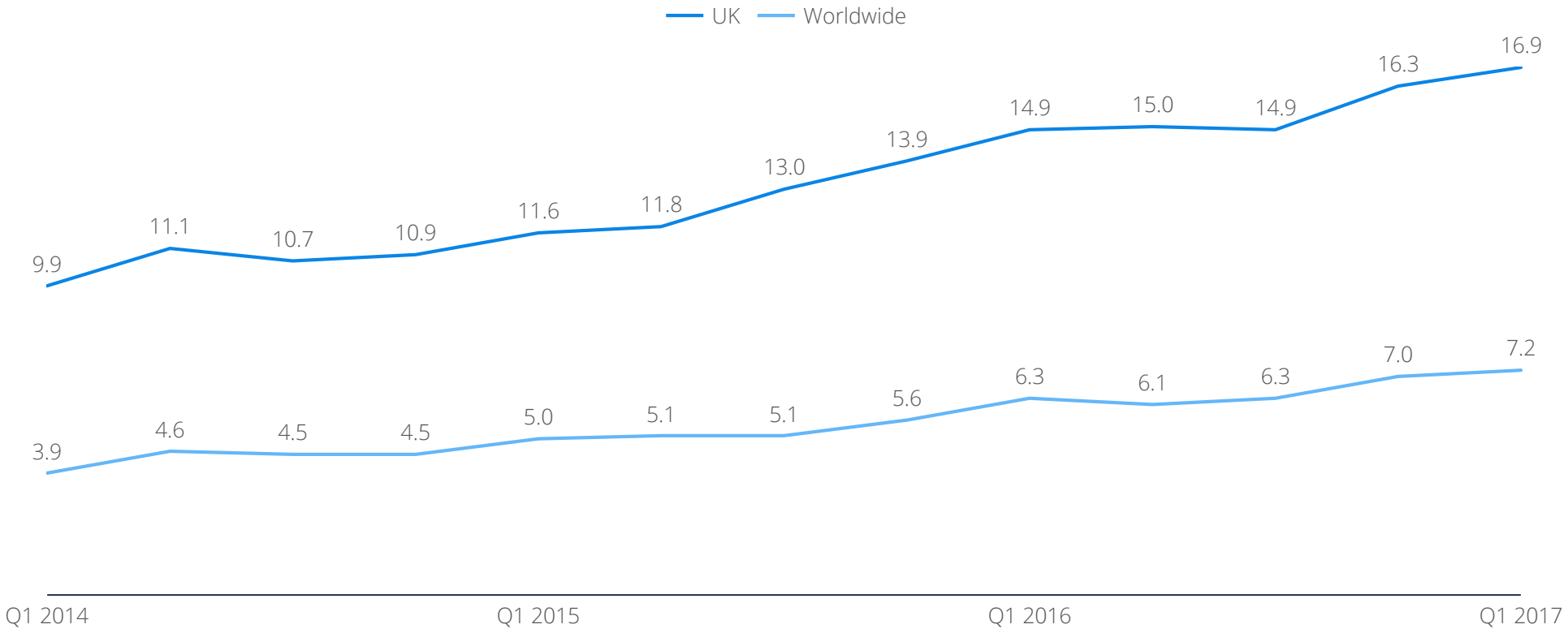


Source: Worldbank, Statista Digital Market Outlook 2018

Internet connection speed in the UK is constantly rising and will exceed 16 Mbit/s

Digital infrastructure: connectivity

Average internet connection speed in Mbit/s



Source: Akamai Technologies

FITNESS

The Fitness segment includes apps and wearables that measure and analyze physical activity or body functions.

In this chapter, the current market size, trends and expected developments of the Fitness market will be discussed. Also, an overview of selected wearables will be presented.

Customers benefit from information about their bodies to reach fitness goals

Fitness: segment overview

There are different ways in which customers can benefit from Fitness wearables/trackers and Fitness apps. Fitness **wearables measure and analyze physical activity** or body functions. They are usually combined with an app to give valuable insights into an individual's fitness. These insights can help users to understand their body better and support them in reaching specific fitness goals, for example losing weight, by tracking calories or calculating burned calories with a tracker.

An activity tracker that counts steps can also **motivate** people of average fitness to reach a certain target (e.g. 10,000 steps a day). It can also help **increase everyday activities** by **encouraging** the user to take the stairs instead of the lift, for example.

In the end, everyone who exercises can benefit. Wearables are **handy** and give an **overview of current vital signs**. It is thus more practical and less bulky to use wristwear to get real-time insights into current health data while exercising, than to carry a smartphone. Apps and wearables have features that allow for **tracking progress and setting fitness achievements**. This keeps users motivated and helps them enjoy exercising even more.

Wearable tech is not only appealing to athletes, in fact it is also beneficial for people **with health concerns,** since it gives valuable medical information (e.g. heartrate) and improves **clinical knowledge.**

Key takeaways

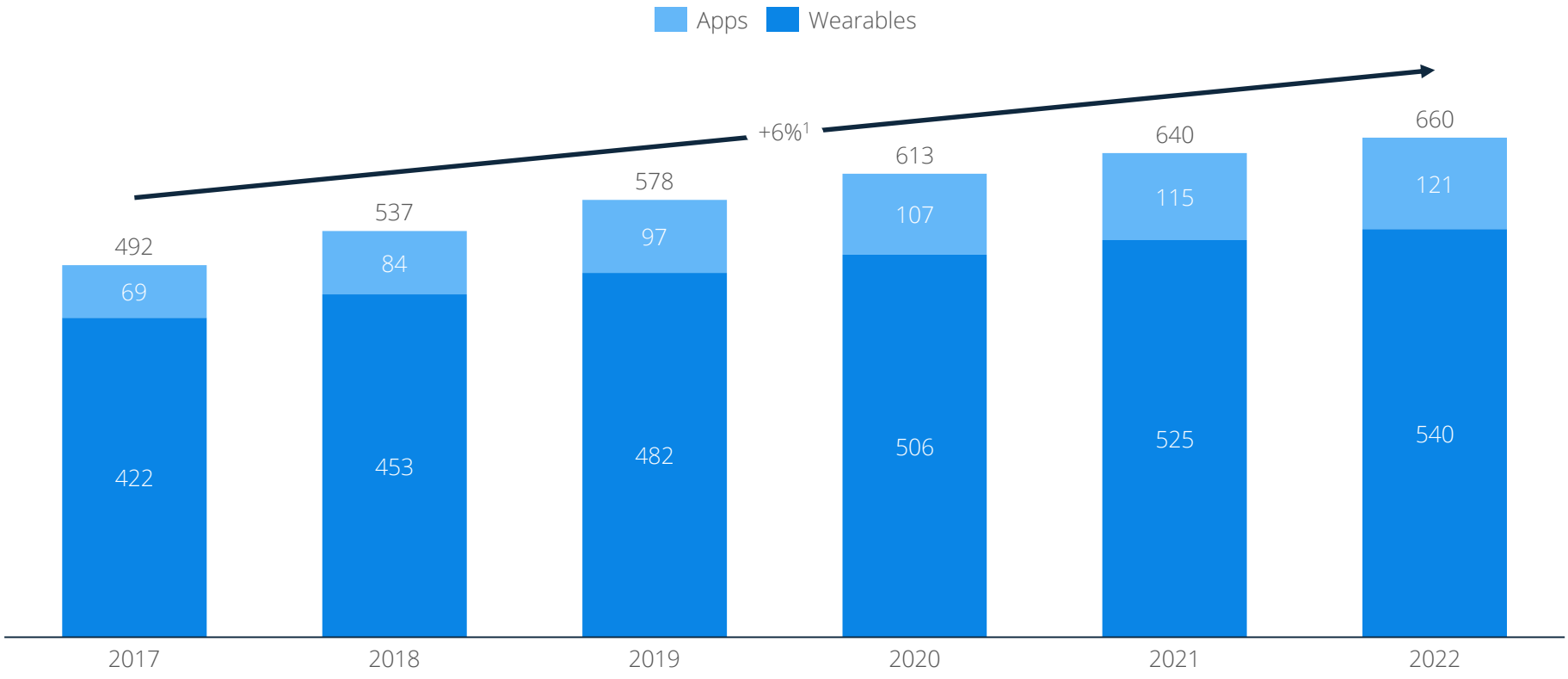
- Revenue in the Fitness segment amounts to US$492 million in 2017
- Revenue is expected to show an annual growth rate (CAGR[1] 2017-2022) of 6.1%, resulting in a market volume of US$660 million by 2022
- The average revenue per user amounts to US$35 in 2017
- From an international perspective, most revenue will be generated in the U.S. (US$4,315 million by 2022)

Source: Statista Digital Market Outlook 2018

Revenues of Fitness products are increasing at a CAGR[1] of 6%

Fitness: market size and future developments (1/3)

Revenue in million US$



1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

The UK shows a high user growth in Fitness Apps

Fitness: market size and future developments (2/3)

Users in million

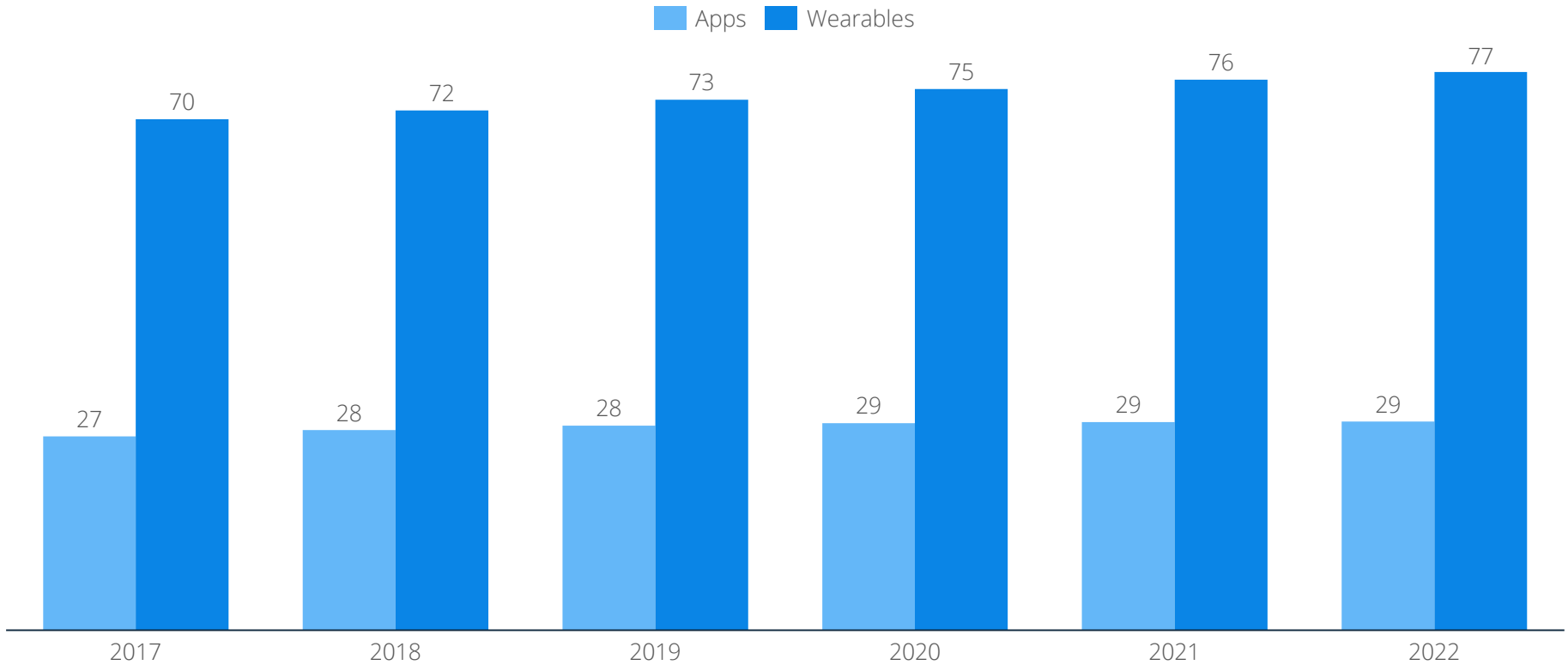
Segment	2017	2018	2019	2020	2021	2022	CAGR[1] 17 – 22
Wearables	6.0	6.3	6.6	6.8	6.9	7.0	3.2%
Apps	2.6	3.0	3.4	3.8	4.0	4.2	10.1%

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Wearables show a significantly higher average revenue per user than Apps

Fitness: market size and future developments (3/3)

Average revenue per user in US$



Source: Statista Digital Market Outlook 2018

Athos designs workout apparel that measures body functions and muscle activity

Deep dive: fitness wearables (1/2)

Athos - smart clothes

Athos designs training clothes that are woven with micro-EMG sensors. They detect which muscles are working and transfer this workout data to a smartphone via a Bluetooth core. The clothes use machine learning to provide insights specific to every athlete's muscle composition and strength, called muscle-activity-based feedback.

Under Armour - smart shoes

Via a sensor these shoes track, analyze & store running metrics and synchronize with Under Armour's MapMyRun App. Additionally to measuring the distance covered, speed or time, the shoes can measure muscle fatigue by a so called "jump test". Based on this information, the runner receives recommendations on how to train that day.

Source: Company Information

Wearable X launches mobile-connected yoga pants that guide users through yoga exercises

Deep dive: fitness wearables (2/2)

Sensoria – running socks

Sensoria launched smart running socks in order to help analyze and improve people's running behavior. Pressure sensors integrated in the plantar area of the socks record cadence, foot-landing, pace as well as distance, and transmit this data to the electronic anklet which is attached to the sock. As the anklets are connected to a mobile app, the runner is able to track, store and analyze the gathered data.

Wearable X - Nadi X yoga pants

The Nadi X yoga pants are Bluetooth-enabled fitness clothes with pulse sensors on the hips, knees and ankles. The embedded sensors release soft vibrations to guide, instruct and facilitate yoga exercises. The yoga practitioner can use the Nadi X mobile app, which is connected to the sensors via Bluetooth to adjust impulse frequency and intensity in order to optimize movements and hold yoga postures. The mobile app offers 30 different yoga exercises that are connected with the smart pants.

Source: Company Information

AMBIENT ASSISTED LIVING

The Ambient Assisted Living segment includes products and devices that help care-dependent people to manage their household activities on their own.

In this chapter, the current market size, trends and expected developments of the Ambient Assisted Living market will be discussed. Also, the further impact of robotics and artificial intelligence will be presented.

Sales potential of AAL products is forecast to be US$186 million by 2022

Ambient Assisted Living: segment overview

Ambient Assisted Living (AAL) helps elderly people, but also people with special needs, to **manage their household activities** better on their own. It is ideal for people who require monitoring in general, including e.g. children and chronically ill people. The trend is part of the eHealth sector since the respective devices track the user's health data at home. Furthermore, it can be seen as the **smart home part of eHealth,** as AAL products usually aim at providing assistance in a domestic context.

For the depicted calculations the following elements were considered: Devices include **pressure mats** that detect if a person has fallen and check whether he or she gets up again, as well as **emergency buttons** that are either attached to walls or worn on the body. With these buttons, users can notify emergency services whenever needed without having to dial a telephone number. In addition to these hardware devices, the **underlying services for elderly monitoring** and on-demand contacts are also part of the market. Devices not connected to the internet are not part of AAL.

Driven by the rising number of elderly people in society and an ever higher adaption of smart home devices, **AAL becomes increasingly important**. While in the current stage of the AAL market products focus on help in case of emergency, integrated home automatization and robotics, which aim to enable an independent life as long as possible, will become more relevant in the future.

Key takeaways

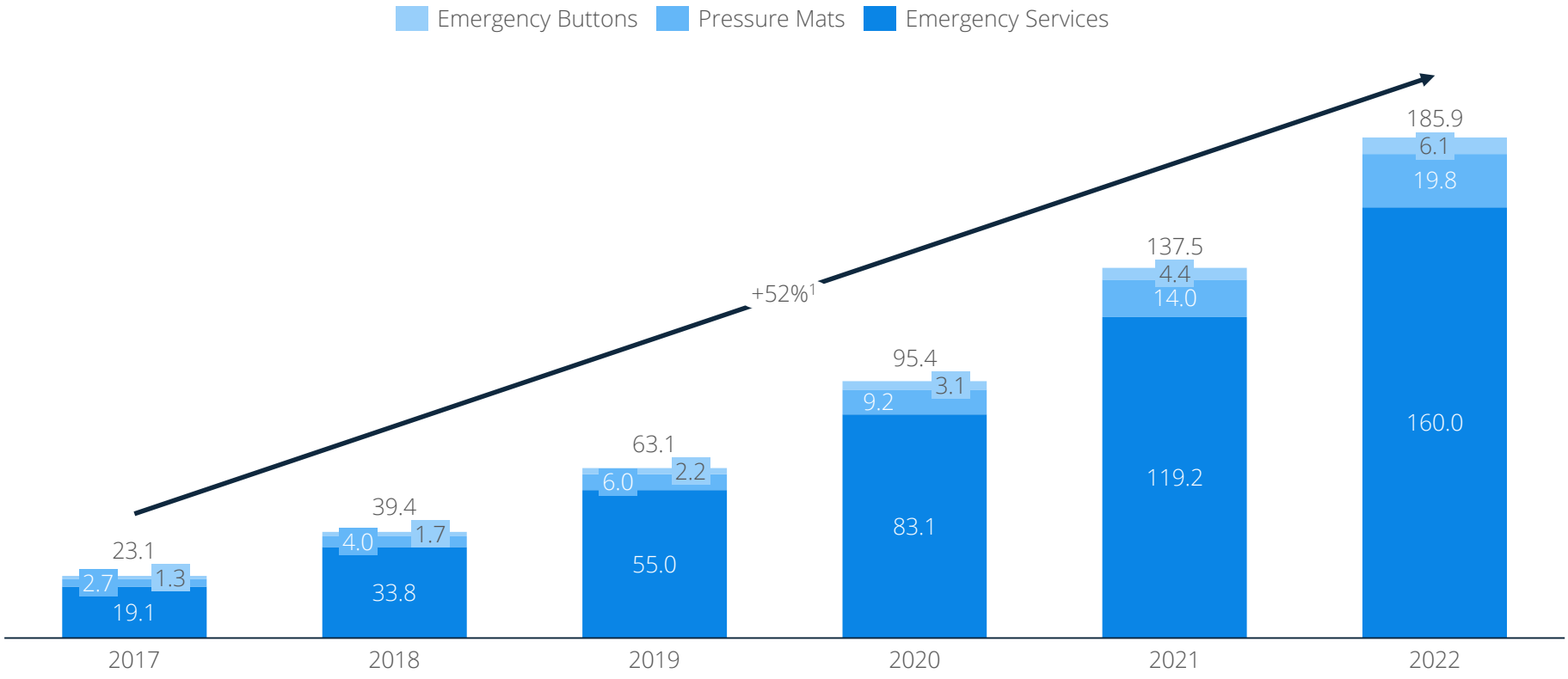
- Revenue in the Ambient Assisted Living (AAL) segment amounts to US$23 million in 2017
- Revenue is expected to show an annual growth rate (CAGR[1] 2017-2022) of 51.7%, resulting in a market volume of US$186 million by 2022
- The average revenue per Smart Home is the highest for Emergency Services with US$1,319 in 2017
- From an international perspective, most revenue will be generated in the U.S. (US$1,987 million by 2022)

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Revenues of AAL products will significantly increase at a CAGR[1] of 52%

Ambient Assisted Living: market size and future developments (1/3)

Revenue in million US$



1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Ambient Assisted Living is expected to experience high growth

Ambient Assisted Living: market size and future developments (2/3)

Homes with AAL functionalities in thousand

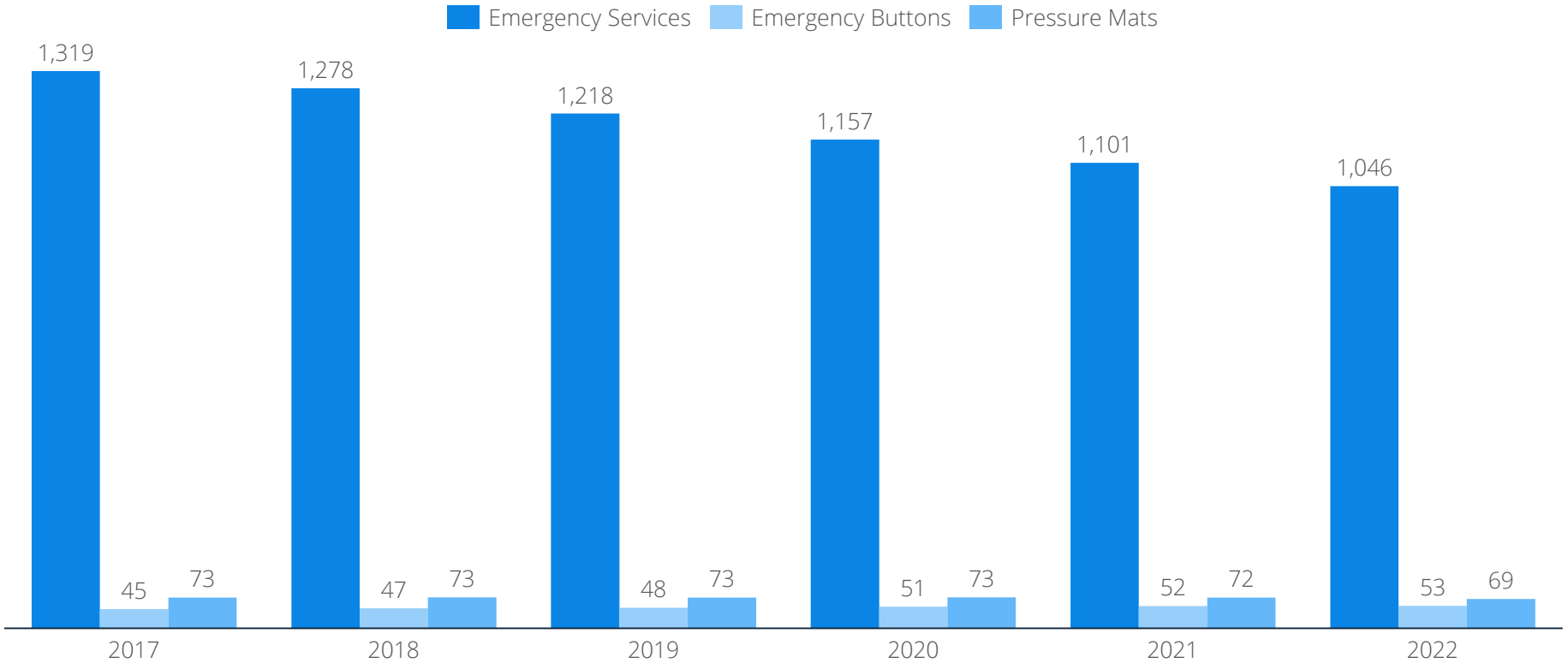
Segment	2017	2018	2019	2020	2021	2022	CAGR[1] 17 – 22
Pressure Mats	37.4	55.1	82.2	125.5	192.8	287.2	50.3%
Emergency Buttons	28.4	35.5	45.7	61.0	83.8	116.3	32.6%
Emergency Services	14.5	26.4	45.1	71.8	108.2	152.9	60.2%

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Emergency Services generate the highest revenue per home due to regular fees

Ambient Assisted Living: market size and future developments (3/3)

Average revenue per home with AAL functionalities in US$



Source: Statista Digital Market Outlook 2018

Robotics will play an important role in the future AAL market

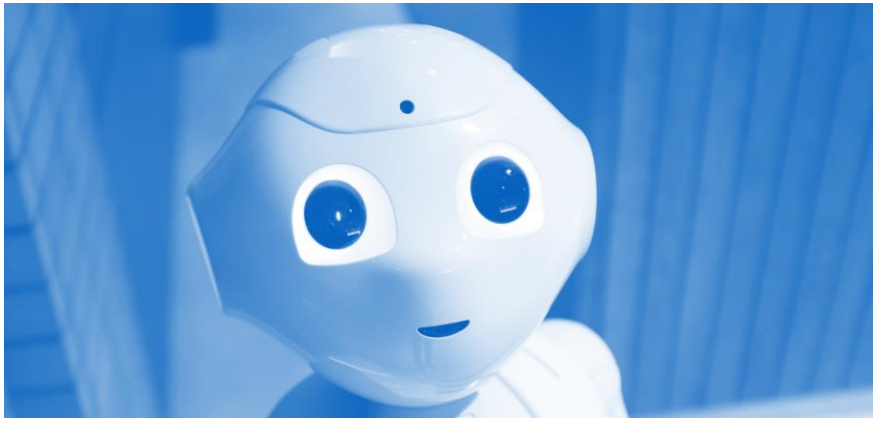
Deep dive: robotics and artificial intelligence in elderly care

While at the moment the focus in the AAL market lies with advanced home automation and emergency concepts, **robotic technology** will play an important role in the lives of elderly people in the near future. Robotic devices already exist in the broader smart home context and are also applied within **elderly care**, for example in the form of electrically powered mobility aids that automatically slow down when walking downhill, or household appliances like robotic vacuum cleaners. These technologies are going to be **more advanced** to satisfy a variety of needs in the future.

The concept of **Artificial Intelligence (AI)** is closely linked to the topic of robotics. The potential of AI within healthcare is huge. There is already an increasing amount of start-ups using AI. In future times, these systems might be used in **population health management**, for the reduction of drug discovery times and also for digital smart avatars capable of answering questions.

Chatbots are also part of AI. Patients in need of a quick diagnosis can ask chatbots, which are able to automate conversations. Hence, patients may use chatbots to check symptoms as well as treatment options, remind their owners about appointments, arrange transport like cabs or remind them to take their medicine.

Serious advancements have been observed in the development of complex **robotic devices to fulfill the needs of elderly people**. With „Pillo", one of the first home health robots is being developed. He helps people of all ages to better manage their health. He can answer



health and wellness questions, connect directly with healthcare professionals, and securely manage vitamins and medication; storing, dispensing, and ordering refills when needed. His functionalities grow as he learns about the user and other household members. The robot is still in funding phase.

In view of the ageing population, robotics could fill the gap in the nursing workforce in the long run. Japan, for example, is planning to spread acceptance of robotic aid among care recipients and the German Fraunhofer-Institut is developing and testing the Care-O-bot – a mobile robotic assistant that is designed to **assist people in domestic environments or support healthcare staff**.

Source: techemergence.com, theguardian.com, care-o-bot.de, pillohealth.com

ONLINE PHARMACY & PERSONAL CARE

The Online Pharmacy & Personal Care segment includes the sale of medical, pharmaceutical and cosmetic products via a digital channel, for example via online pharmacies.

In this chapter, the current market size, trends and expected developments of the market will be discussed. Also, shop profiles of relevant online pharmacies will be presented.

eCommerce revenues from pharmaceutical and personal care products are rising

Online Pharmacy and Personal Care: segment overview

The ePharmacy and Personal Care segment contains the online sale of **medicine, cosmetics, and pharmaceutical and personal care** products (inclusive of prescription drugs for the private end user (B2C)). The market segment also includes **medical products for private use** (e.g. blood pressure monitors, disinfectants, dressings).

Alongside medicines, this market segment also includes cosmetic, cleaning and care products, and nutrition. All monetary figures refer to the annual gross revenue and do not factor in shipping costs. Major sales channels are **online pharmacies** or **online shops** of drugstores and other individual traders (e.g. cvs.com, walmart.com).

Online sales of medication become **increasingly relevant** within the eHealth market. Consumers are able to buy medication and personal care products at lower prices, for instance **from abroad**. Retailers often offer discounts since they profit from higher margins. For older patients or people suffering from chronic diseases, who need their medicine regularly, it is more **convenient** to order it online.

Key takeaways

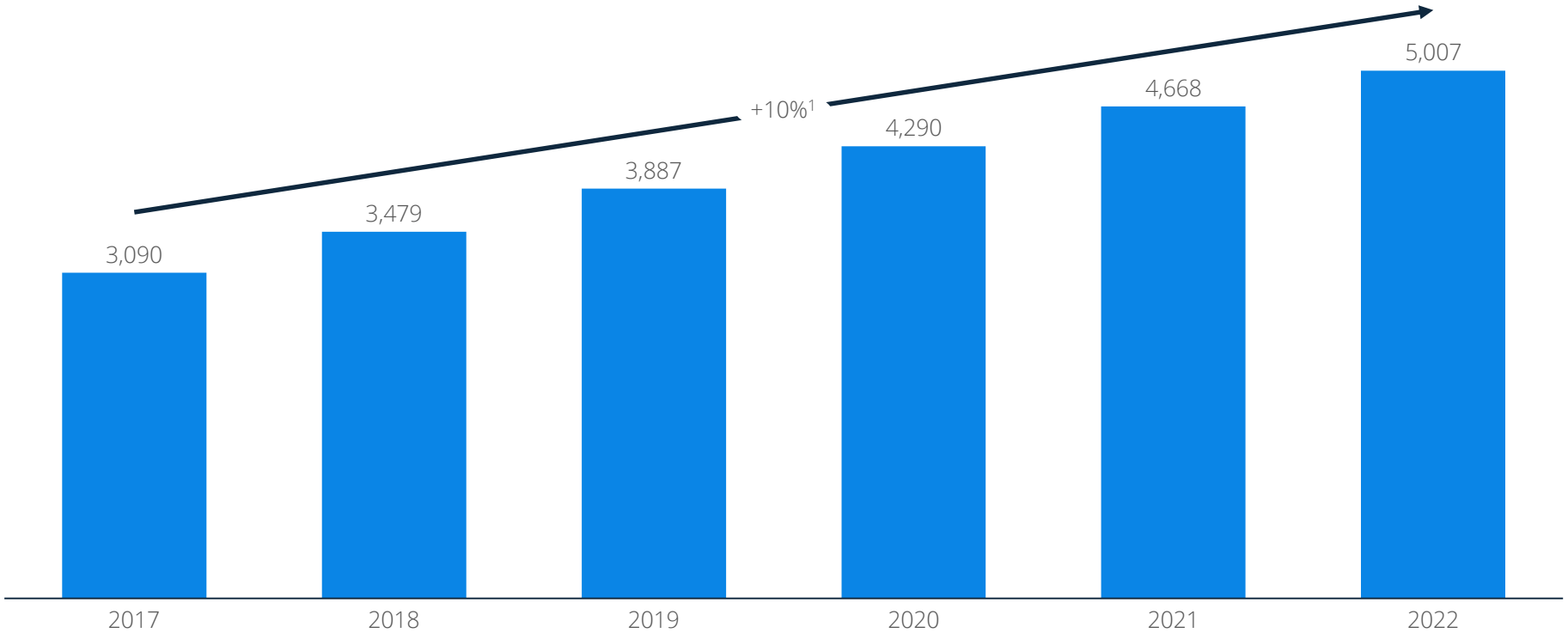
- Revenues in the segment ePharmacy & Personal Care amount to US$3,090 million in 2017
- Revenue is expected to show an annual growth rate (CAGR[1] 2017-2022) of 10.1%
- The average revenue per user is US$200 in 2017
- From an international perspective most revenue is generated in the United States (US$34,986 million in 2017)

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

With a CAGR[1] of 10% up to 2022, Medication and Personal Care is a fast-growing eCommerce category

Online Pharmacy and Personal Care: market size and future developments (1/2)

Revenues of the ePharmacy and Personal Care Segment in million US$

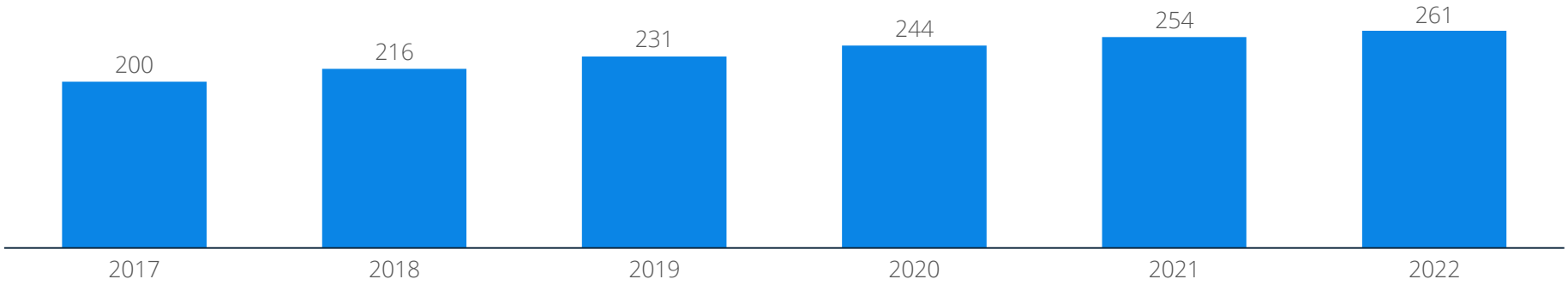


1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

The amount of people buying medication online is going to increase continuously

Online Pharmacy and Personal Care: market size and future developments (2/2)

Revenue per user in US$



Users in million

Segment	2017	2018	2019	2020	2021	2022	CAGR[1] 17 – 22
Total	15.4	16.1	16.9	17.6	18.4	19.2	4.4%

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

boots.com is the biggest online player specialized in medical and personal care products in the UK market

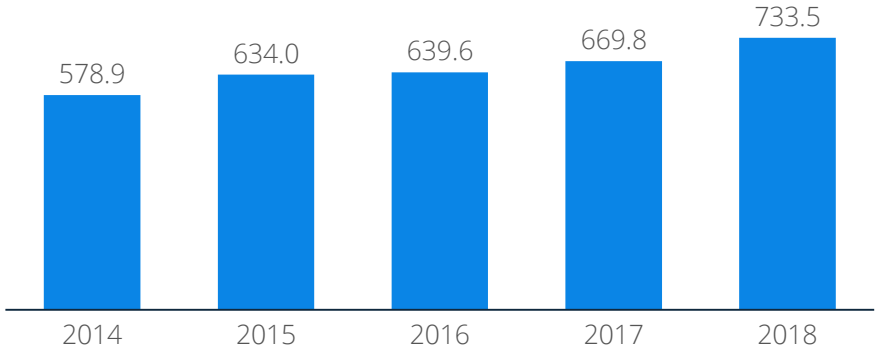
Shop profile: boots.com

Find out more on:
ecommerceDB.com

Key Facts

Headquarters:	Beeston, UK
Launch:	2000
Global eCommerce net sales '17:	US$0.67 billion
Main category:	Food & Personal Care

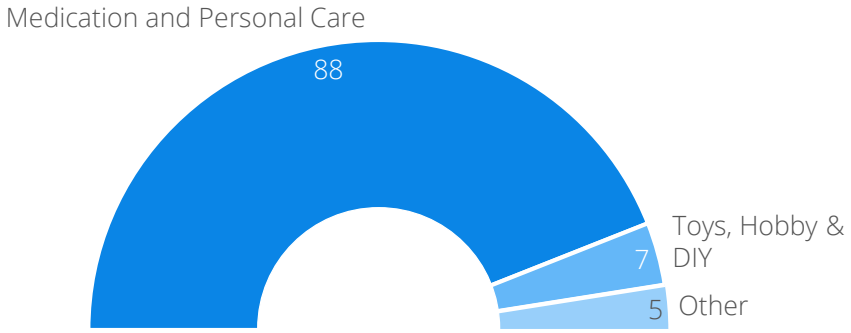
Global eCommerce net sales in million US$



Background

boots.com, operated by The Boots Company Plc, is an internationally-focused online store that generates eCommerce net sales primarily in the United Kingdom as well as in the United States and Canada. With regards to the product range, boots.com achieves the greatest part of its eCommerce net sales in the "ePharmacy & Personal Care" category. Furthermore, products from the "Toys, Hobby & DIY" category are part of the offer.

Revenue split by categories in %



Source: ecommerceDB

lloydspharmacy.com is a major online pharmacy in the UK

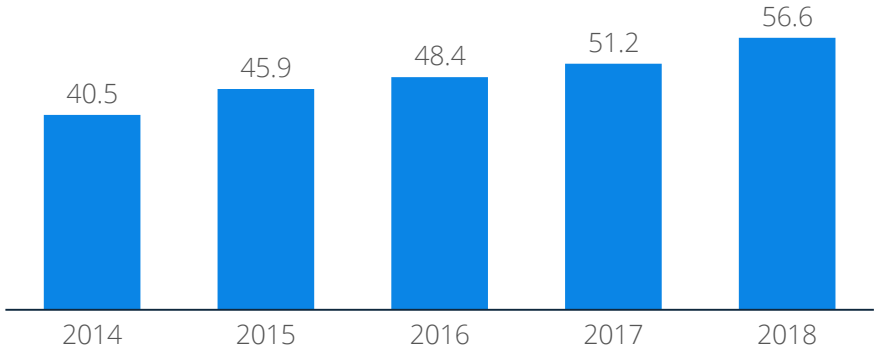
Shop profile: lloydspharmacy.com

Find out more on:
ecommerceDB.com

Key Facts

Headquarters:	Coventry, UK
Global eCommerce net sales '17:	US$51.2 million
Main category:	Food & Personal Care

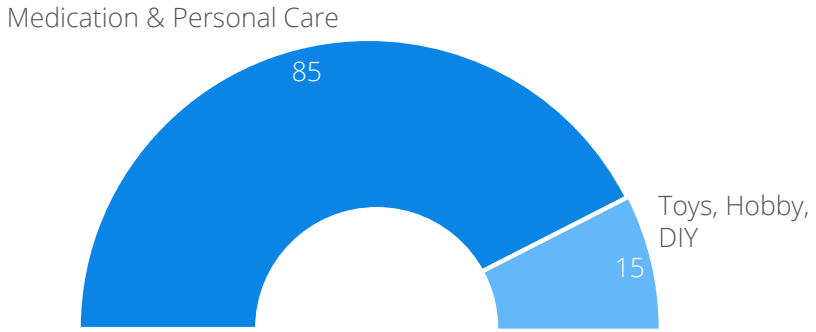
Global eCommerce net sales in million US$



Background

Kingdom. Other countries only account for a small share of eCommerce net sales, e. g. the United States. With regards to the product range, lloydspharmacy.com achieves the greatest part of its eCommerce net sales in the "ePharmacy & Personal Care" category. Furthermore, products from the "Toys, Hobby & DIY" category are part of the offer.

Revenue split by categories in %



Source: ecommerceDB

HEART FAILURE

The Heart Failure segment includes connected medical devices designed for patients suffering from heart failure to use at home (smart devices) as well as digital applications for smartphones and tablets.

In this chapter, the current market size, trends and expected developments of the market will be discussed. Also, the trend of telemonitoring in eHealth will be presented.

eHealth Heart Failure products are projected to reach a market volume of US$24 million by 2022

Heart Failure: segment overview

The Heart Failure segment covers the user and revenue development of two eHealth product categories for people with **chronic heart failure**. Hardware and software solutions for healthcare professionals, e.g. medical equipment for hospitals and doctors' surgeries, are not included.

Smart Devices covers medical devices (hardware) which are equipped with dedicated interfaces or SIM cards that transmit measurement data across a **wireless connection** (e.g. via mobile networks, WiFi, Bluetooth, etc). In the context of heart failure therapy, there are various devices that can be used, for example connected weighing scales and Tele-ECG-cards or even **connected pacemakers and defibrillators**. The selection of suitable equipment is dependent on the **severity** of the heart failure and the presence of **other medical conditions**. Connected devices for heart patients are often used in combination with a telemedical monitoring service.

Apps contains heart function monitoring apps for instance for the collection of data and **self-management** of heart conditions. The user base covers paying customers only, i.e. users who pay for app downloads, premium/full versions and in-app purchases. The revenue figures only include revenues generated by paid app downloads, premium/full versions and in-app purchases. Furthermore, apps that come together with connected devices are excluded.

Key takeaways

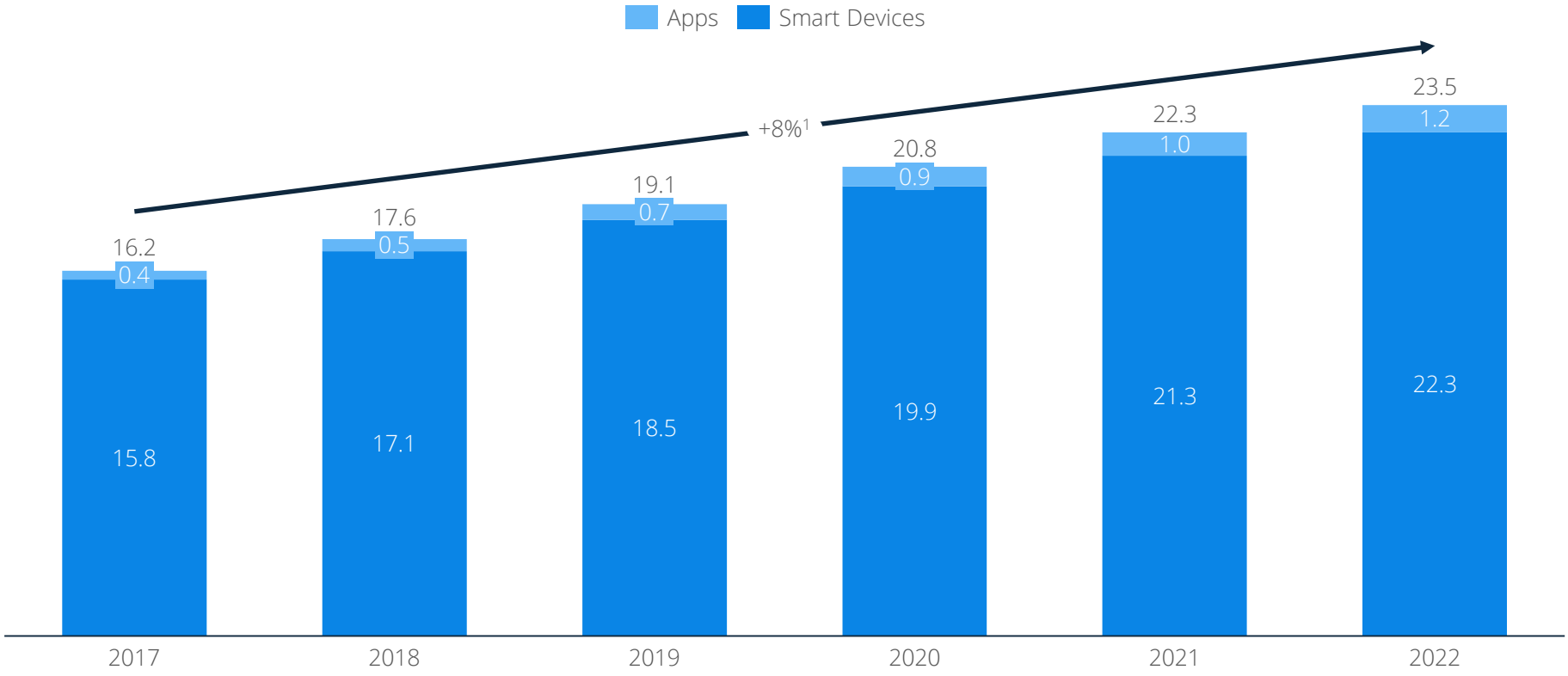
- Revenues in the segment eHealth solutions for Heart Failure amount to US$16 million in 2017
- Revenue is expected to show an annual growth rate (CAGR[1] 2017-2022) of 7.8%, resulting in a market volume of US$24 million by 2022
- The average revenue per user (ARPU) currently amounts to US$21 in Apps and US$194 in Devices
- From a international perspective, most revenue is generated in the United States (US$115 million in 2017)

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Revenues of Apps are increasing at a CAGR[1] of 26%

Heart Failure: market size and future developments (1/3)

Revenue in million US$



1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

The amount of App users is increasing at a CAGR[1] of 27 from 2017 to 2022

Heart Failure: market size and future developments (2/3)

Paying users in thousand

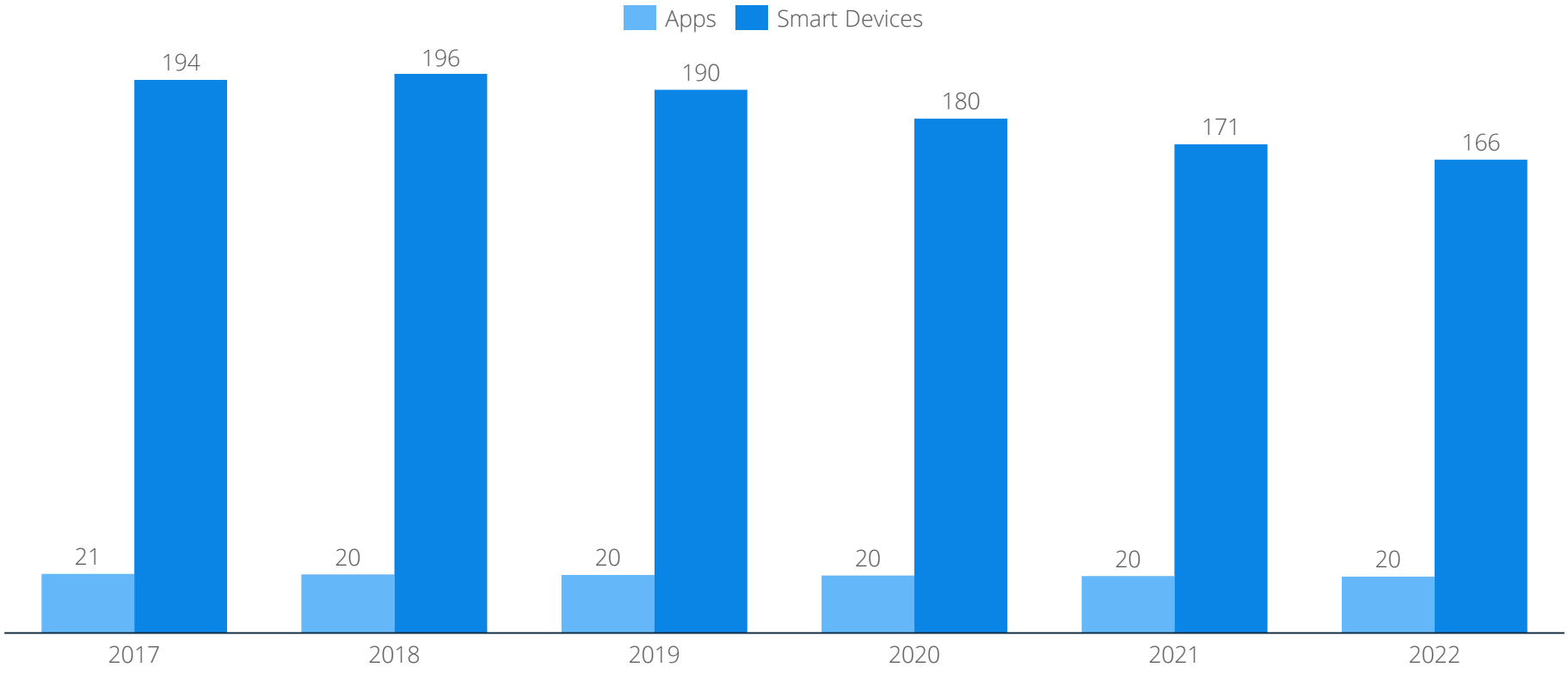
Segment	2017	2018	2019	2020	2021	2022	CAGR[1] 17 – 22
App	19	26	34	43	52	61	26.9%
Device	82	87	97	111	124	135	10.5%

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Prices will keep falling in the future

Heart Failure: market size and future developments (3/3)

Average revenue per user in US$



Source: Statista Digital Market Outlook 2018

Telemonitoring significantly improves monitoring of patients with heart failure

Deep dive: telemonitoring

Telemonitoring is one of the latest trends in eHealth. It is defined by the remote exchange of data between clinicians and their patients, using electronic information and telecommunications technologies. This definition includes among other things video-consultation, store-and-forward imaging, streaming media as well as terrestrial and wireless communications. These services lead to a higher **time efficiency** and **more convenience** at **lower costs**.

In addition, the innovations 'activity monitoring' as well as 'remote medication monitoring' are especially used to support patients with **long-term conditions** by exchanging data between them and their doctors to assist in diagnosis and monitoring. Data can for instance be measured by wearables or smart clothes.

Assuring a reliable monitoring practice between patients and doctors can also reduce emergencies and death rates by up to 45% according to a UK Department of Health study.

When it comes to **heart failure**, telemonitoring is particularly relevant, since patients are able to make measurements at home and send their **health information**, like heart rate, weight and blood pressure, to a doctor's office or a clinic where healthcare professionals read out the data and intervene if necessary.

This offers various **advantages**. From a patient's perspective, the frequent information and additional insights offers greater control over their own health. Plus, if the monitoring system provides the necessary communication channels, care providers can send further information like educational videos or motivational messages, leading to a higher degree of **self care and awareness**.

Source: HealthIT; Health Data Management, Global Market Insights, philipps.com

DIABETES

The Diabetes segment includes connected medical devices designed for diabetes patients to use at home (smart devices) as well as digital diabetes applications for smartphones and tablets.

In this chapter, the current market size, trends and expected developments of the market will be discussed. Also, a best practice example will be presented.

eHealth Diabetes products will generate an estimated revenue of US$8 million in 2018

Diabetes: segment overview

The Diabetes segment includes the user and revenue development of two eHealth product categories for people with diabetes. Hardware and software solutions for healthcare professionals, e.g. medical equipment for hospitals and doctors' surgeries, as well as professional health services like telemedical monitoring are not included.

The Smart Devices segment covers medical diabetes devices (hardware), which are equipped with **dedicated interfaces or SIM cards** that transmit measurement data across a wireless connection (e.g. via mobile networks, WiFi, Bluetooth): e. g. **connected** glucose meters or connected insulin injection devices. The measurement data can be sent to a **smartphone** and be synchronized with an **app**. Revenues from non-connected supplies, e.g. test strips, are excluded.

The Apps segment contains diabetes apps, e.g. diabetes diaries that assist in **self-management**, and **service-oriented** apps, which not only collect but also analyze health data, and make recommendations based on this analysis. The user base covers paying customers only, i.e. users who pay for app downloads, premium/full versions and in-app purchases. Users of **advertising-funded** apps or apps that come with a smart device are not included. The revenue figures only include revenues generated by paid app downloads, premium/full versions and in-app purchases. Furthermore, apps that come together with connected devices are excluded.

Key takeaways

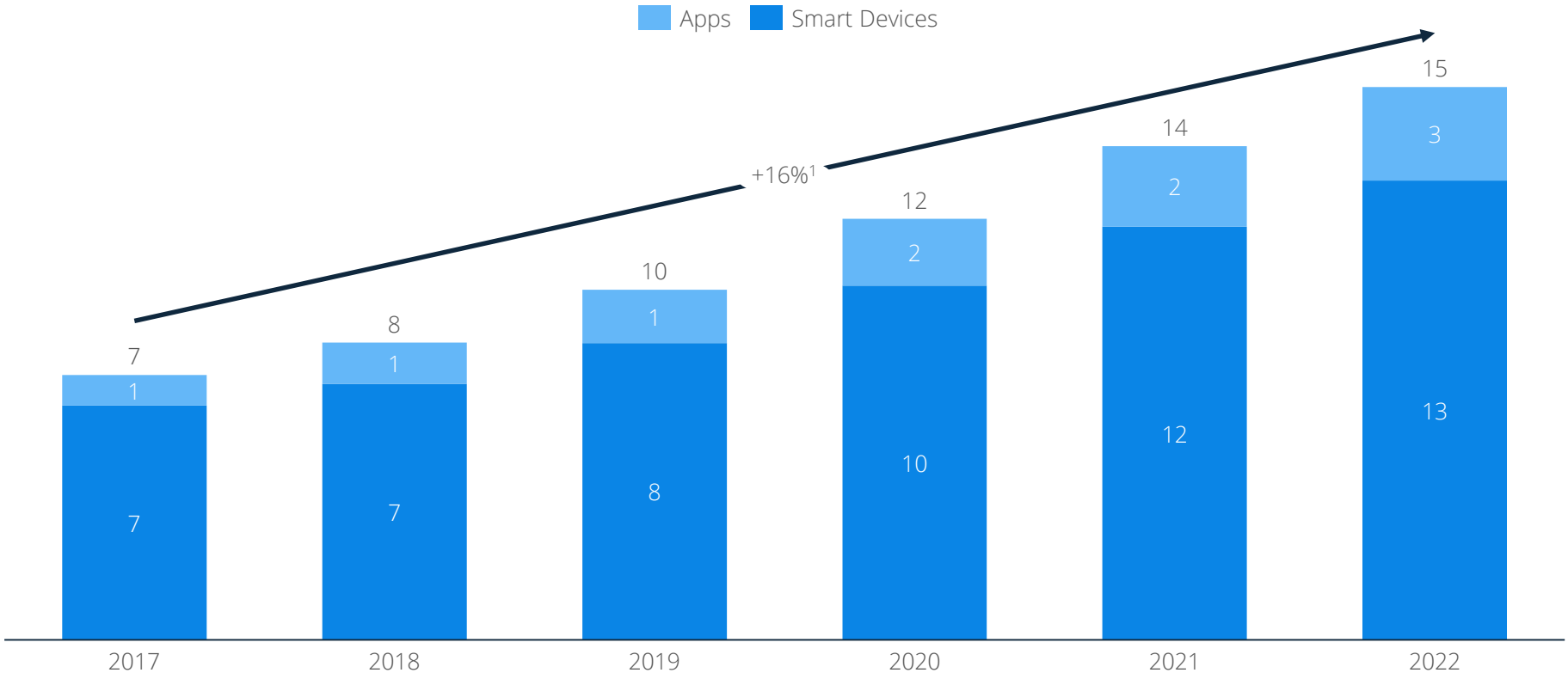
- Revenue in the segment eHealth solutions for Diabetes amounts to US$7 million in 2017
- Revenue is expected to show an annual growth rate (CAGR[1] 2017-2022) of 15.9%, resulting in a market volume of US$15 million by 2022
- The average revenue per user (ARPU) currently amounts to US$23 in apps and US$70 in devices
- From an international perspective most revenue is generated in the United States (US$121 million in 2017)

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Revenues of Smart Devices for diabetes are projected to rise at a CAGR[1] of 16%

Diabetes: market size and future developments (1/3)

Revenue in million US$



1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

191 thousand Diabetes Device users are expected by 2022

Diabetes: market size and future developments (2/3)

Paying users in thousand

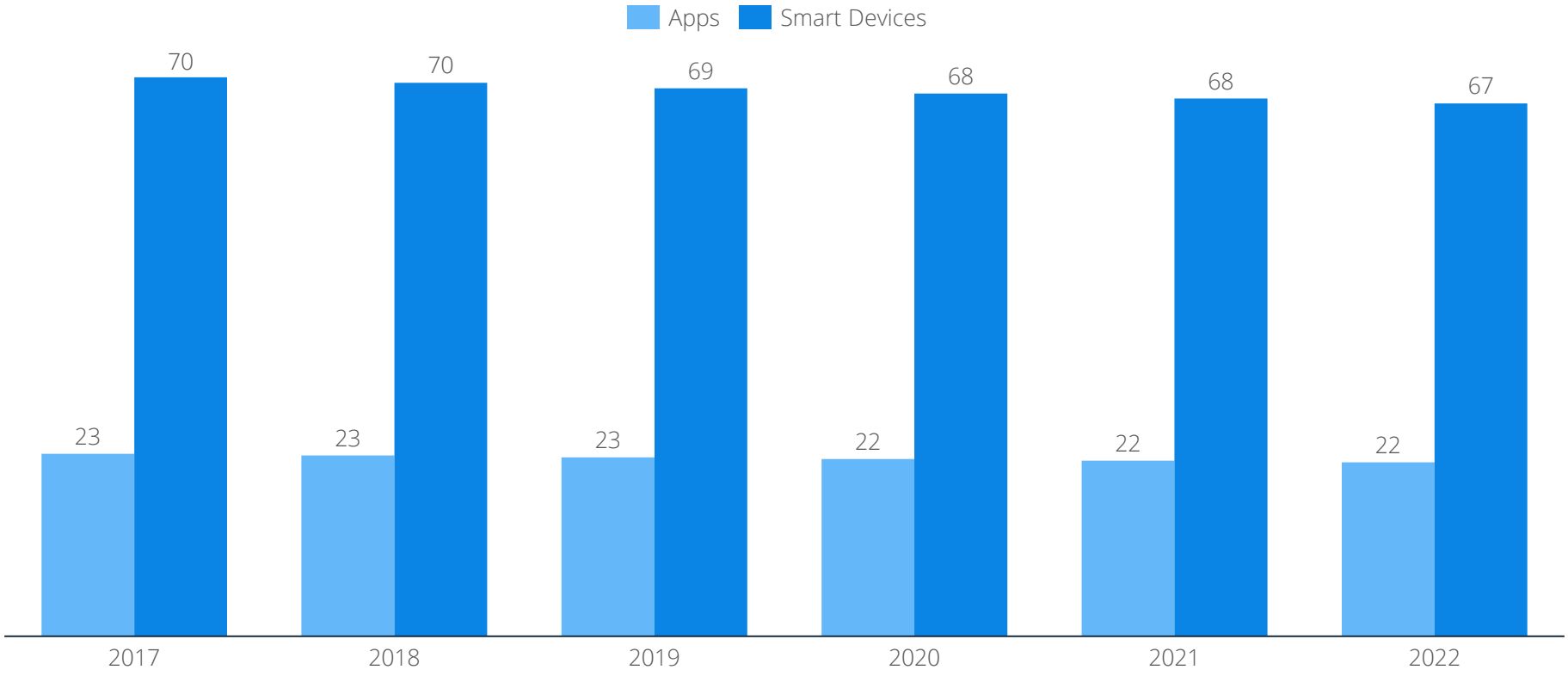
Segment	2017	2018	2019	2020	2021	2022	CAGR[1] 17 – 22
App	37	51	66	84	102	119	26.3%
Device	93	103	120	145	171	191	15.5%

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Smart Devices for Diabetes will constantly generate the highest average revenue per user

Diabetes: market size and future developments (3/3)

Average revenue per user

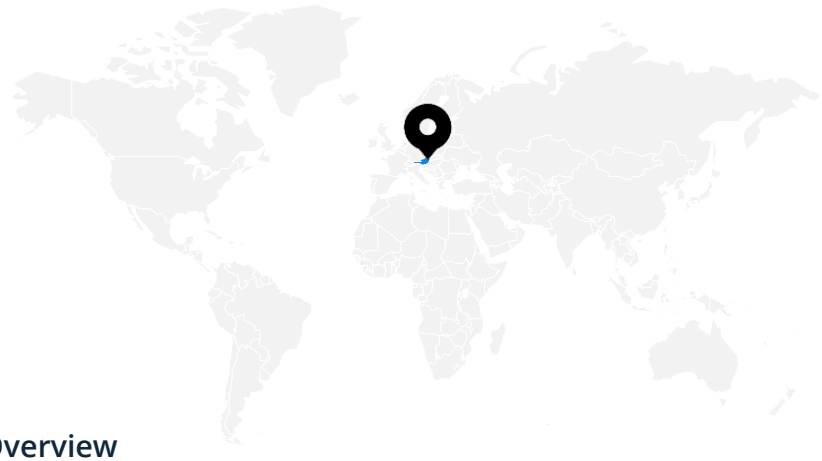


Source: Statista Digital Market Outlook 2018

The mySugr diabetes app reached over one million users in May 2017

Best practice: mySugr

Headquarters



Overview

- Headquarters: Vienna, Austria
- Total mySugr accounts: >1,000,000 (2017)
- Employees: >11.500 (2017)
- Active countries: >52 (2017)
- Founded: 2012

Background

mySugr is one of the leading providers in the field of digital diabetes management. The start-up started with the mySugr app and offers a monthly subscription bundle for e. g. around US$40 in the U.S. They are also in cooperation with various health insurance providers so that costumers can get there subscription fees refunded.

The bundle contains:

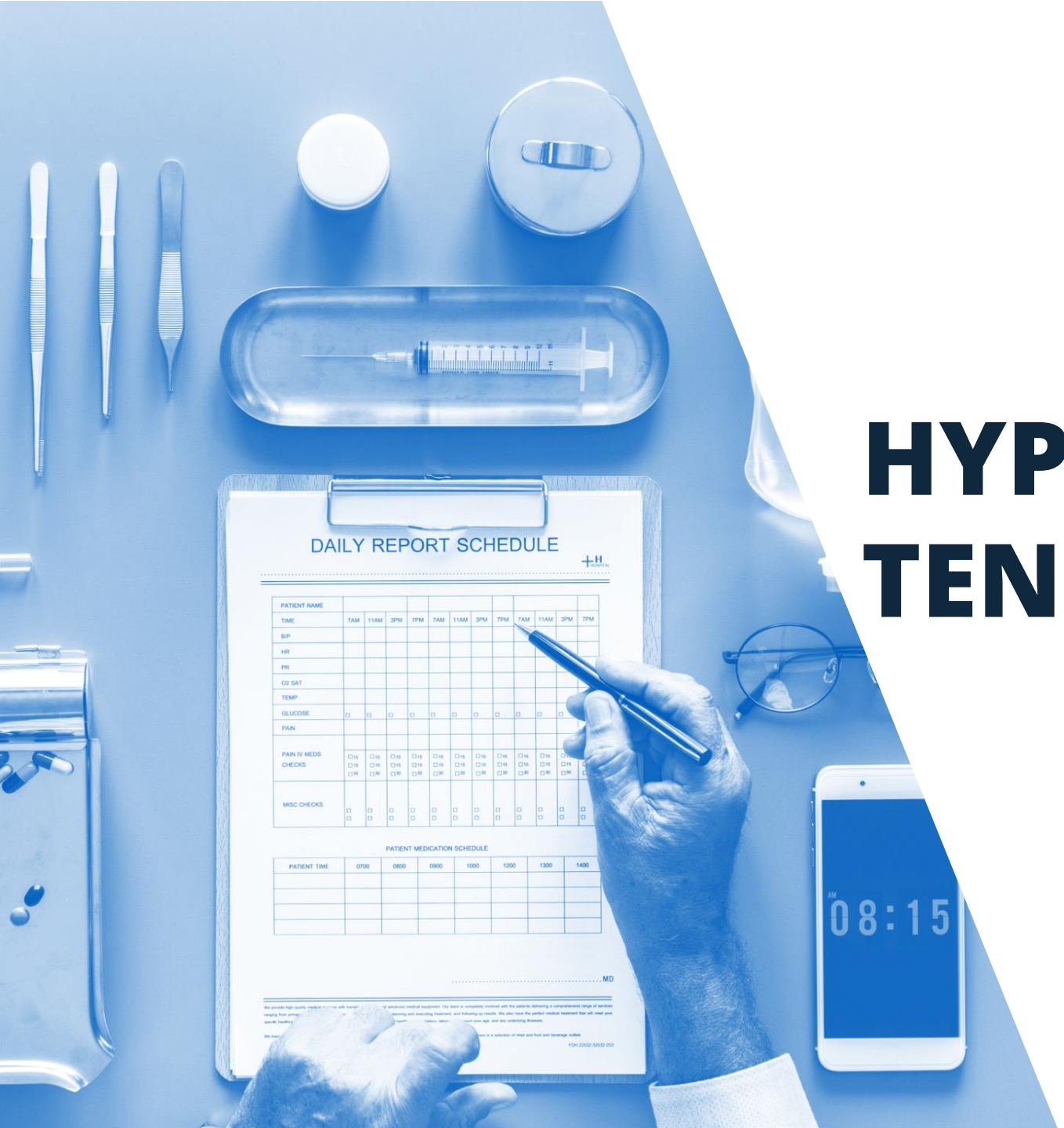
- The full version of the app plus a coaching service
- A glucometer that can be connected via Bluetooth
- Unlimited test stipes and lancets

Analyst opinion

mySugr is a good example of how digital services can help people with chronic conditions to manage their lives. The full version of the app does not only record therapy data such as blood sugar values, but it also helps its users to interpret the data and evaluate different scenarios. With the optional coaching service via the app, it also offers the possibility to find advice by diabetes educators anytime needed.

Altogether, the young company offers a comprehensive set of products and services for diabetes management. Its huge market potential and fast growth was also recognized by swiss pharmaceutical giant Roche, who bought the company for an estimated nine-figure sum in 2017.

Source: Company information



HYPER-TENSION

The Hypertension segment includes connected medical devices designed for hypertension patients to use at home (smart devices) as well as digital applications for smartphones and tablets.

In this chapter, the current market size, trends and expected developments of the market will be discussed. Also, the benefits of mHealth will be presented.

eHealth Hypertension products are projected to generate a revenue of US$33 million by 2022

Hypertension: segment overview

The Hypertension segment covers the user and revenue development of eHealth products for people with hypertension.

Smart Devices cover medical hypertension devices (hardware) which are equipped with dedicated **interfaces** or SIM cards that transmit measurement data across a **wireless connection** (e.g. via mobile networks, WiFi, Bluetooth, M2M technologies, NFC, BLE): for example connected blood pressure monitors, which are able to send measurement data to a smartphone. If there is a higher **monitoring** need, the data can also be sent to a telemedical service center. Revenues from **non-connected supplies** of hypertension devices, e.g. electrodes, are excluded. Hardware and software solutions for healthcare professionals, e.g. medical equipment for hospitals and doctors' surgeries, as well as professional health services like telemedical monitoring are not included, either.

The Apps segment contains **blood pressure monitoring apps**. The user base covers **paying customers** only, i.e. users who pay for app downloads, premium/full versions, and in-app purchases. Users of advertising-funded apps are not included. The revenue figures only include revenues generated by paid app downloads, premium/full versions and in-app purchases. Furthermore, apps that come together with connected devices are excluded.

Key takeaways

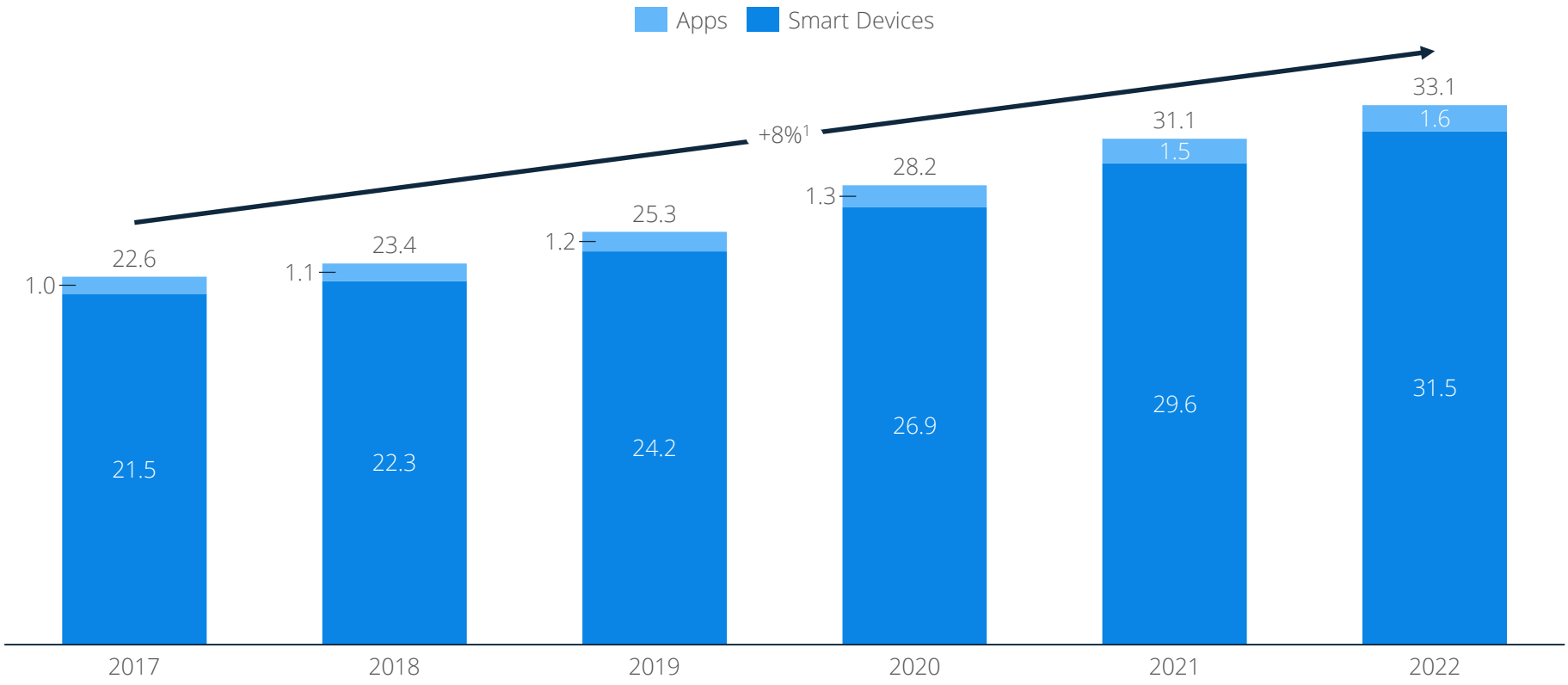
- Revenues in the segment eHealth solutions for Hypertension amount to US$23 million in 2017
- Revenue is expected to show an annual growth rate (CAGR[1] 2017-2022) of 8.0%, resulting in a market volume of US$33 million by 2022
- The average revenue per user (ARPU) currently amounts to US$3 in Apps and US$34 in Devices
- From a international perspective, most revenue is generated in the United States (US$82 million in 2017)

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Revenues of Smart Devices are increasing at a CAGR[1] of 8%

Hypertension: market size and future developments (1/3)

Revenue in million US$



1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Hypertension Devices will constantly generate the highest average revenue per user

Hypertension: market size and future developments (2/3)

Paying users in million

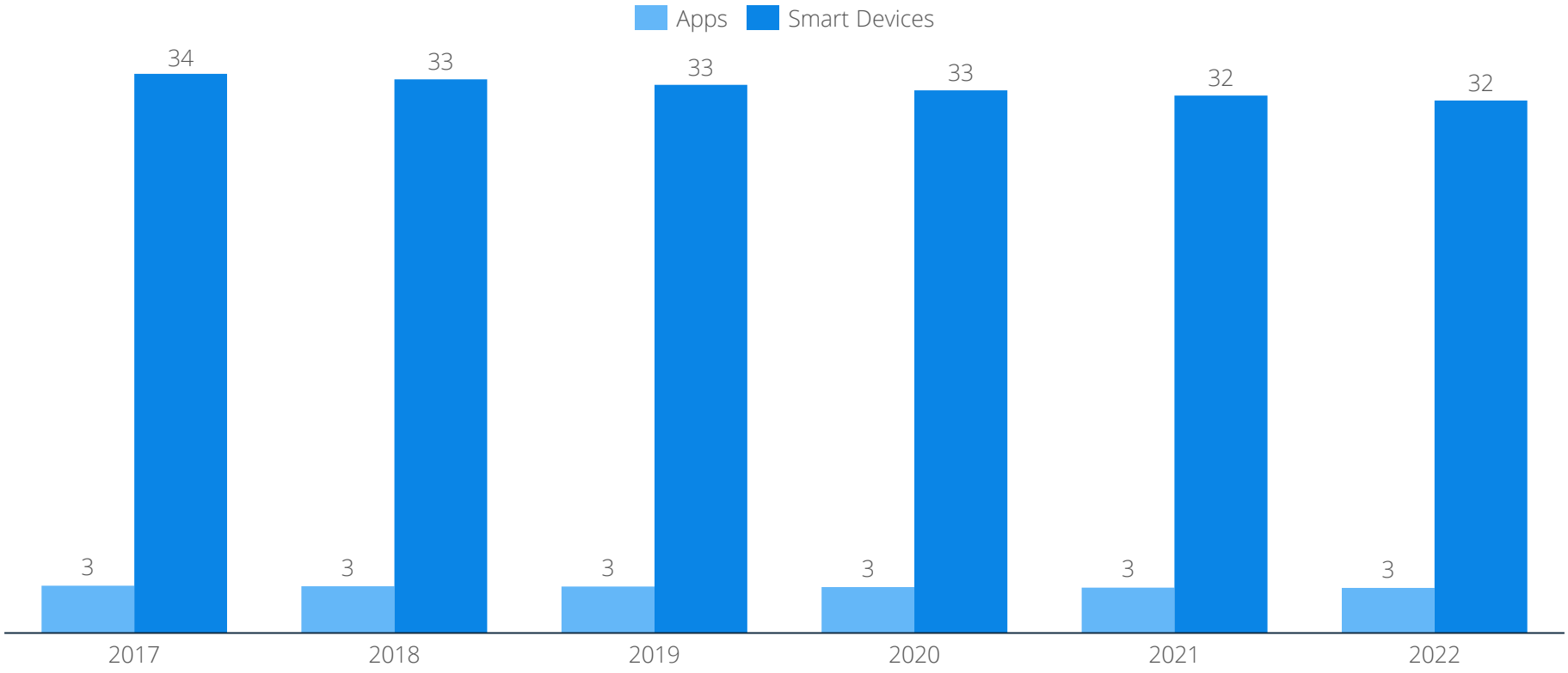
Segment	2017	2018	2019	2020	2021	2022	CAGR[1] 17 – 22
App	0.4	0.4	0.4	0.5	0.6	0.6	10.3%
Device	0.6	0.7	0.7	0.8	0.9	1.0	9.0%

1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: Statista Digital Market Outlook 2018

Due to low prices for Apps, Hypertension Devices will generate a higher average revenue per user

Hypertension: market size and future developments (3/3)

Average revenue per user in US$



Source: Statista Digital Market Outlook 2018

mHealth wearables offer constant monitoring for people with high blood pressure

Deep dive: mHealth

mHealth is an important subsegment of eHealth. It is the term to describe the usage of **wireless smart electronic devices** in the context of medical care. mHealth includes tablets and smartphones as well as all forms of wearables which work app-based. Due to the rise of both wearables and sensors, tracking of physical activities and health indicators is becoming **omnipresent**.

Since an increasing number of people use such devices, mHealth remains a driving force for the eHealth market. In terms of apps, the market offers fitness as well as **mobile medical apps**, which are mainly used to analyze, assess, store and transmit health data. As far as wearables are concerned, there is a wide range of potential applications, such as**: BP Monitoring**, Glucose Meters, Pulse Oximeters, Sleep Apnea Monitors and Neurological Monitors. There is even a patent for a diagnosis system on a wrist-mounted device which is capable of detecting cancer.

mHealth is also part of **teleHealth** since wearables and mobile home units are used for health and activity monitoring and to transfer health data to clinicians.

When it comes **to high blood pressure monitoring**, there are various mHealth wearables available. The **Nokia BPM+** or **Omron Evlolv** for example, are smart blood pressure monitors with Bluetooth connectivity that send the data to a corresponding app, which not only saves and evaluates the data but also lets users insert additional information. Furthermore, data can be shared with doctors.

With its upcoming device, **Omrom** is trying to take mobile blood pressure meters to the next level. The new **HeartGuide** is designed like a watch and promises to be the most **discreet** blood pressure device of the Omrom family while retaining high **accuracy**. The device is furthermore also able to track sleeping quality, daily activity and heart rate, to provide a holistic overview.

Source: HealthIT; Health Data Management; Global Market Insights, wareable.com, Omron

CONSUMER INSIGHTS

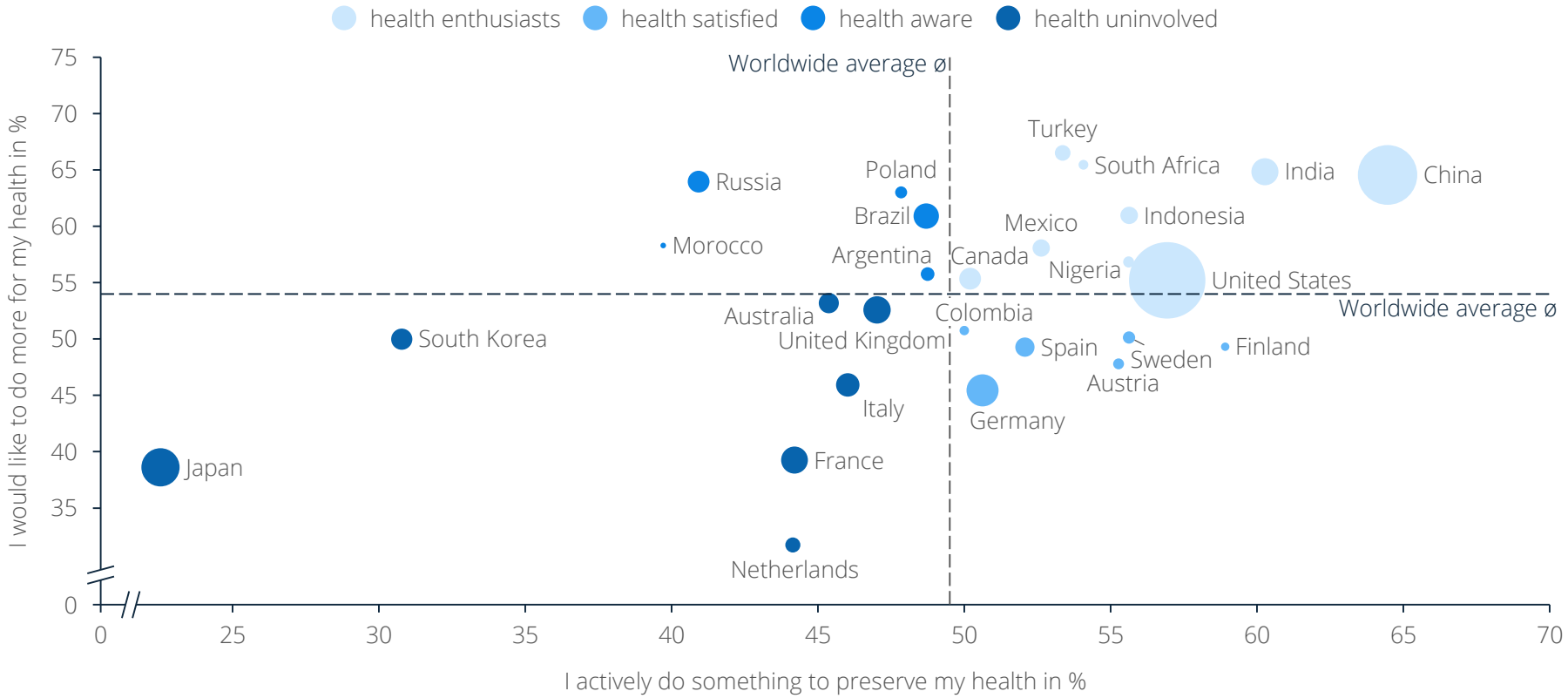
The Consumer Insights provide a broad overview and understanding of the country-specific consumer behavior in the context of eHealth.

In this chapter, results of consumer surveys regarding attitudes to and usage of eHealth-related products and services are presented. Also, an international overview of healthcare attitudes is given.

More than half of onliners around the globe wish to do (even) more for their health

Consumer attitudes: global consumer lifestyles (1/2)

Global comparison of attitudes towards personal health behavior

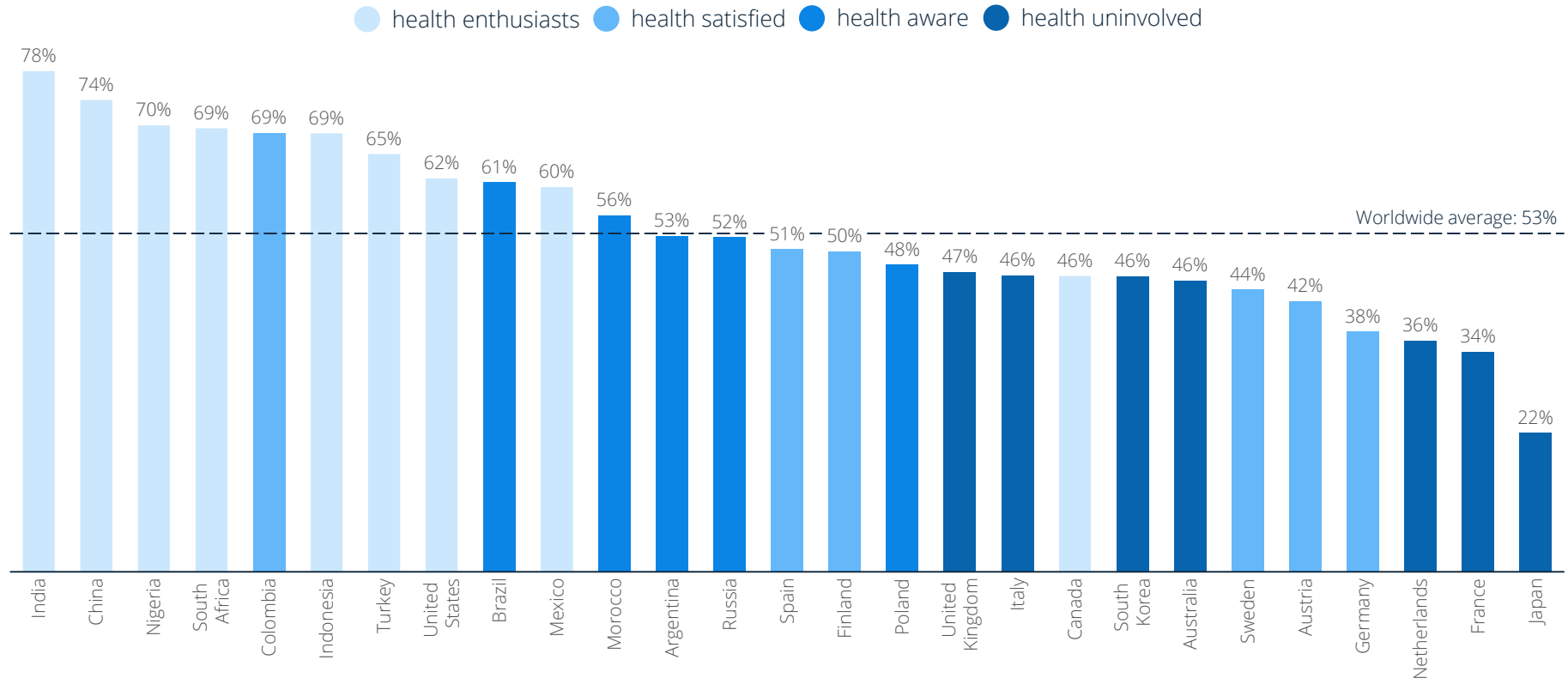


Note: Dot size depicts GDP; "Which of these statements do you agree with?"; n=31,779
Source: Statista Global Consumer Survey, data from June 2018

eHealth is used mostly by those who wish to do (even) more for their personal health

Consumer attitudes: global consumer lifestyles (2/2)

Share of respondents who use eHealth apps and/or devices

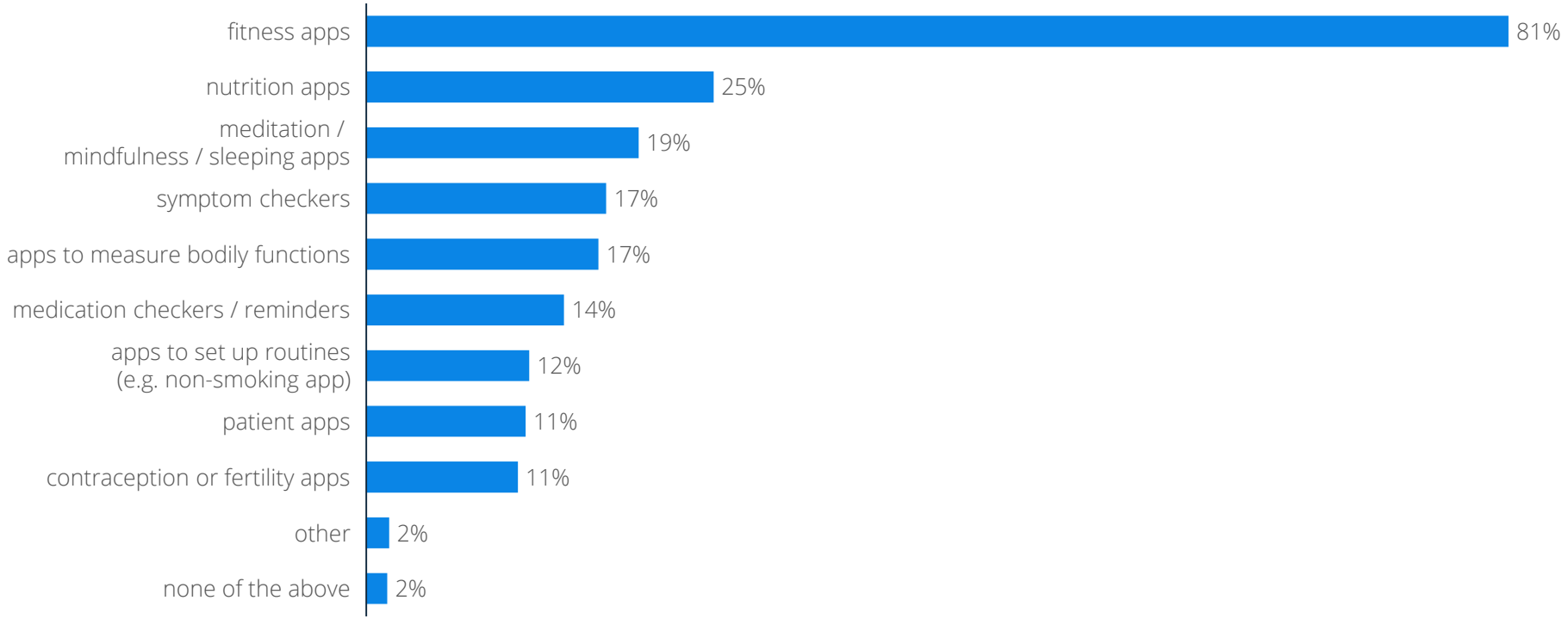


"Which of these health apps and smart health devices (connected to the internet) have you used in the past 12 months?"; Multi Pick; n=31,779
Source: Statista Global Consumer Survey, data from June 2018

Fitness apps are the most popular eHealth apps in the UK

Usage of eHealth products: preferred services and devices (1/4)

Use of eHealth apps in the past 12 months

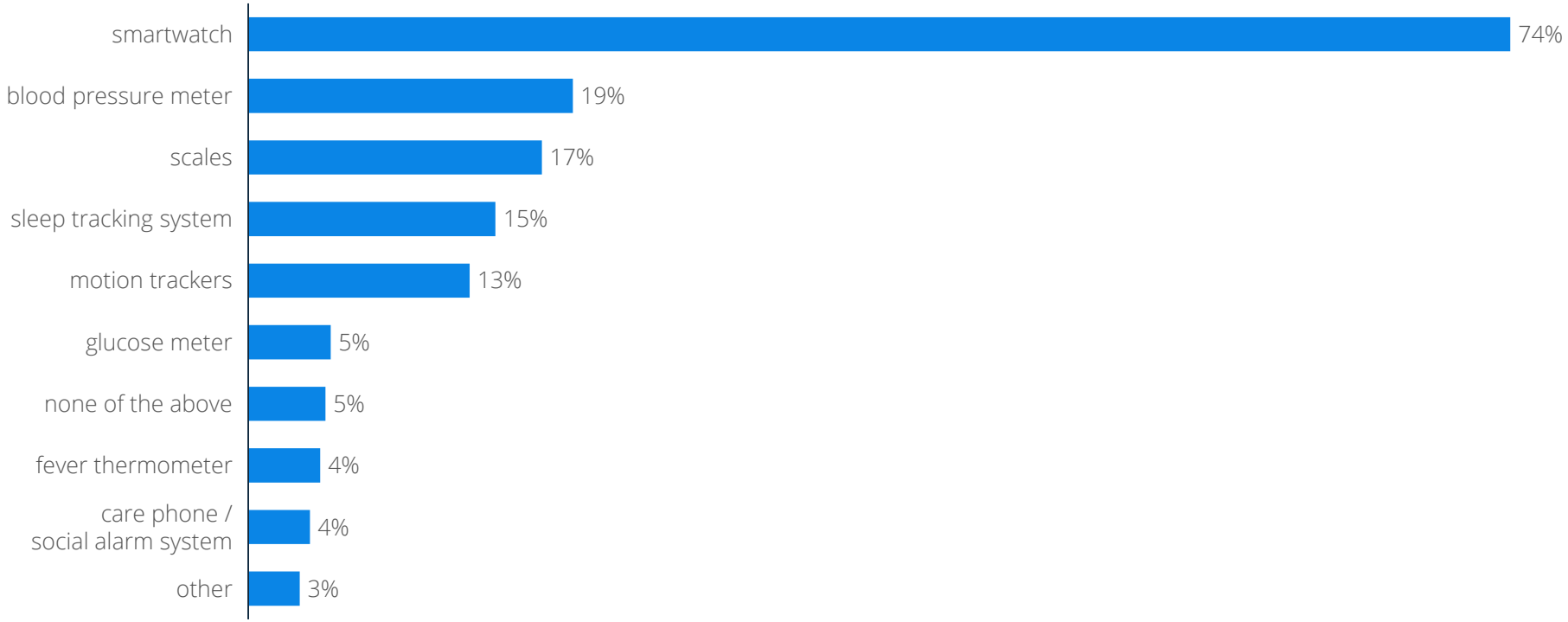


"Which of these health apps have you used in the past 12 months?"; Multiple response; n= 731, respondents who used health and/or fitness apps in the past 12 months
Source: Statista Global Consumer Survey, data from June 2018

Smartwatches are by far the most frequently used smart health devices in the UK

Usage of eHealth products: preferred services and devices (2/4)

Use of smart health devices in the past 12 months

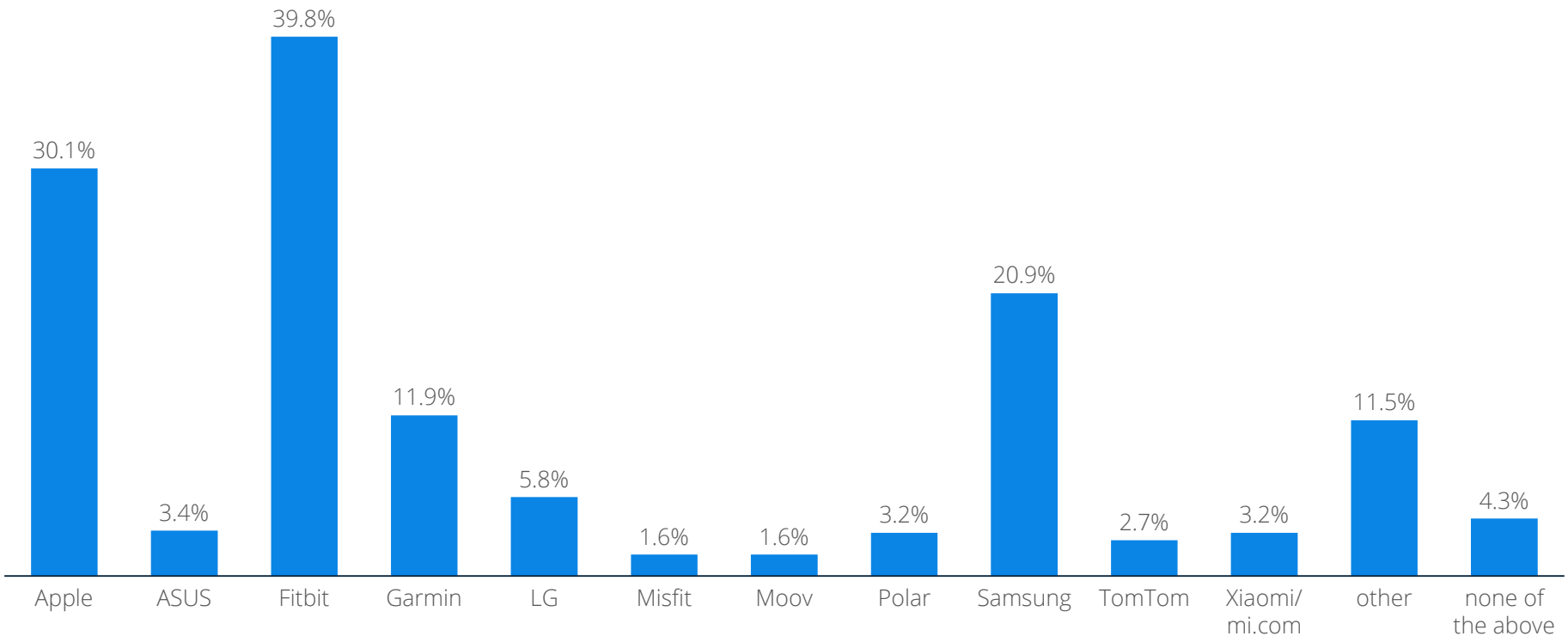


"Which of these smart health devices have you used in the past 12 months?" Multiple response; n= 331, respondents who used connected health devices in the past 12 months
Source: Statista Global Consumer Survey, data from June 2018

Fitbit and Apple smartwatches are most popular in the UK

Usage of eHealth products: preferred services and devices (3/4)

Ownership of eHealth trackers and smartwatches by brand

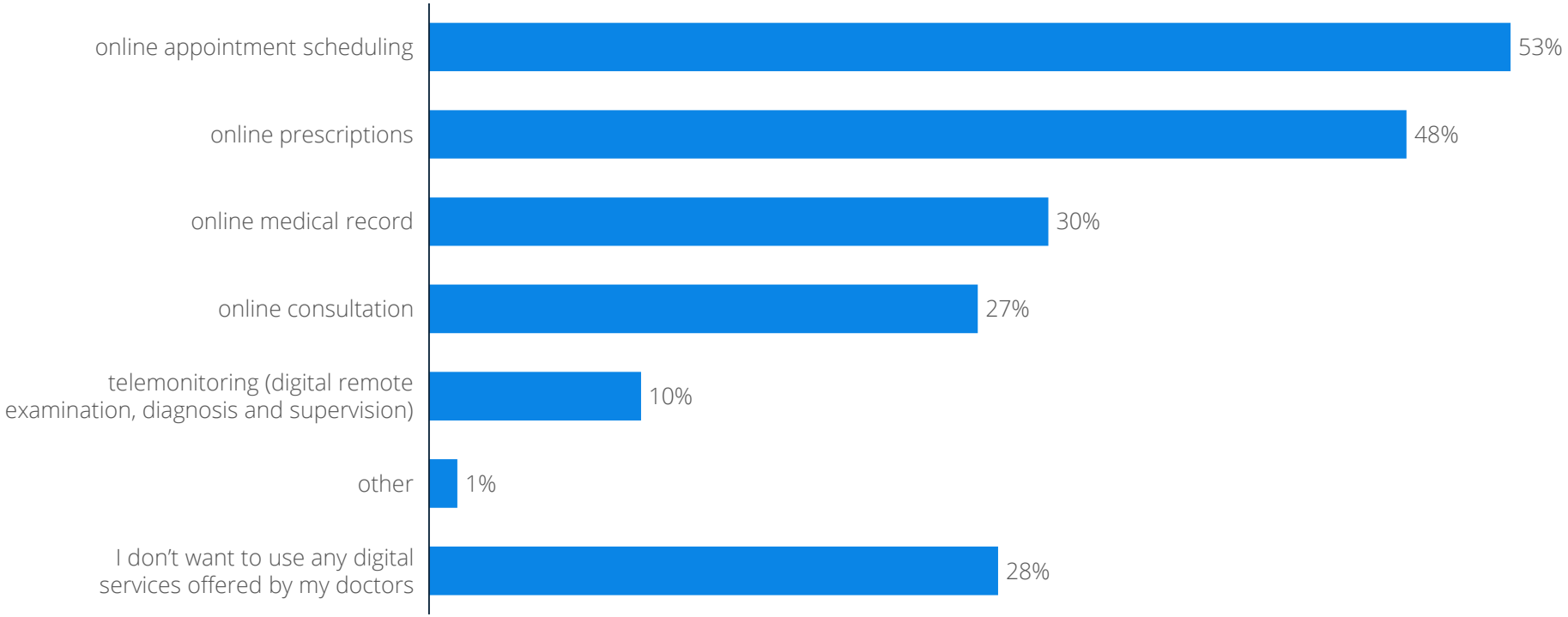


"Which of these providers do you own a fitness or health tracker or a smart watch from?"; Multiple response; n= 565, respondents who use fitness trackers, smartwatches with fitness function, motion trackers or sleep tracking systems
Source: Statista Global Consumer Survey, data from June 2018

53% in the UK would use an online appointment scheduling service by their doctor

Usage of eHealth products: preferred services and devices (4/4)

Use and willingness to use digital services offered by the doctor

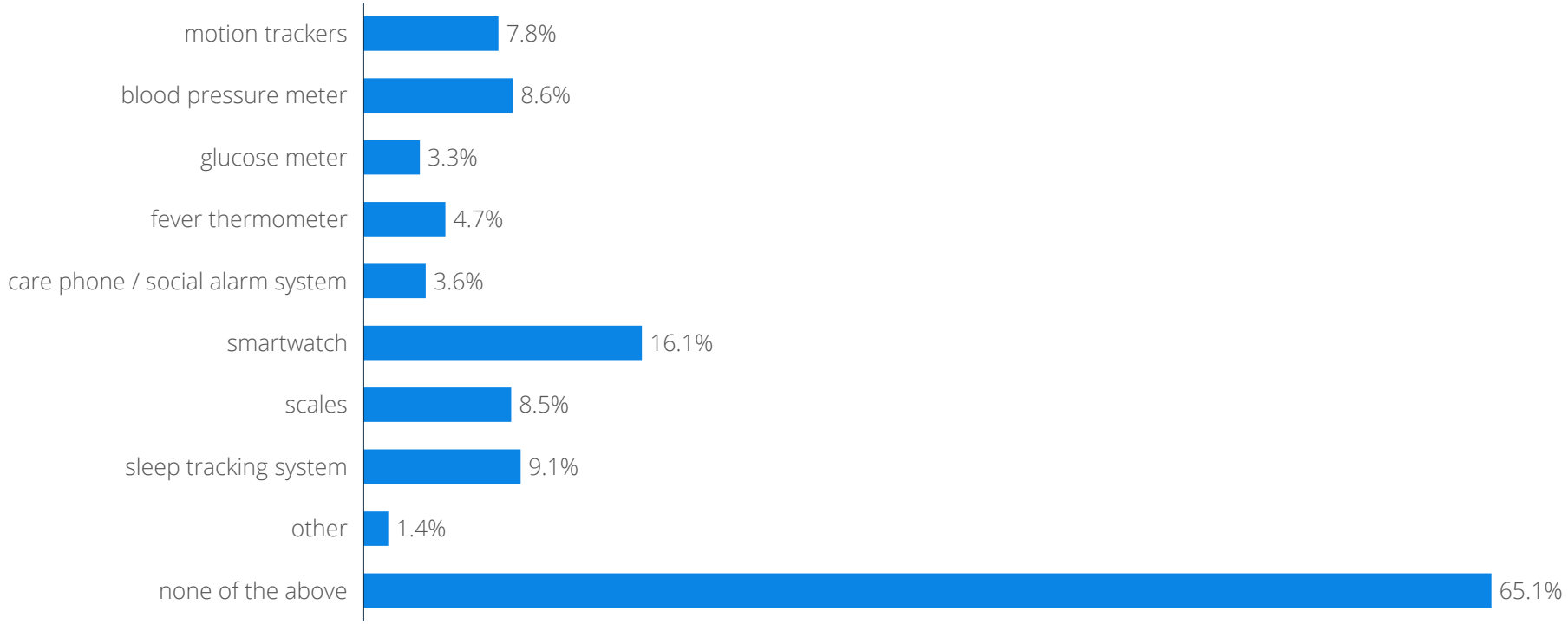


"Which of these digital services offered by doctors would you like to use or do you already use regularly?"; Multiple response; n= 2027
Source: Statista Global Consumer Survey, data from June 2018

Around 65% in the UK are not planning on buying an eHealth tracker or a smartwatch

Limitations of the eHealth market: consumer refusal (1/3)

Intention of purchasing eHealth smart devices in the next 12 months

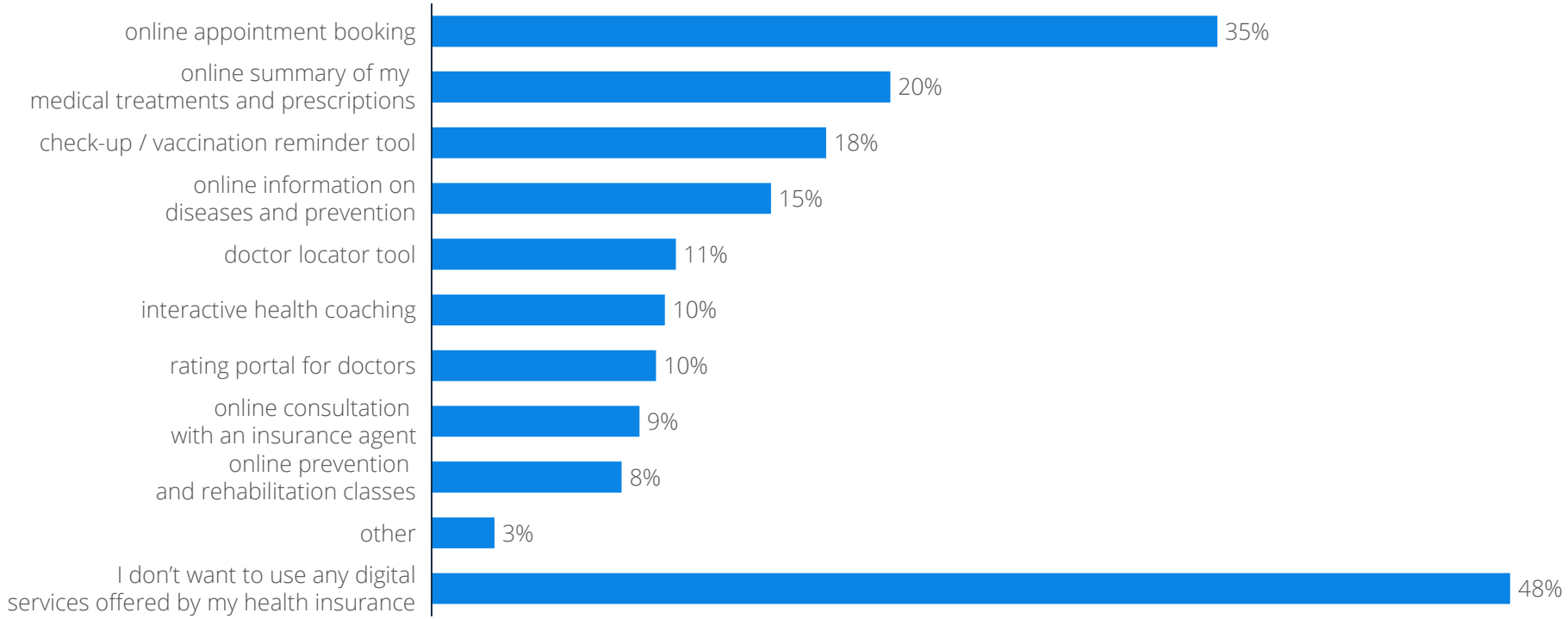


"Which of these smart health devices (connected to the internet) do you plan to buy in the next 12 months?"; Multiple response; n= 2027
Source: Statista Global Consumer Survey, data from June 2018

48% in the UK do not want to use any digital services offered by their health insurance provider

Limitations of the eHealth market: consumer refusal (2/3)

Use and willingness to use digital services offered by the health insurance provider

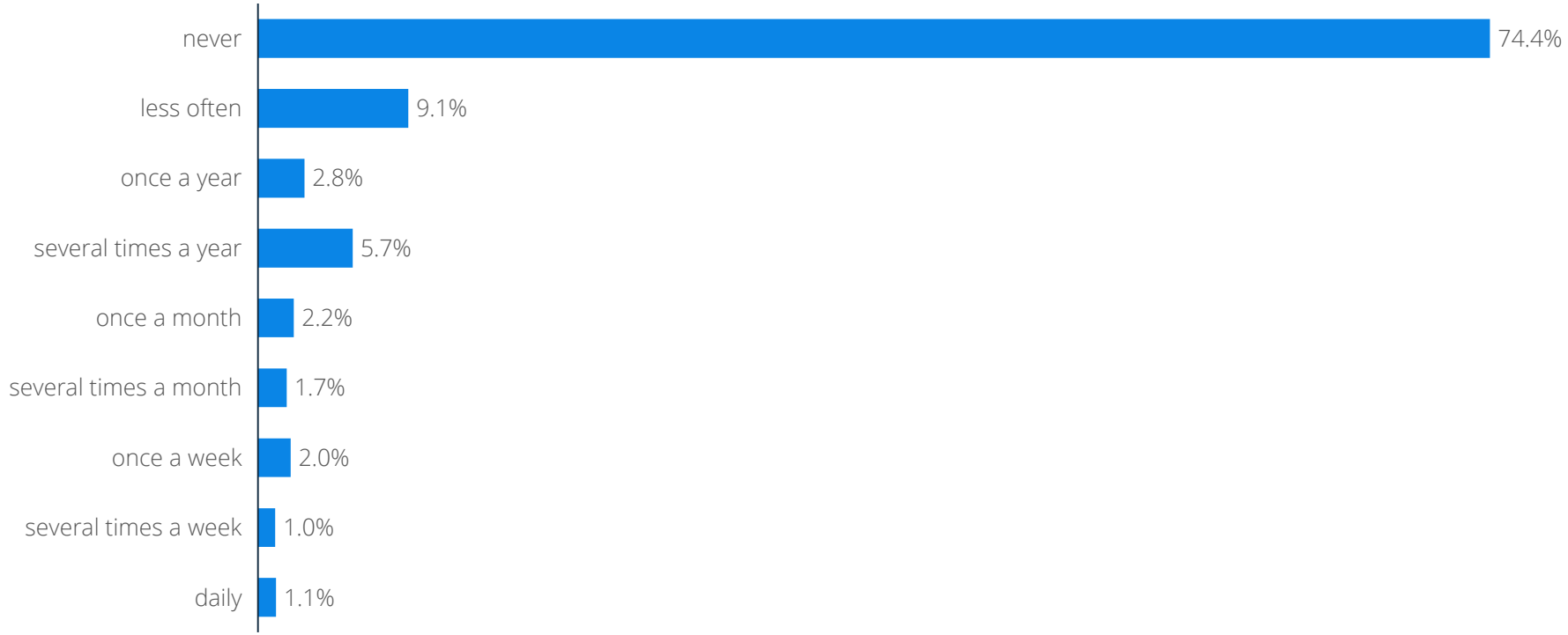


"Which of these digital services offered by your health insurance provider would you like to use or do you already use regularly?"; Multiple response; n= 2027
Source: Statista Global Consumer Survey, data from June 2018

74.4% in the UK do not buy medication online

Limitations of the eHealth market: consumer refusal (3/3)

Shopping frequency in online pharmacies



"How often do you buy medicine online?"; Multiple response; n= 2027
Source: Statista Global Consumer Survey, data from June 2018

About the Statista Digital Market Outlook

9 markets, 35 segments & 85 sub-segments

Digital Media
Video-on-Demand, Digital Music, Video Games, ePublishing

FinTech
Digital Payments, Alternative Financing, Alternative Lending, Personal Finance

eTravel
Online Travel Booking, Mobility Services

eServices
Event Tickets, Fitness, Dating Services, Food Delivery

eHealth
Fitness, AAL, ePharmacy, Heart Failure, Diabetes, Hypertension

Connected Car
Connected Hardware, Vehicle Services, Infotainment Services

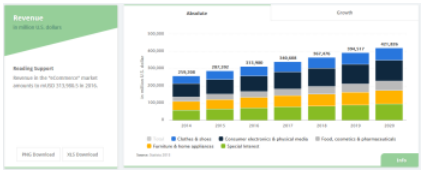
Smart Home
Control and Connectivity, Comfort and Lighting, Security, Home Entertainment, Energy Management, Smart Appliances

eCommerce
Fashion, Electronics & Media, Food & Personal Care, Furniture & Appliances, Toys, Hobby & DIY

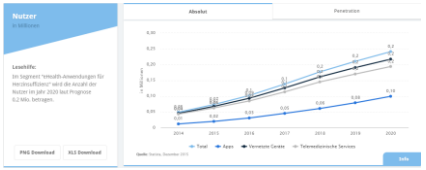
Digital Advertising
Banner Ads, Video Ads, Search Ads, Social Media Ads, Classifieds

Details

- 50+ countries & regions
- Direct access & downloads
- 7-Year coverage: 2016 – 2022
- Revenue forecasts



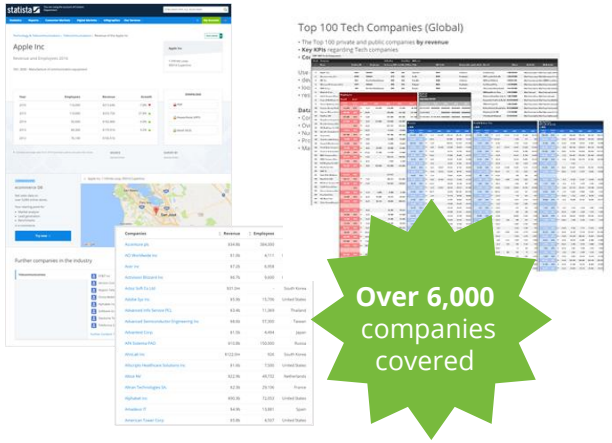
- User count & penetration



- Comparable data

Statista Toplists and Company Database

Find information on top companies worldwide



... and thousands more!

Your starting point for further market assessment

- Quickly research basic data
- Gain insights into foreign markets
- Develop a lead list of major corporations

Most important company key figures

- Address information
- Revenue
- Growth rates
- Number of employees

... in a given industry

- Tech
- Banking & Finance
- Construction
- Automotive
- ... and many more!

... in a given region

- Global
- Germany
- U.S.
- Southeast Asia
- ... and many more!

Statista Toplists and Company Database are part of the Statista Corporate Account

more information

Author, Imprint, and Disclaimer

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Dennis Becker graduated in Economics and Sociology with a focus on applied quantitative economics.

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