



eHealth Report U.S.

Statista Digital Market Outlook – Market Report

September 2018

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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."**

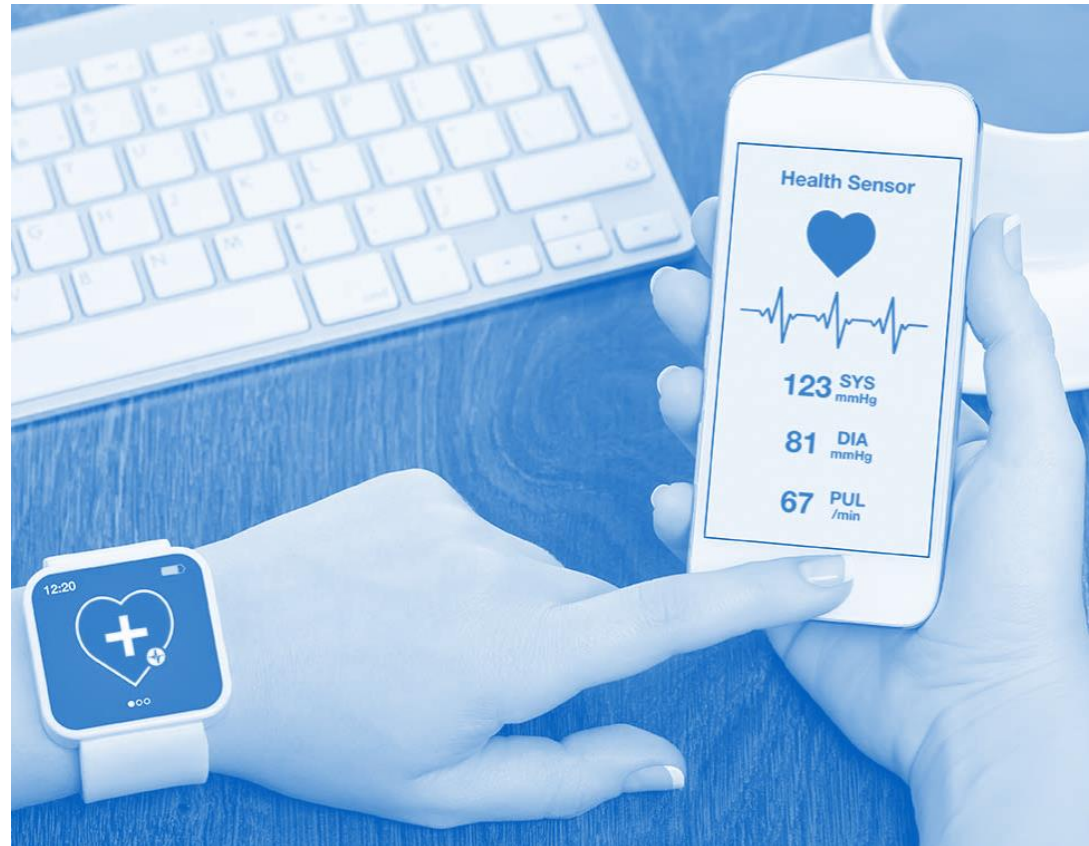
The field of eHealth is wide and it is not simply possible to cover all areas that represent the eHealth market in its entirety. Therefore, this report contains selected, most relevant eHealth areas with certain examples:

Health surveillance:

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

Treatment:

- Online medication
- Heart failure
- Diabetes
- Hypertension



**COU
OVE**

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.

Since there is no compulsory health insurance in the U.S., many citizens remain uninsured

Healthcare system overview: introduction

In comparison to other leading industrial nations, the U.S. has quite a unique healthcare system. Though the **Patient Protection and Affordable Care Act** (enacted in 2010) ensured affordable healthcare access to all U.S. citizens, a large share of **8.6% of U.S. citizens were still without health insurance** in 2016.

Furthermore, public insurance coverage is comparably low: in 2015, **67.2% of U.S. residents relied on private healthcare**, offered by employers, acquired directly or via market places. **37.1% were covered by public programs** financed by the state or federal sources.

Despite the small governmental contribution to healthcare expenditure in comparison to the OECD average, U.S. healthcare spending is still the highest in the world with an average total of **US\$9,458 per capita** in 2015, and is further rising.

This further increase is mainly due to **rising average prices** of medication and treatment, rising numbers of people with (multiple) **chronic conditions**, e.g. diabetes and high blood pressure, as well as a high **administrative cost**. These factors contribute to healthcare being the single largest reason for consumer bankruptcy in the U.S.

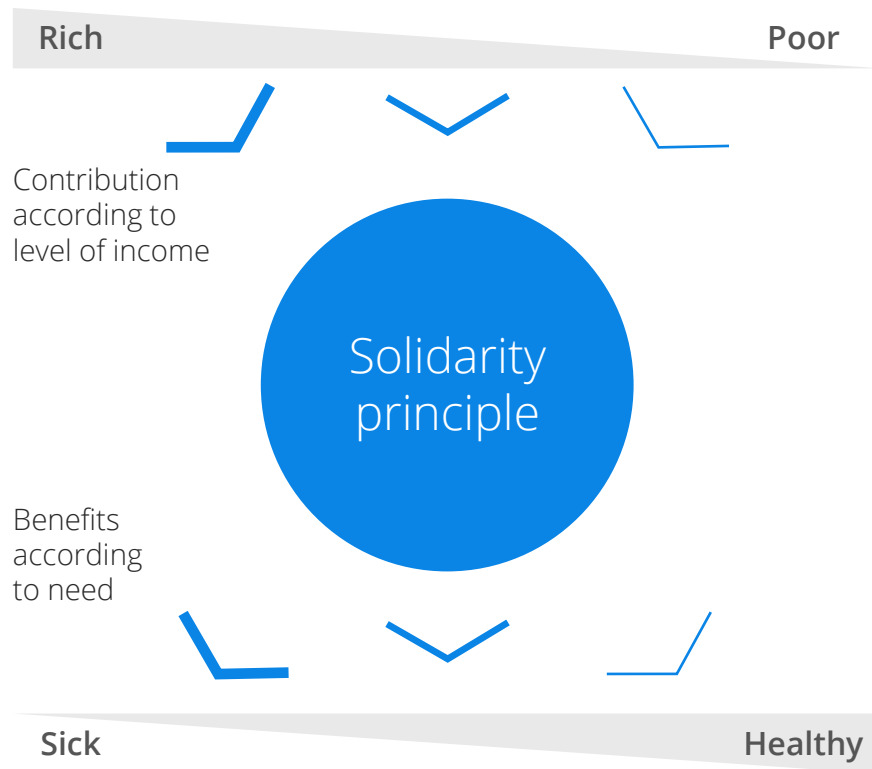
Though the Affordable Care Act has already lead to an improvement of insurance coverage and is intended to further tackle the problem of rising cost, its future remains unclear due to resurging discussions about repealing the act.



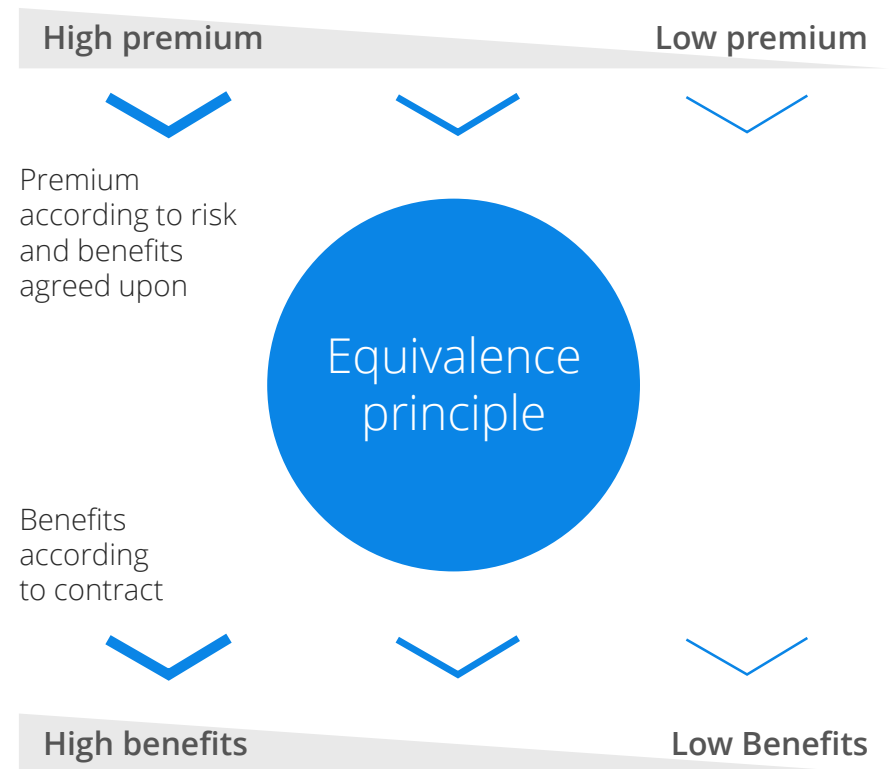
Benefits in private insurance rise with premiums, while statutory insurance is need based

Healthcare system overview: insurance systems

Statutory health insurance



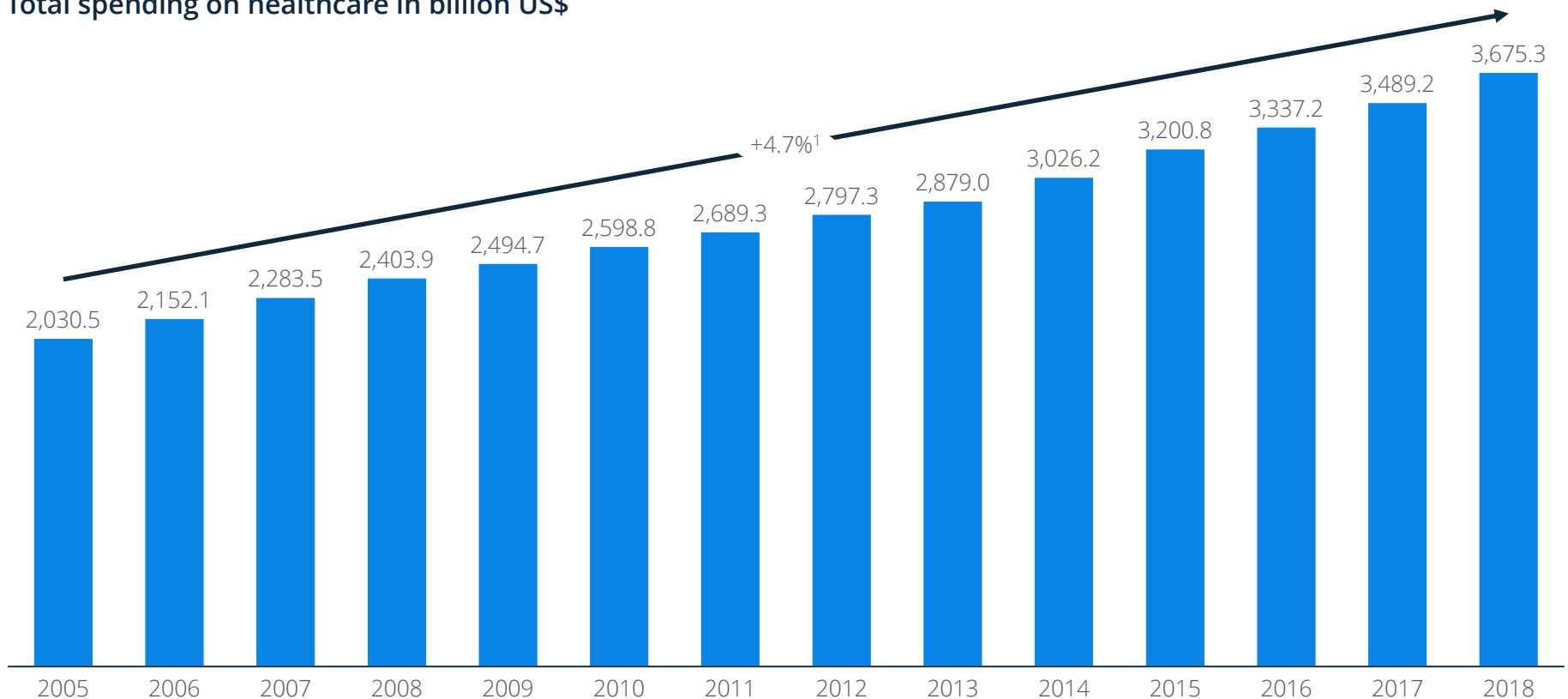
Private health insurance



Total national spending on healthcare in the U.S. is constantly rising

Healthcare system overview: spending (1/4)

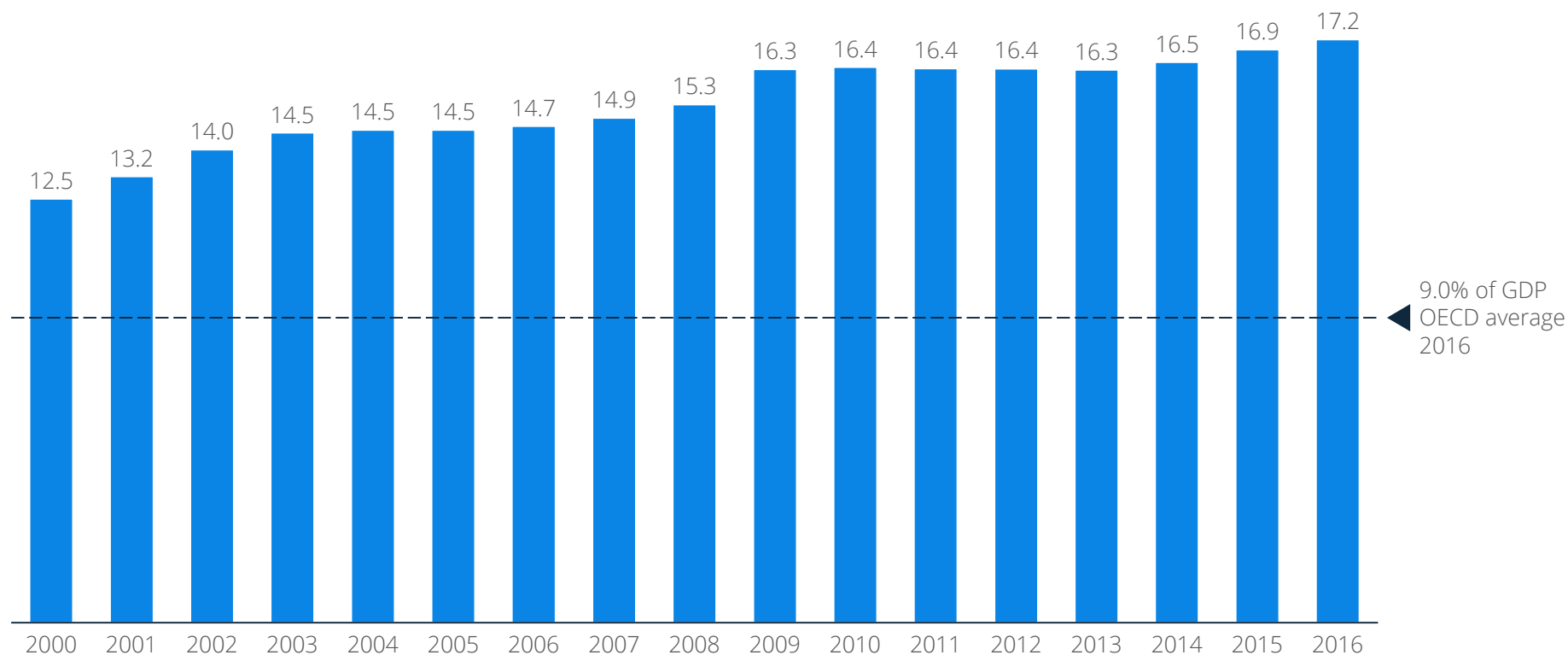
Total spending on healthcare in billion US\$



In 2016, the U.S. spent 17.2% of GDP on healthcare

Healthcare system overview: spending (2/4)

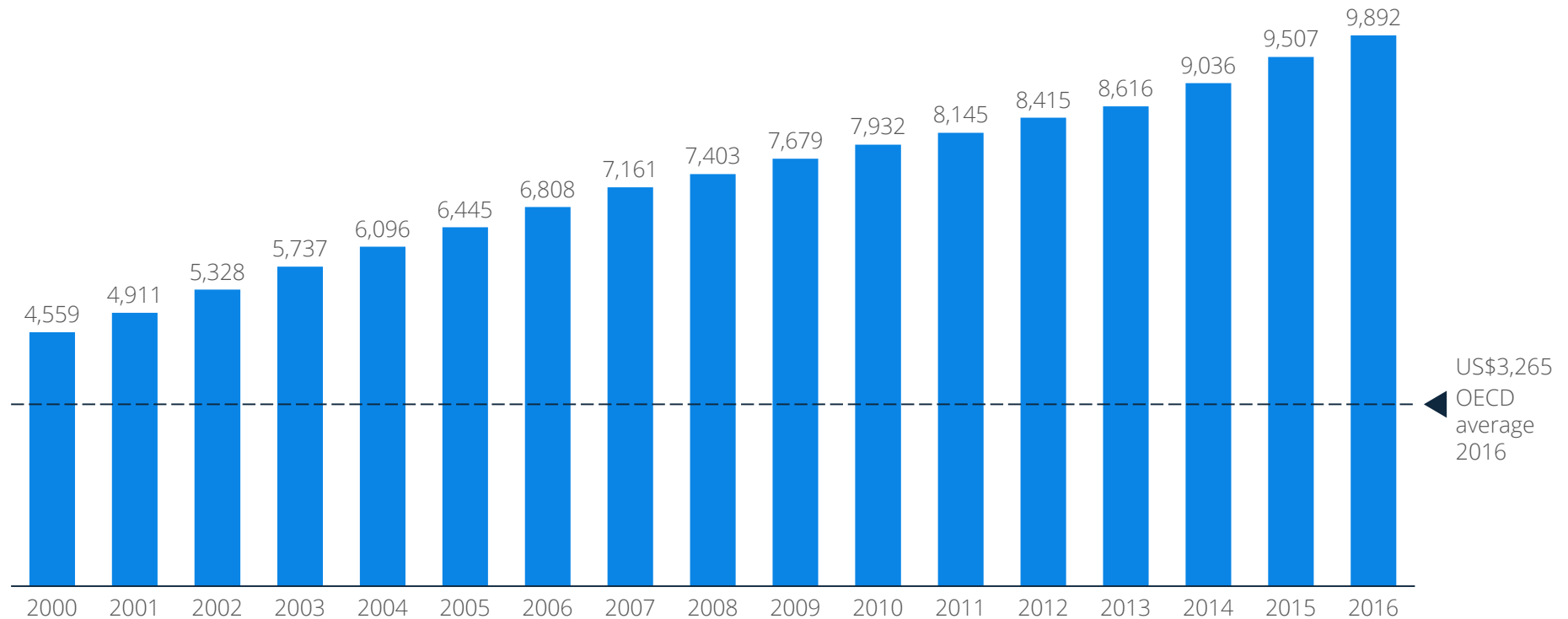
Spending on healthcare in % of GDP



The U.S. healthcare spending per capita is above the OECD average

Healthcare system overview: spending (3/4)

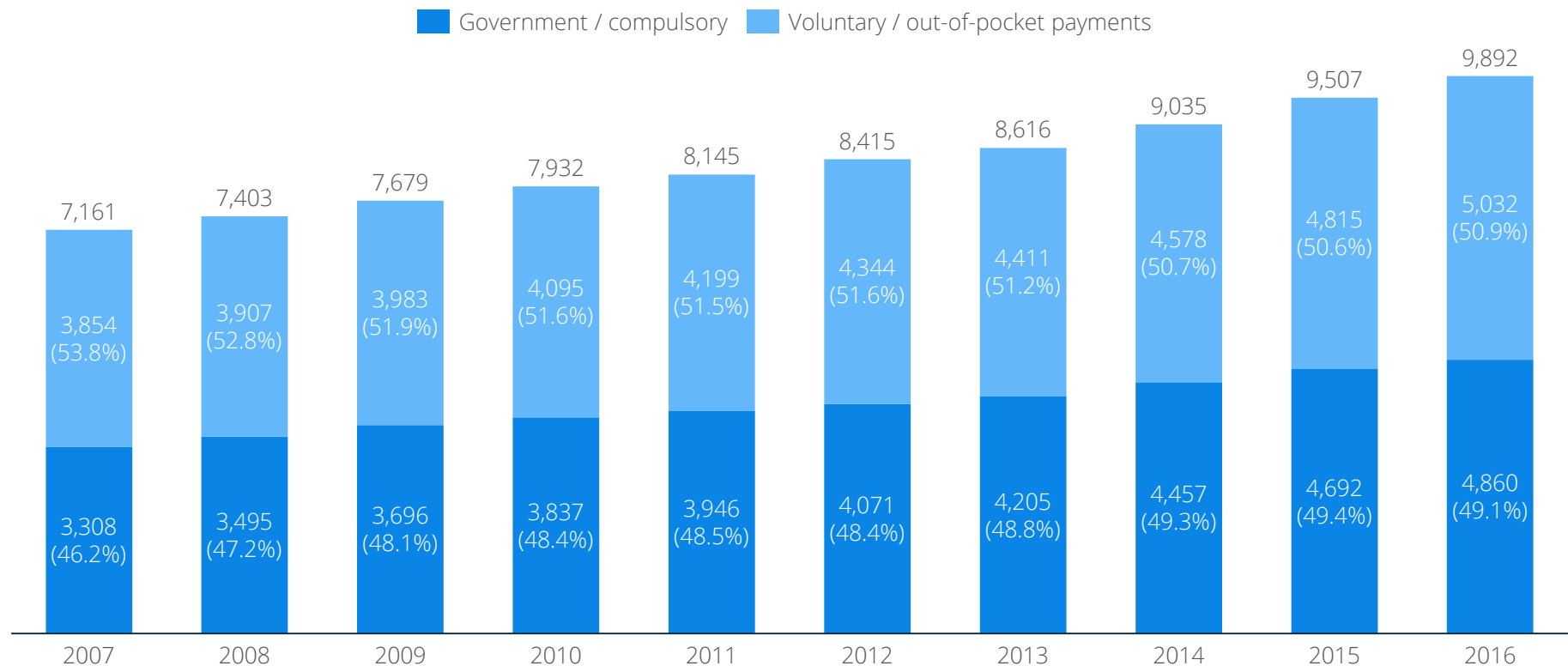
Healthcare spending per capita in US\$



Around half of the U.S. per-capita spending comes from compulsory health insurance

Healthcare system overview: spending (4/4)

Healthcare spending per capita in US\$

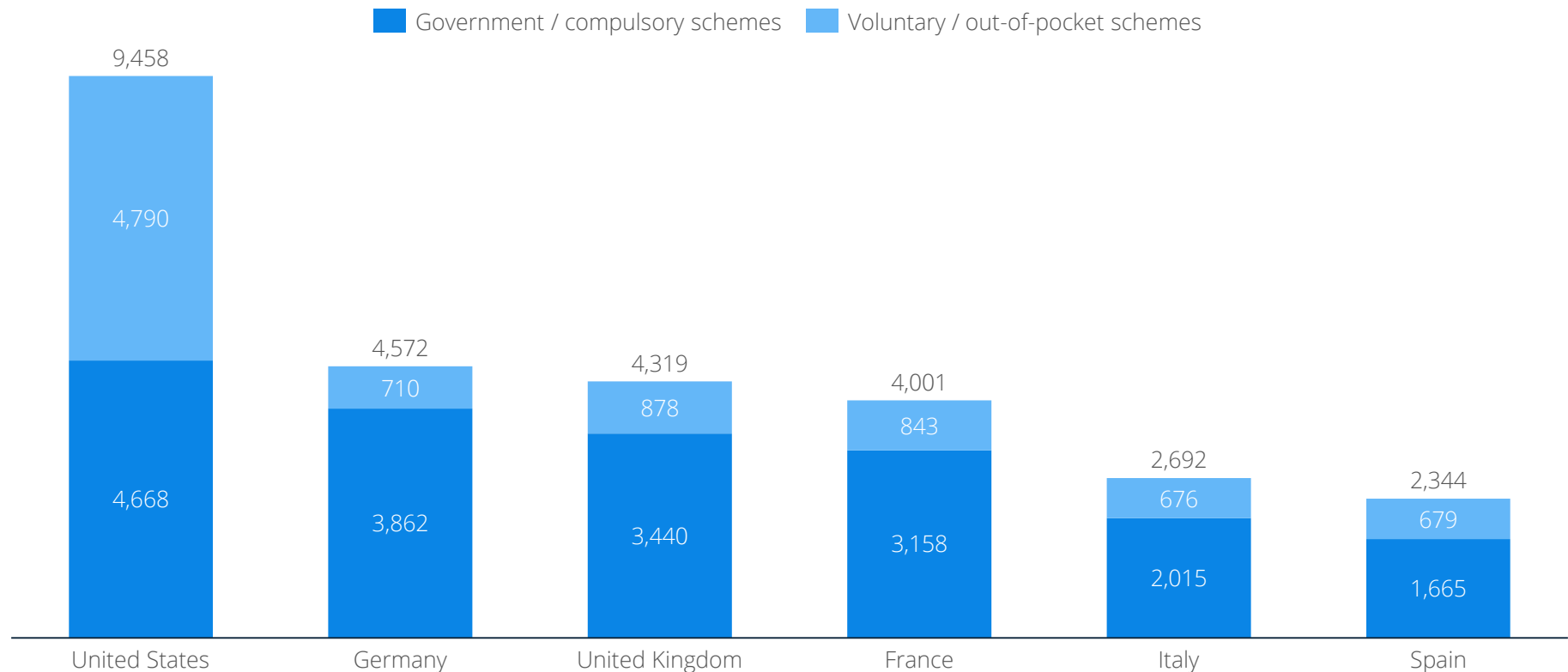


Note: Data in current prices, 2016 estimated values
Source: OECD

Healthcare spending per capita in the U.S is outstandingly high compared to other economies

Healthcare system overview: country comparison (1/2)

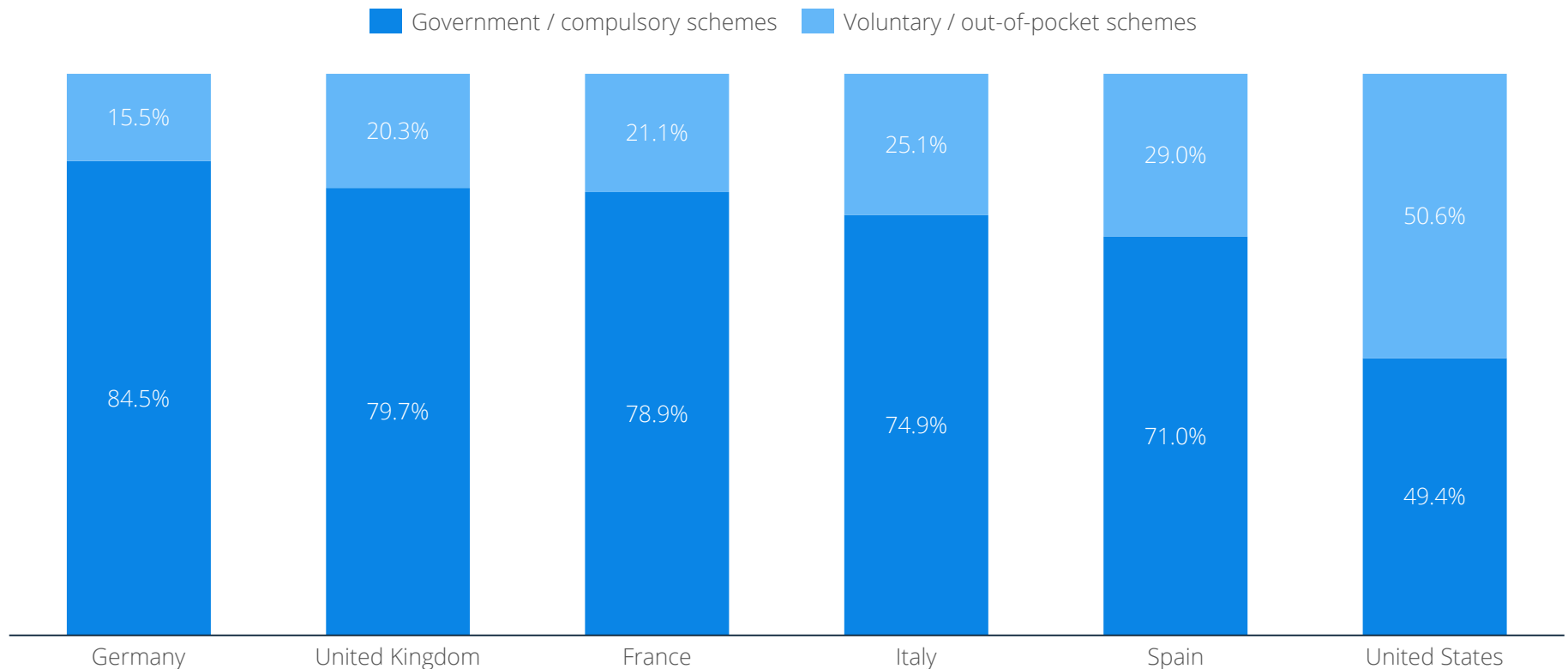
Healthcare spending per capita in 2015 in US\$



Compared to other countries, the U.S. has a high share of voluntary financing

Healthcare system overview: country comparison (2/2)

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

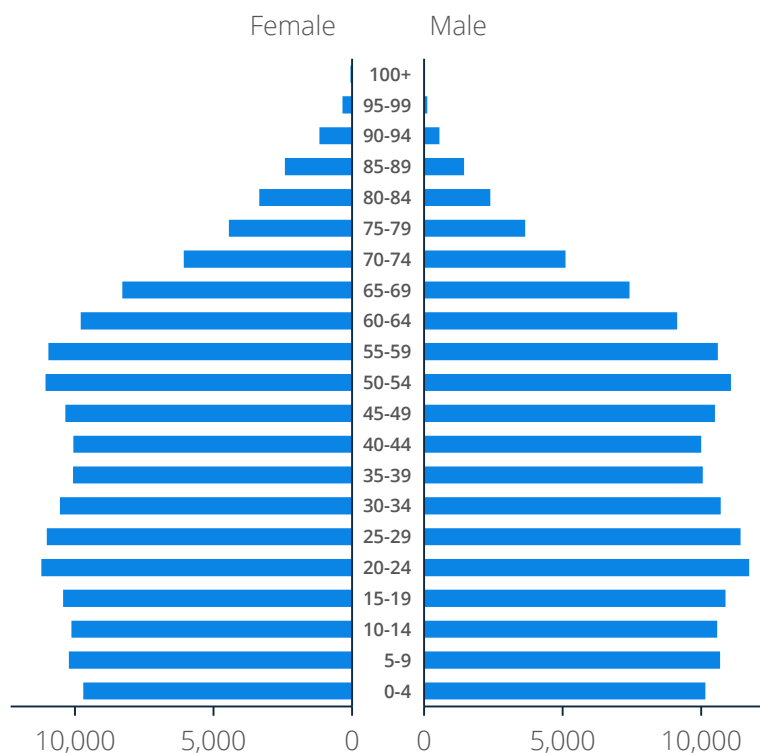


Note: Original data in Euro/Pound converted according to the average exchange rate for 2016 (USD/GBP 0.7402, USD/EUR 0.9037)
Source: OECD, Oanda

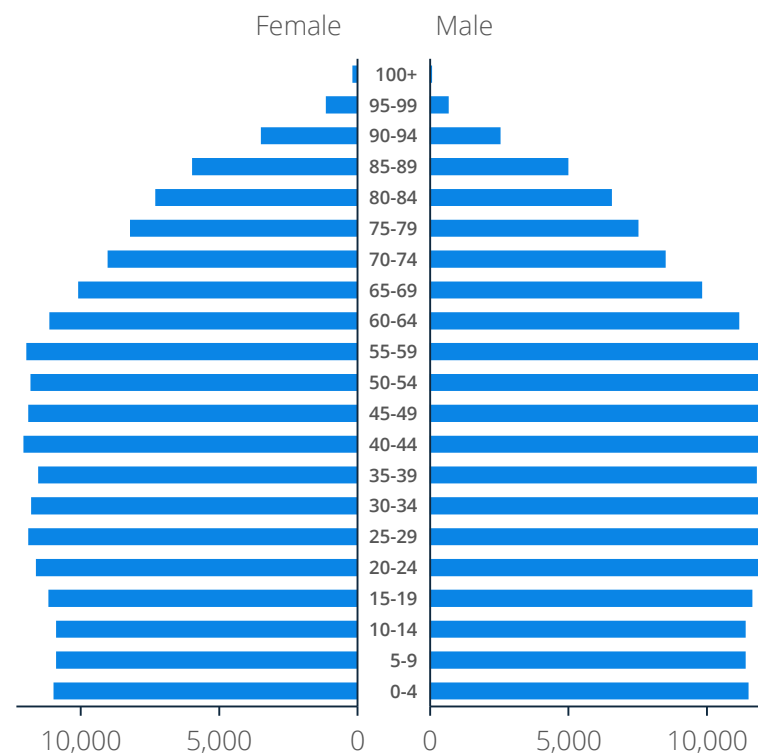
The U.S. population will be increasingly older

Population health status: age demographics (1/2)

Population per age group in thousand in 2015



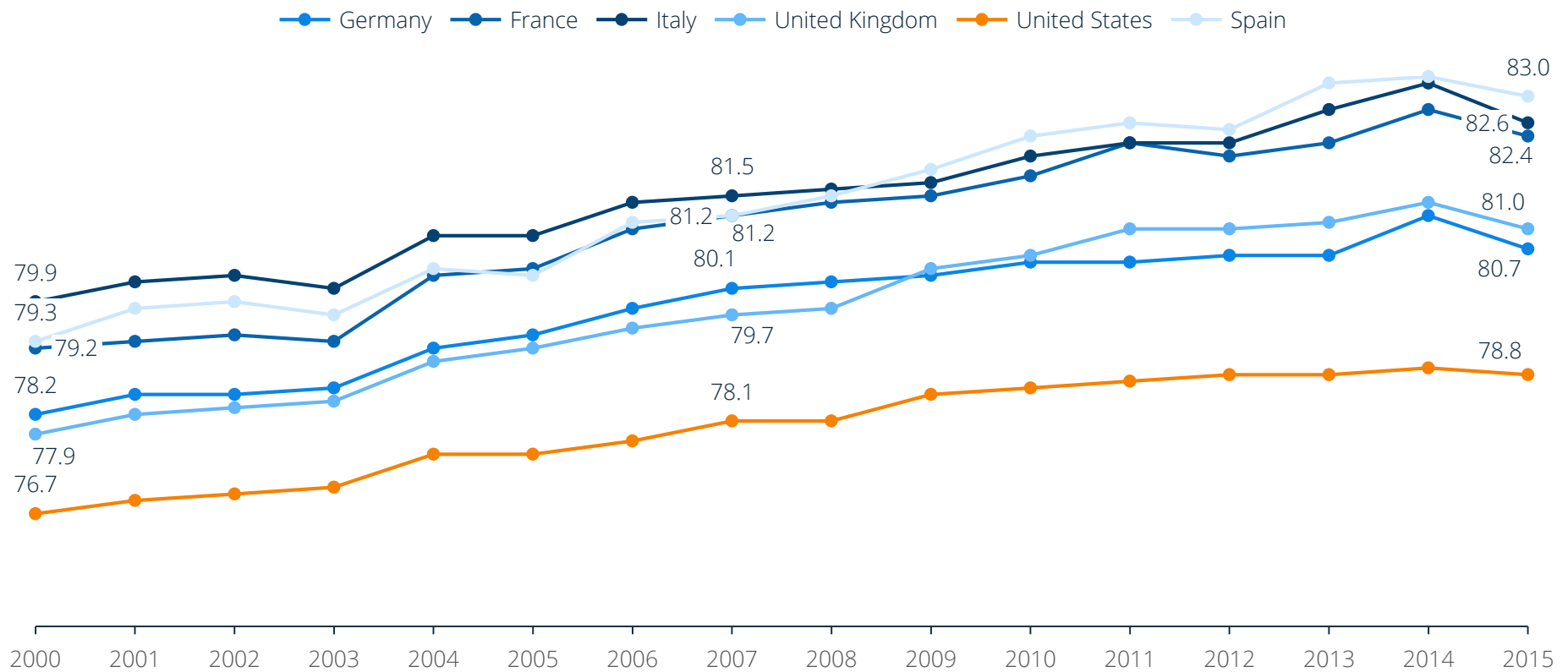
Population per age group in thousand in 2050



Life expectancy in the U.S. is the lowest compared to other developed countries

Population health status: age demographics (2/2)

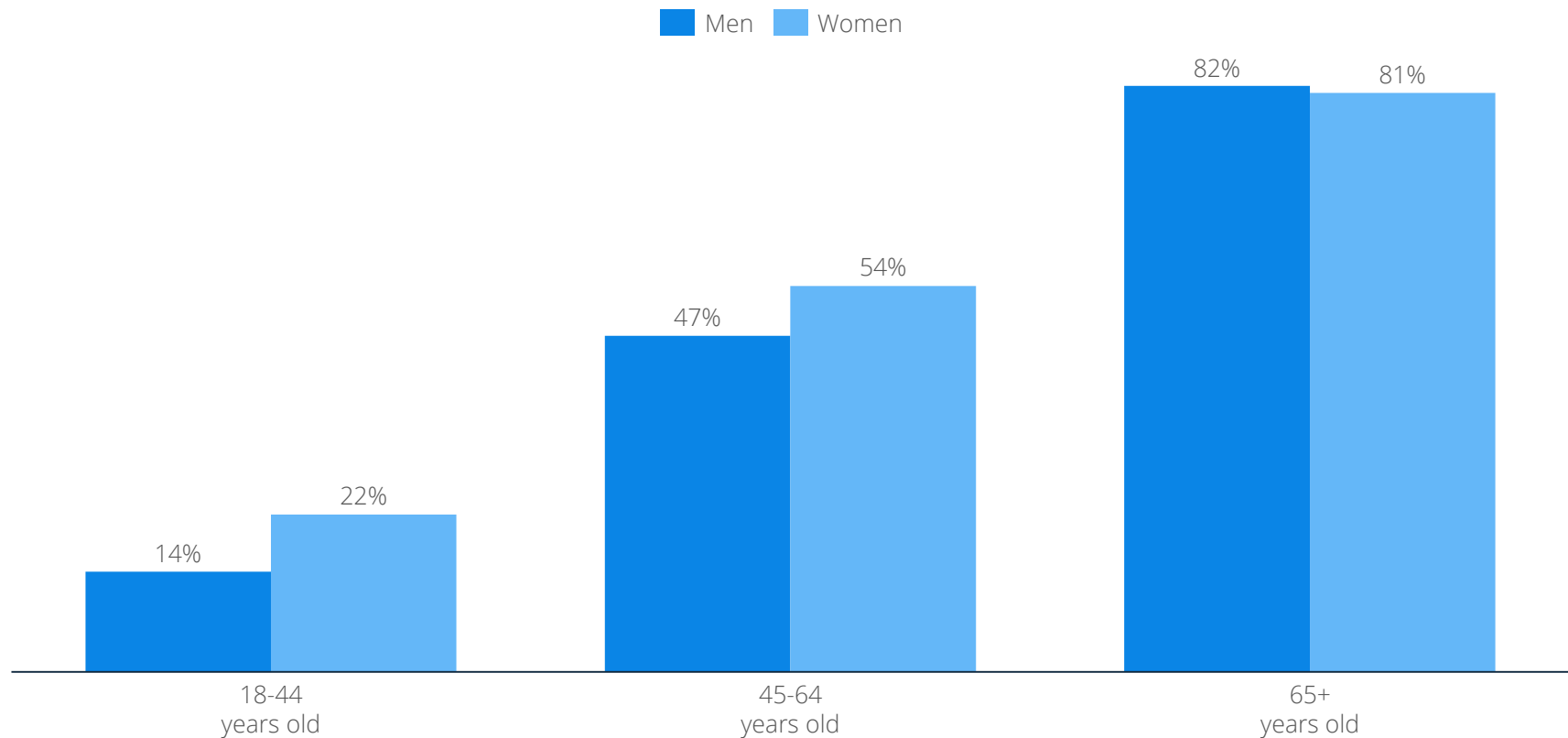
Life expectancy in years



Multiple chronic illnesses are more prevalent among older generations and females

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

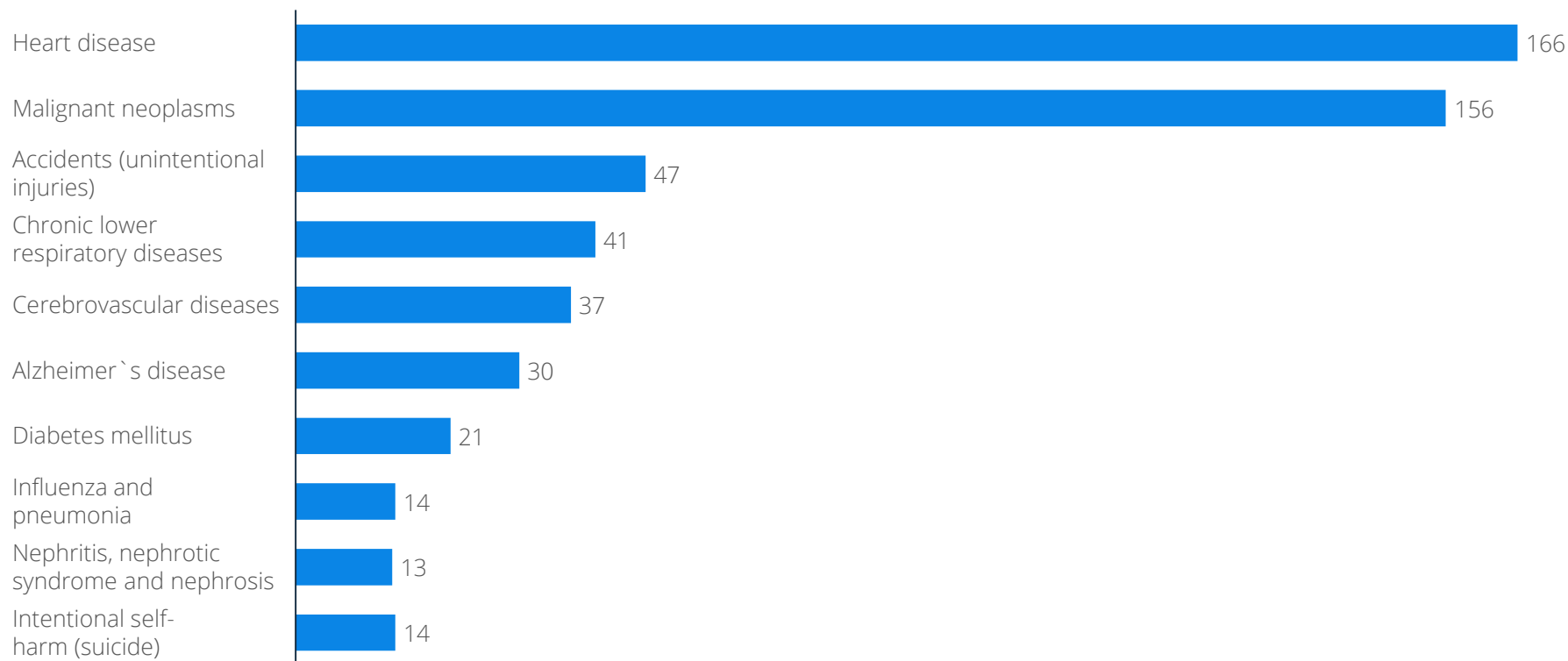
Share of citizens suffering from multiple chronic diseases in 2014



Heart disease is the top cause of death in the U.S.

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

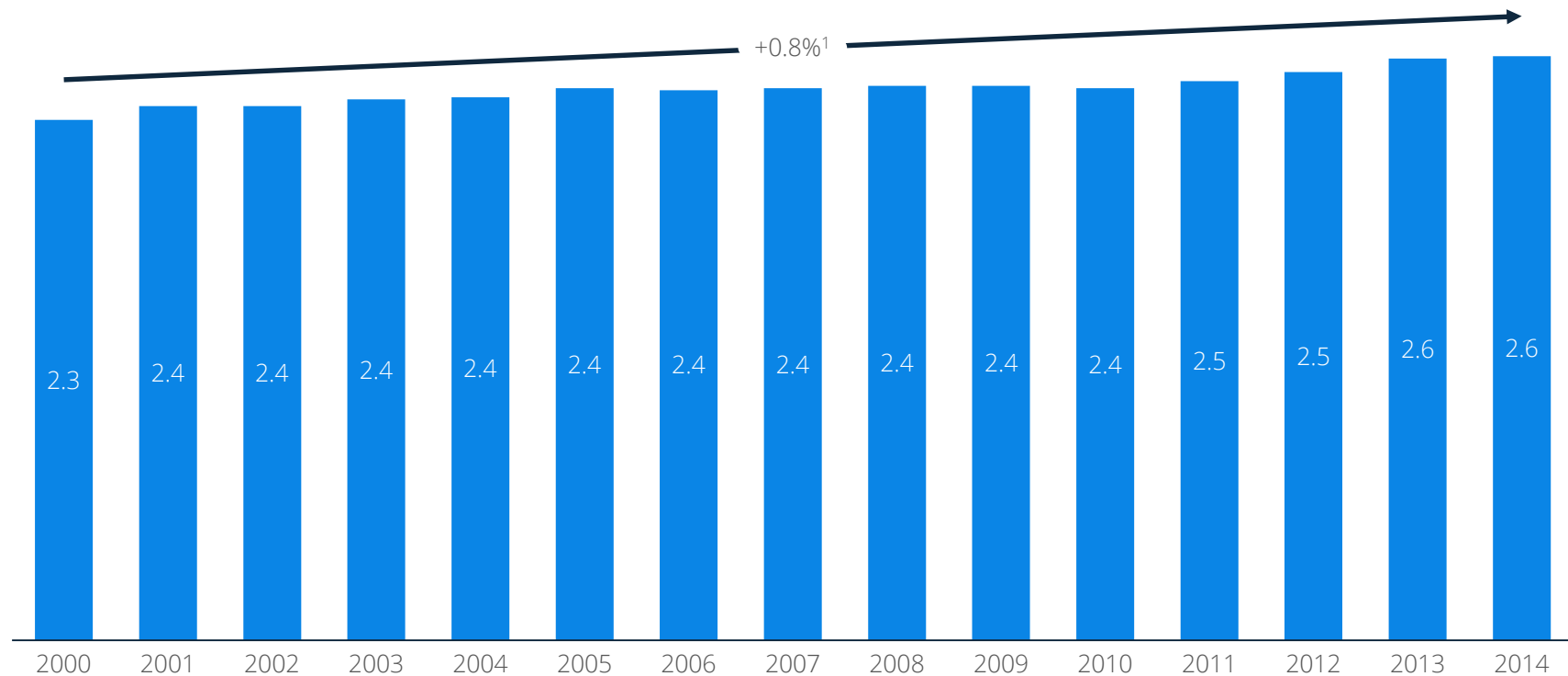
Top 10 causes of death in 2016 in deaths per 100,000 population



The number of physicians per 1,000 inhabitants is slowly rising in the U.S.

Population health status: healthcare resources (1/2)

Physician density per 1,000 inhabitants in head counts

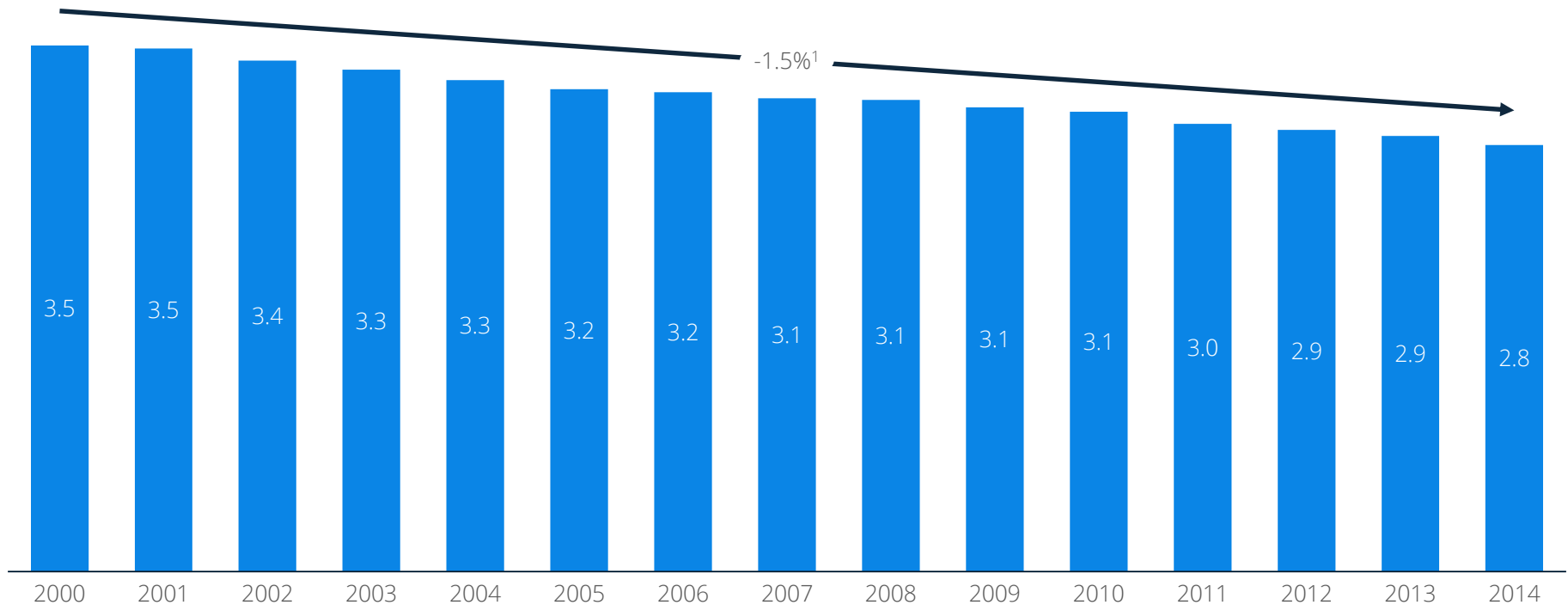


1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: OECD

The number of hospital beds per 1,000 inhabitants is declining in the U.S.

Population health status: healthcare resources (2/2)

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

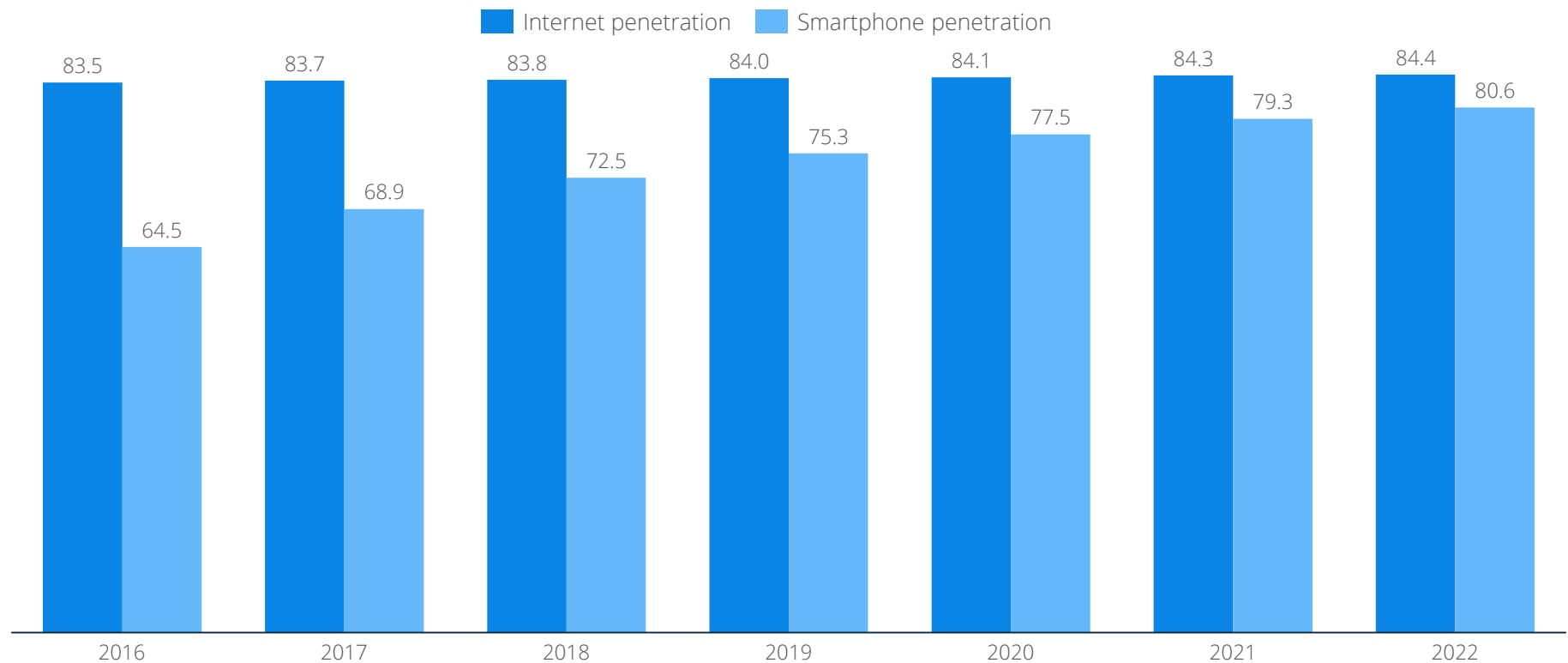


1: CAGR: Compound Annual Growth Rate / average growth rate per year
Source: OECD

Internet penetration in the U.S. is expected to grow slowly, with smartphone penetration catching up

Digital infrastructure: technology penetration (1/2)

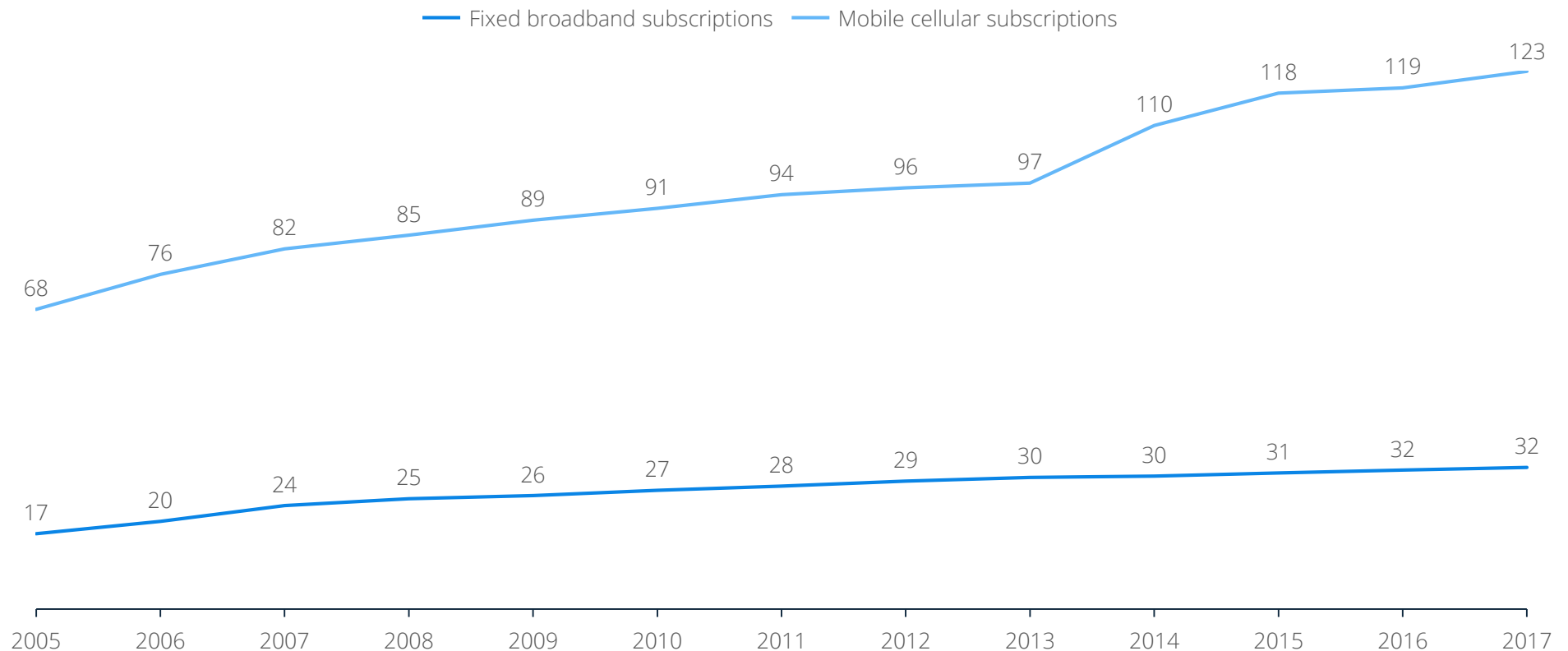
Internet and smartphone penetration in %



The amount of mobile cellular subscriptions is further increasing in the U.S.

Digital infrastructure: technology penetration (2/2)

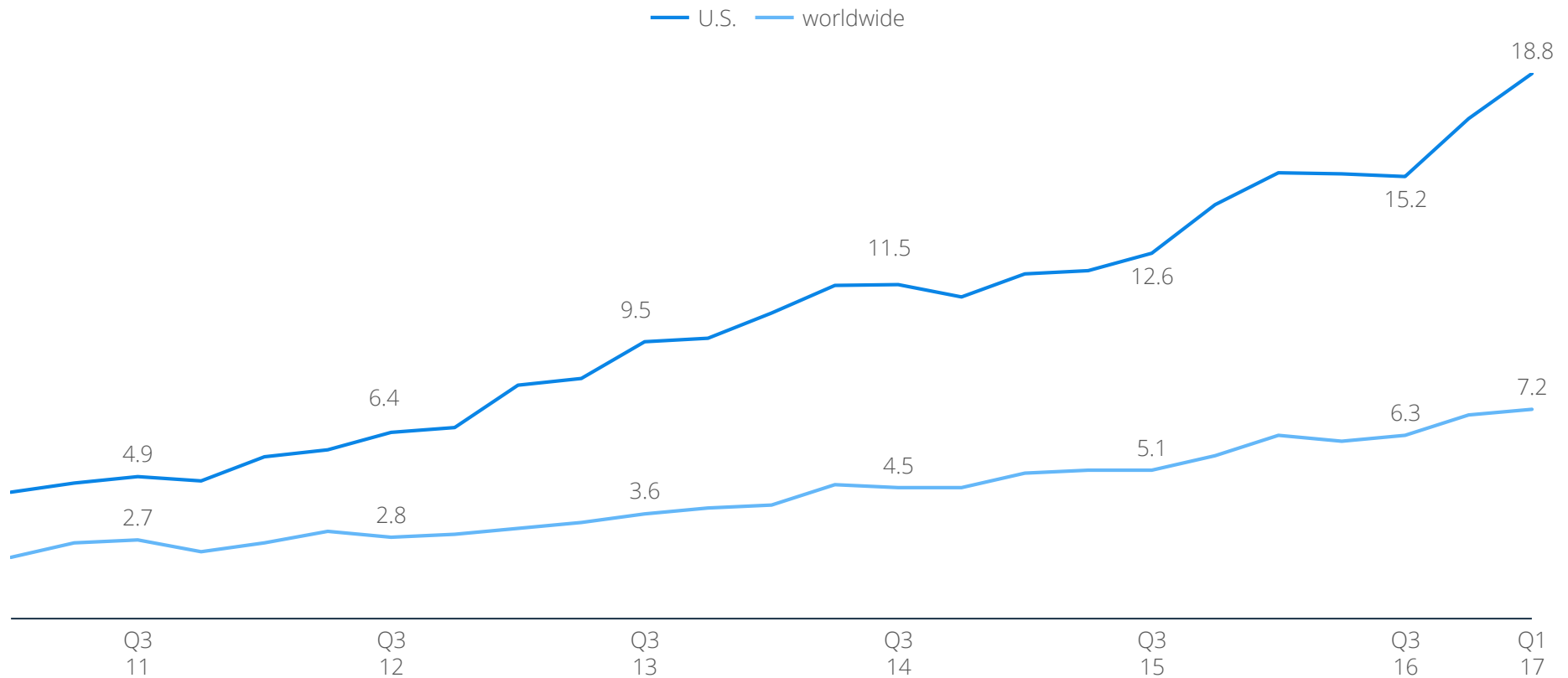
Mobile cellular subscriptions and fixed broadband subscriptions per 100 capita



The internet connection speed in the U.S. is constantly rising and has exceeded 18 Mbit/s

Digital infrastructure: connectivity

Average transmission speed of internet connections in Mbit/s





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**.

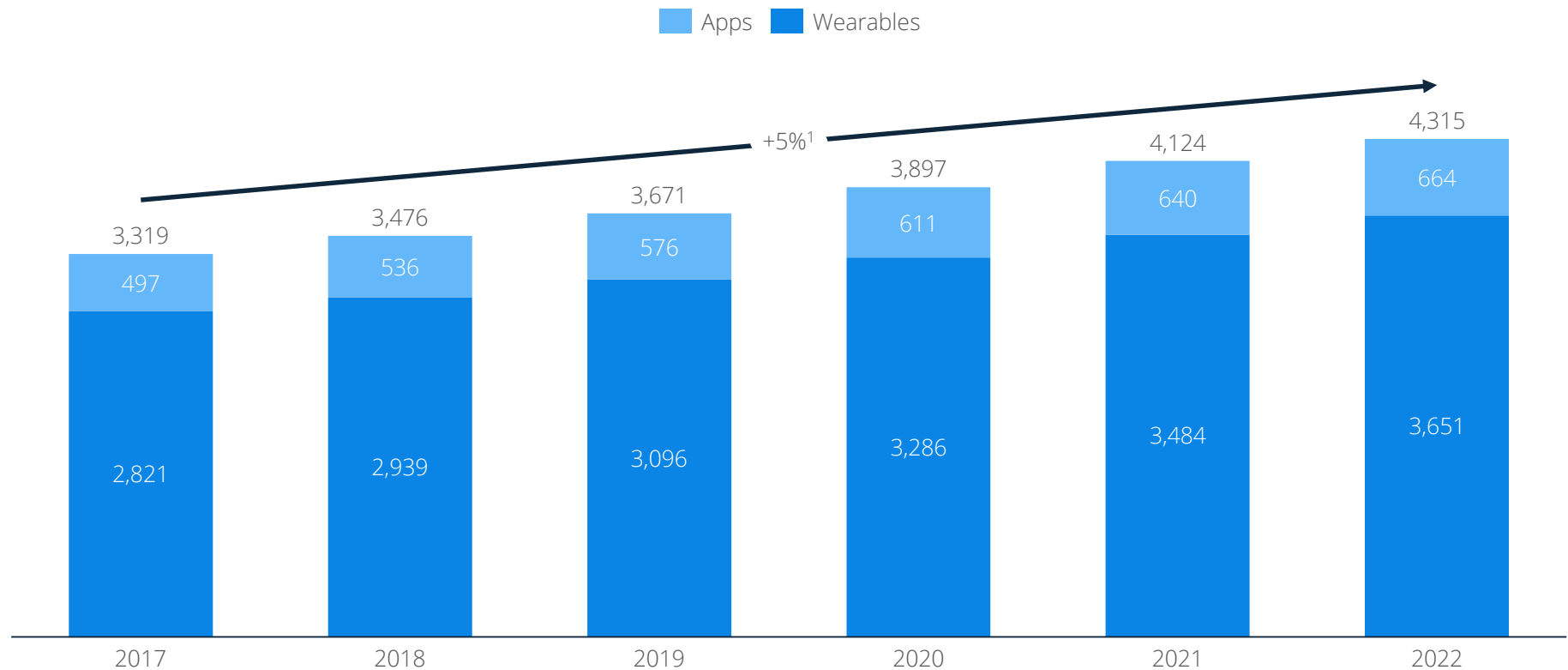
Key takeaways

- Revenue in the Fitness segment amounts to US\$3,319 million in 2017
- Revenue is expected to show an annual growth rate (CAGR¹ 2017-2022) of 5.4%, resulting in a market volume of US\$4,315 million by 2022
- The average revenue per user amounts to US\$36 in 2017
- From an international perspective, most revenue will be generated in the U.S.

Revenues of Fitness products are increasing at a CAGR¹ of 5%

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 U.S. shows a high user growth in Fitness Apps

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

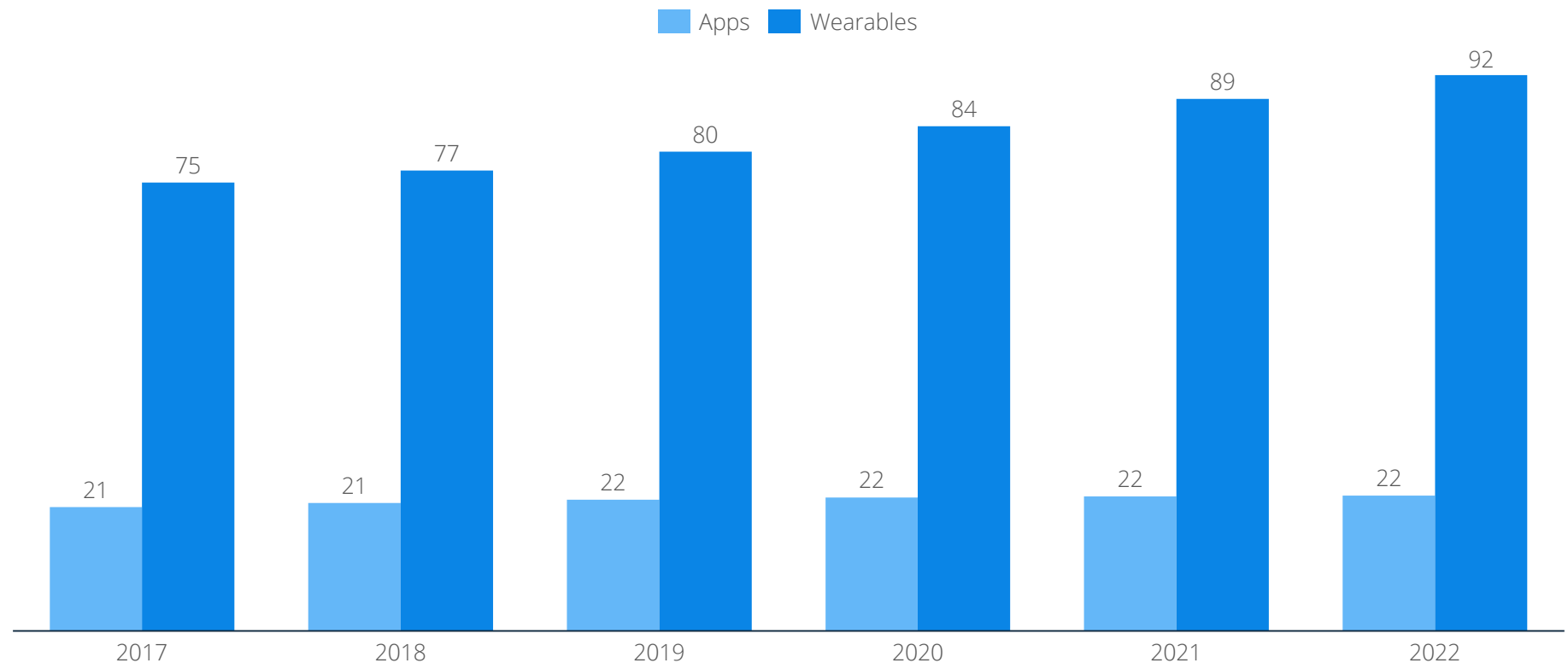
Users in million

Segment	2017	2018	2019	2020	2021	2022	CAGR ¹ 17 – 22
Wearables	37.8	38.4	38.8	39.1	39.3	39.5	0.9%
Apps	24.1	25.2	26.4	27.5	28.6	29.5	4.1%

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\$



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.

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.



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\$1,987 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.

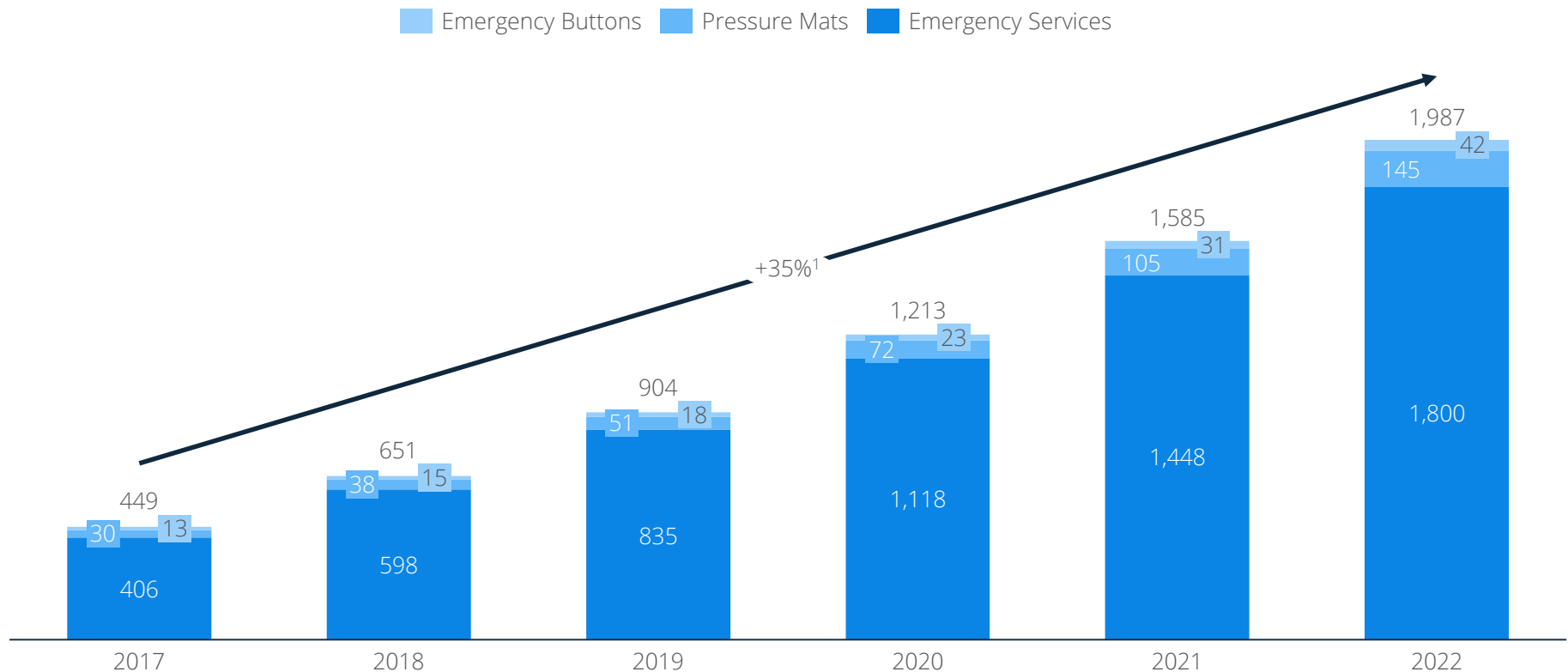
Key takeaways

- Revenue in the Ambient Assisted Living (AAL) segment amounts to US\$449 million in 2017
- Revenue is expected to show an annual growth rate (CAGR¹ 2017-2022) of 34.7%, resulting in a market volume of US\$1,987 million by 2022
- The average revenue per Smart Home is the highest for Emergency Services with US\$1,148 in 2017
- From an international perspective, most revenue will be generated in the U.S.

Revenues of AAL products will significantly increase at a CAGR¹ of 35%

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)

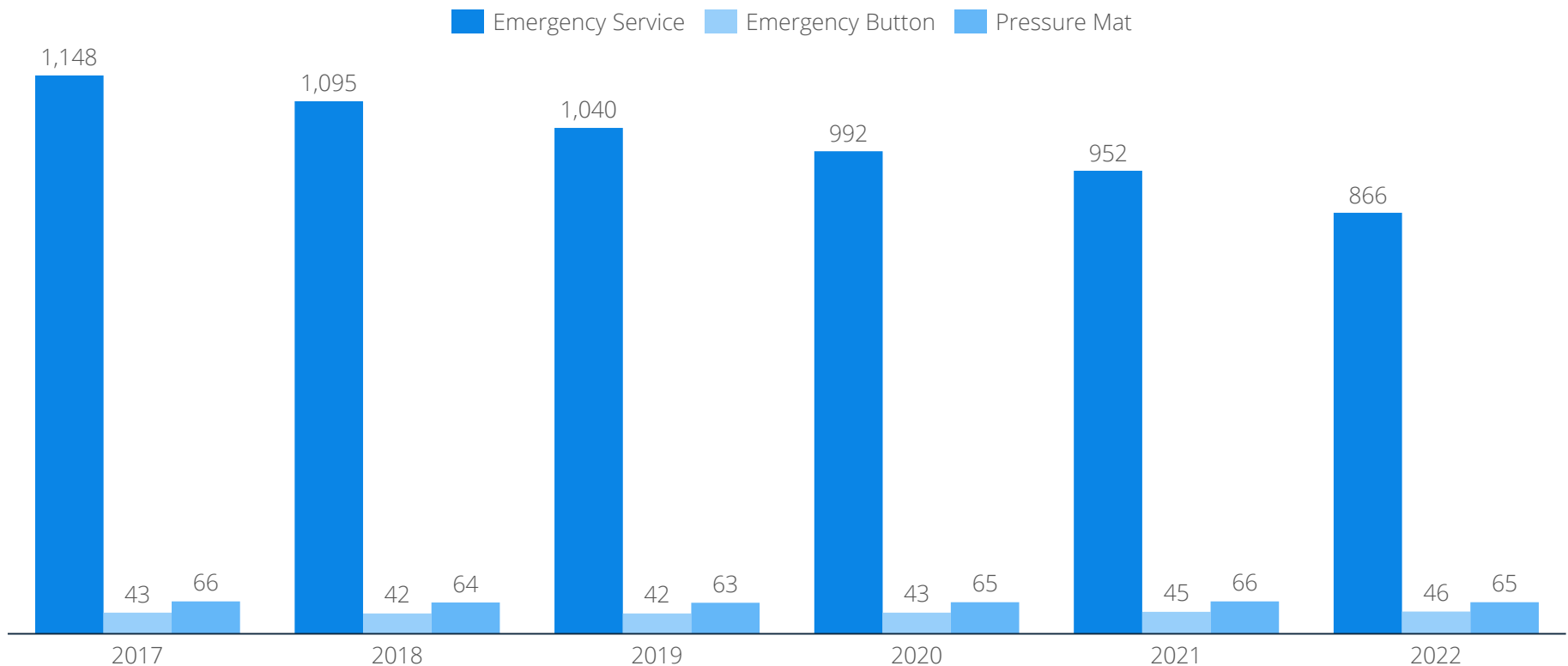
Homes with AAL functionalities in thousand

Segment	2017	2018	2019	2020	2021	2022	CAGR ¹ 17 – 22
Pressure Mats	447.7	599.2	805.7	1,114.5	1,589.4	2,246.9	38.1%
Emergency Buttons	303.0	357.6	429.9	537.1	697.7	924.6	25.0%
Emergency Services	353.6	545.8	802.2	1,126.5	1,520.7	2,079.7	42.5%

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\$



Robotics will play an important role in the future AAL market

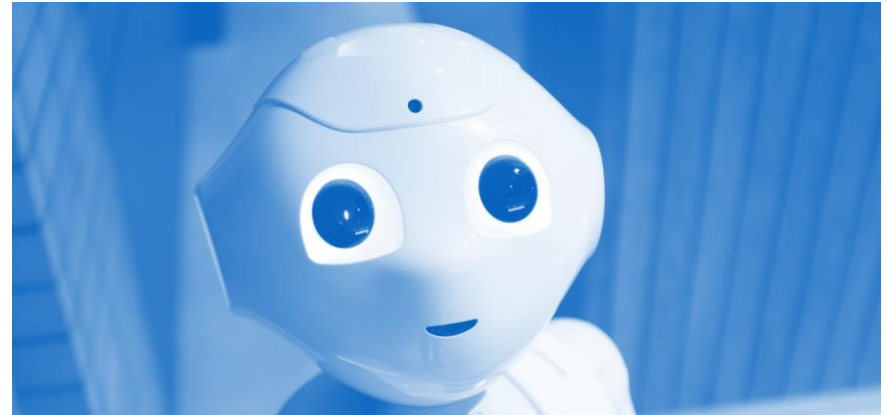
Deep dive: robotics and artificial intelligence in elderly care

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**.

A blue-tinted photograph of a hand holding a small white pill over a tablet displaying a medical chart. The chart includes text such as 'Steps 2,273 steps', 'Average 5,339 steps', 'Rest 7 h 43 m', and 'Average 7 h 1 m'. The background shows a wooden surface with a glass and a jar.

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.

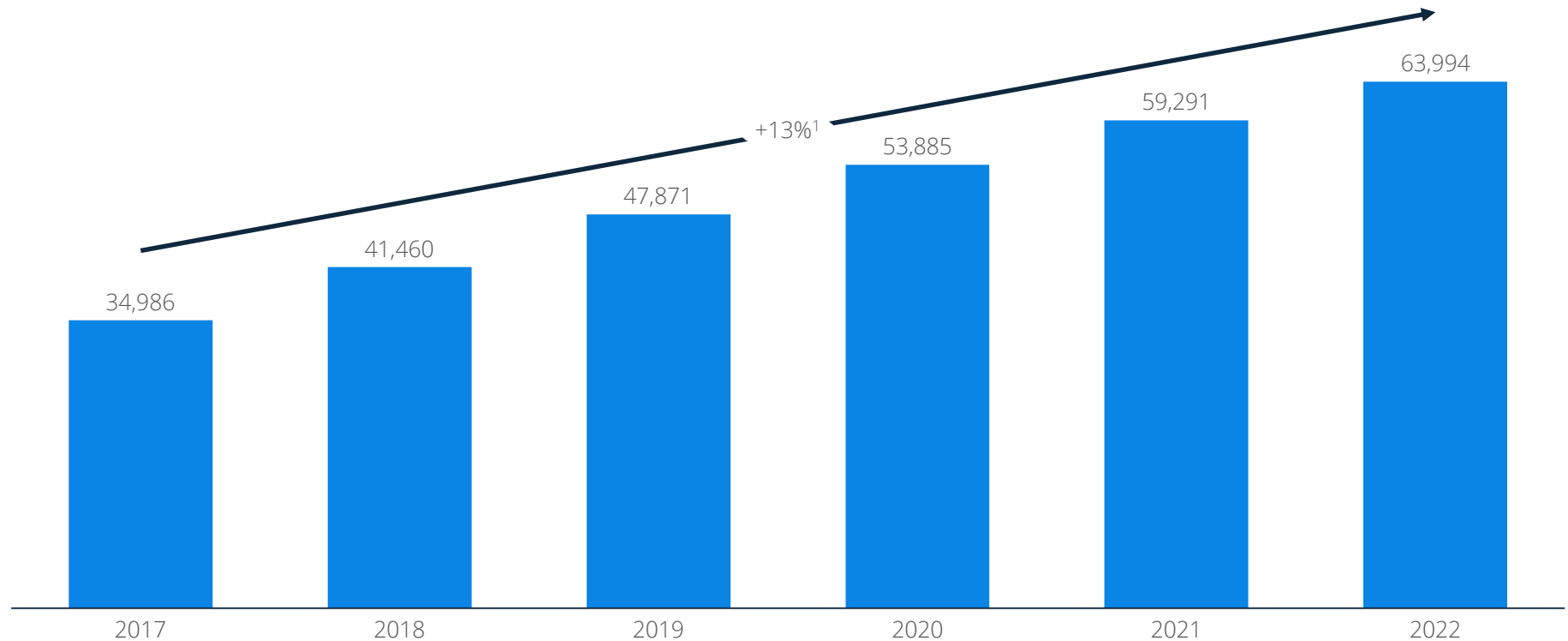
Key takeaways

- Revenues in the segment ePharmacy & Personal Care amount to US\$34,986 million in 2017
- Revenue is expected to show an annual growth rate (CAGR¹ 2017-2022) of 12.8%
- The average revenue per user is US\$409 in 2017
- From an international perspective most revenue is generated in the United States

With a CAGR¹ of 13% 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)

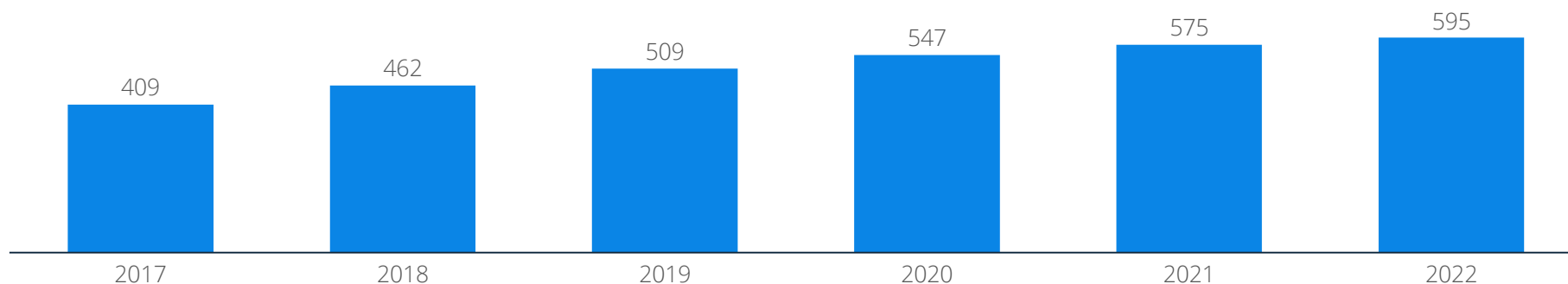
Revenues of the ePharmacy and Personal Care Segment in million US\$



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	85.5	89.7	94.1	98.6	103.1	107.6	4.7%

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

Cvs.com is the biggest online player specialized in pharmaceuticals solely operating in the U.S. market

Shop profile: cvs.com

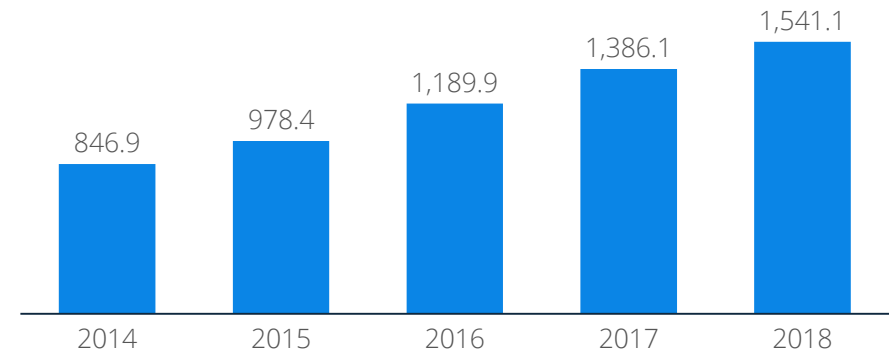
Find out more on:
ecommerceDB.com

Key Facts

Headquarters:	Woonsocket, US
Launch:	1999
Global eCommerce net sales '17:	US\$1.39 billion
Main category:	Food & Personal Care



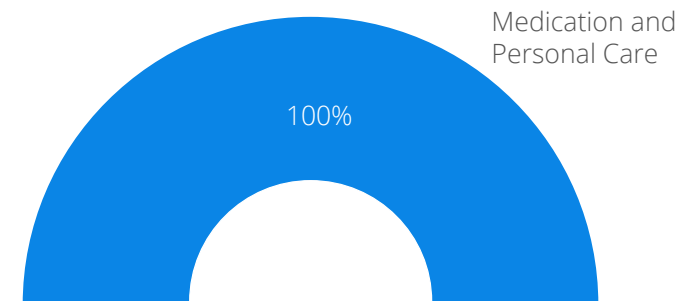
Global eCommerce net sales in million US\$



Background

cvs.com, operated by CVS Pharmacy, Inc., is an online store with nationally-focused sales. Its eCommerce net sales are generated almost entirely in the United States. With regards to the product range, cvs.com specializes in the "Food & Personal Care" category, particularly in the area of Medication and Personal Care. The online store was launched in 1999.

Revenue split by categories in %



Gnc.com is one of the biggest U.S. online shops with focus on personal health products

Shop profile: gnc.com

Find out more on:
ecommerceDB.com

Key Facts

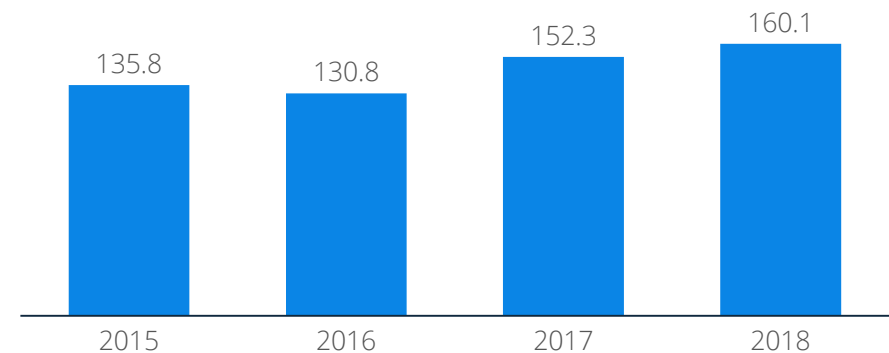
Headquarters: [Pittsburgh, US](#)

Global eCommerce net sales '17: [US\\$0.15 billion](#)

Main category: [Food & Personal Care](#)



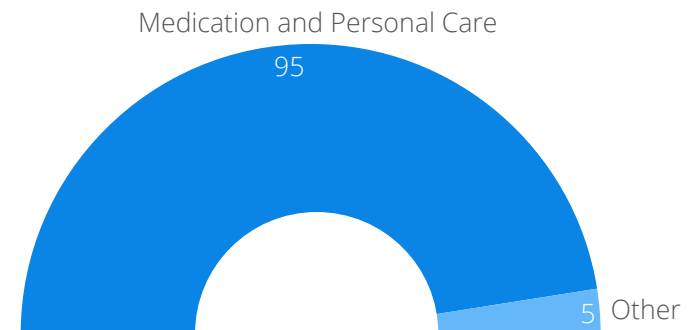
Global eCommerce net sales in million US\$



Background

gnc.com, operated by GNC Holdings, Inc., is an online store with nationally-focused sales. Its eCommerce net sales are generated mostly in the United States. Other countries only account for a small share of eCommerce net sales, e. g. China. With regards to the product range, gnc.com specializes in the "Food & Personal Care" category, particularly in the area of "Personal Care".

Revenue split by categories in %





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\$163 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.

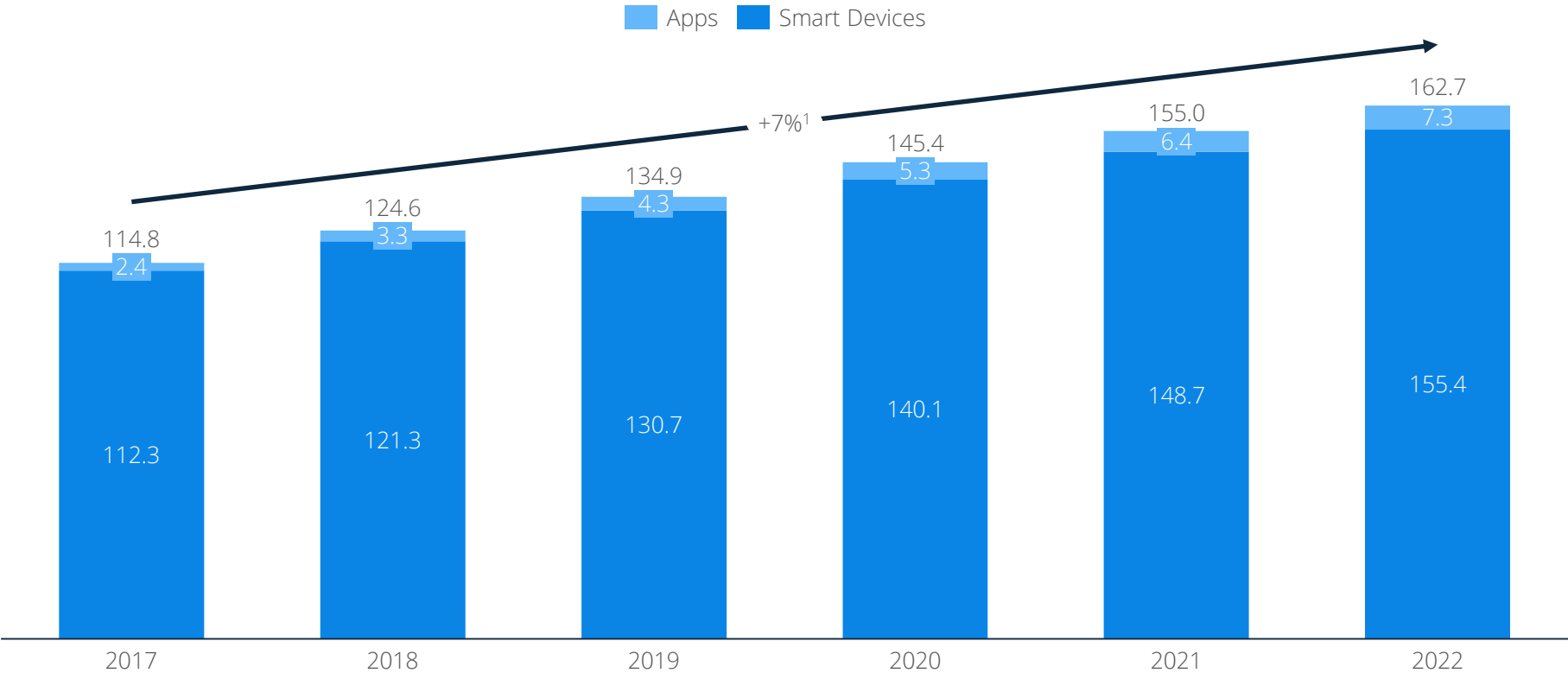
Key takeaways

- Revenues in the segment eHealth solutions for Heart Failure amount to US\$115 million in 2017
- Revenue is expected to show an annual growth rate (CAGR¹ 2017-2022) of 7.2%, resulting in a market volume of US\$163 million by 2022
- The average revenue per user (ARPU) currently amounts to US\$19 in Apps and US\$211 in Devices
- From an international perspective, most revenue is generated in the United States

Revenues of Apps are increasing at a CAGR¹ of 25%

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

Revenue in million US\$



The amount of App users is increasing at a CAGR¹ of 26 from 2017 to 2022

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

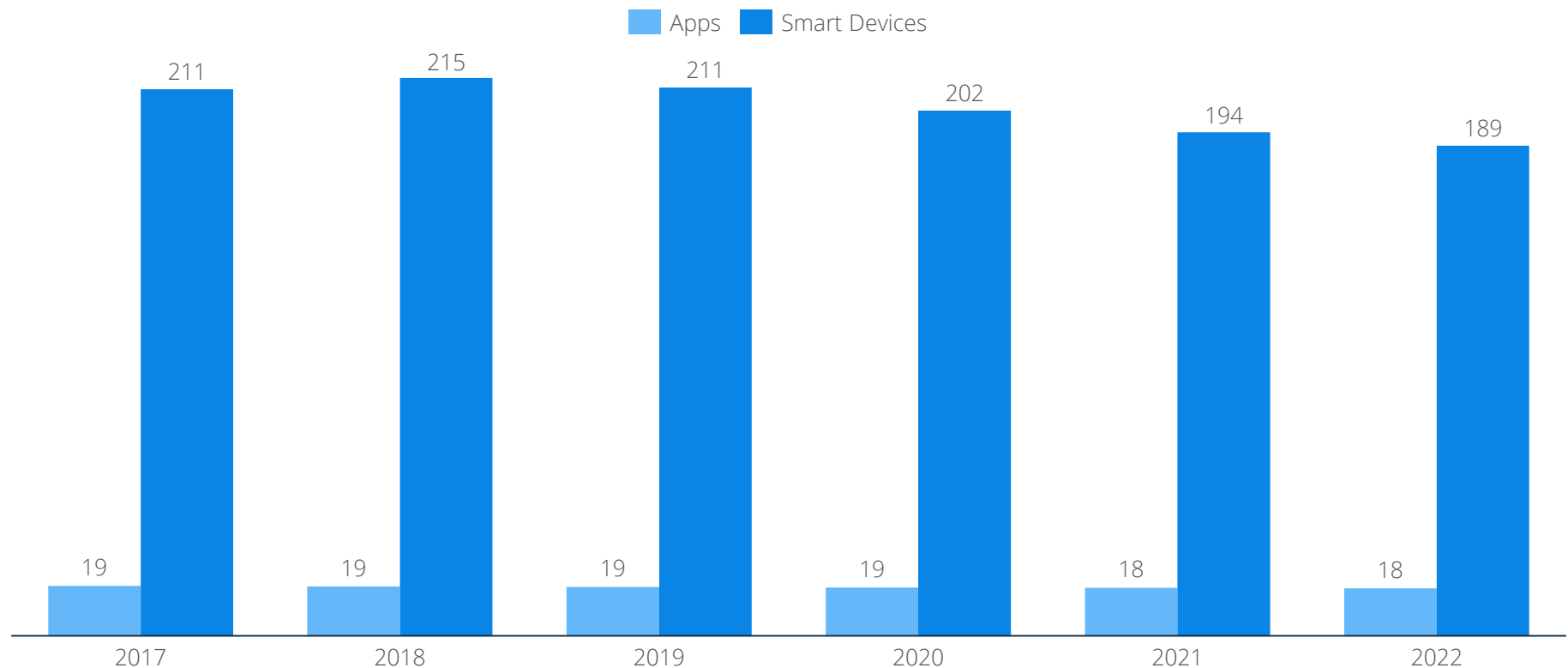
Paying users in thousand

Segment	2017	2018	2019	2020	2021	2022	CAGR ¹ 17 – 22
App	126	173	227	285	345	402	26.2%
Device	533	564	618	692	766	823	9.1%

Due to rising competition, prices are projected to decline

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

Average revenue per user in US\$



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**.





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\$132 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.

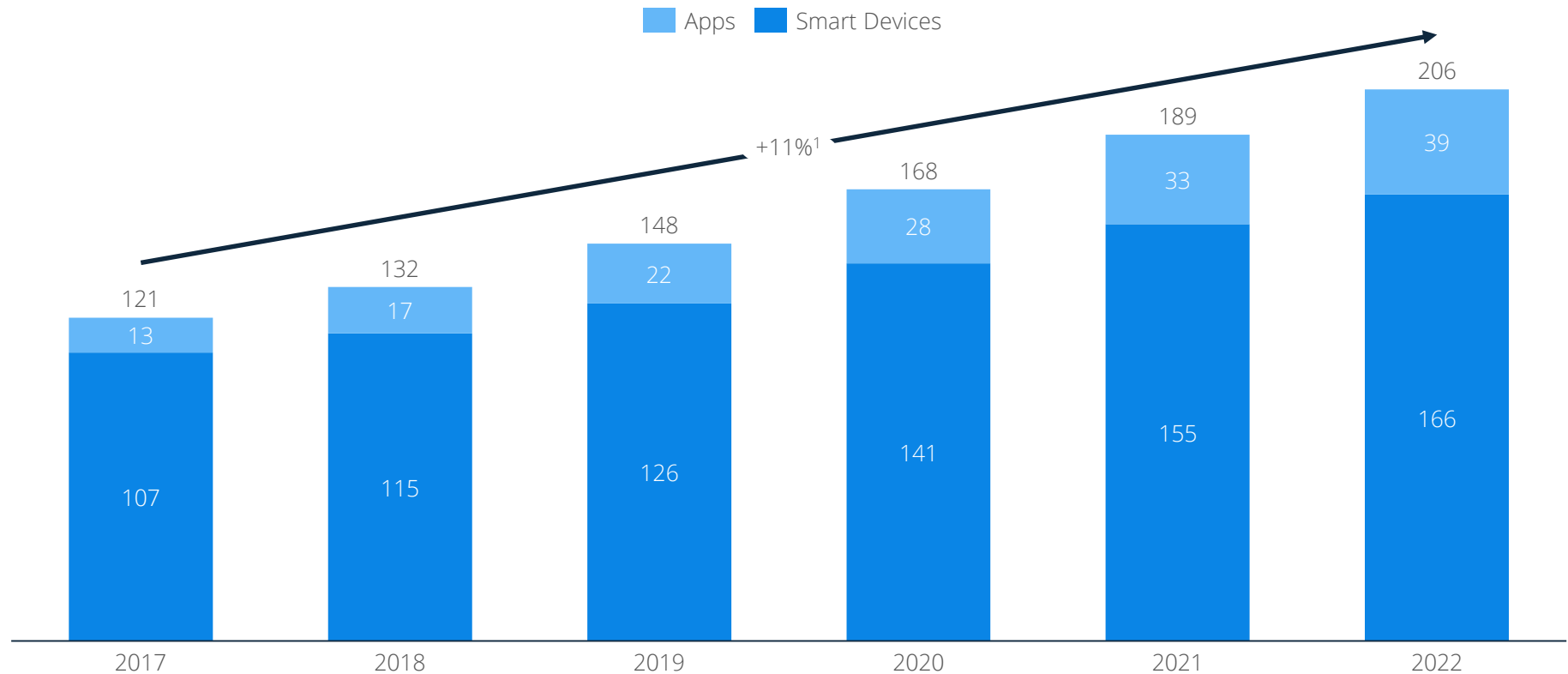
Key takeaways

- Revenue in the segment eHealth solutions for Diabetes amounts to US\$121 million in 2017
- Revenue is expected to show an annual growth rate (CAGR¹ 2017-2022) of 11.3%, resulting in a market volume of US\$206 million by 2022
- The average revenue per user (ARPU) currently amounts to US\$21 in apps and US\$78 in devices
- From an international perspective most revenue is generated in the United States

Revenues of Smart Devices for diabetes are projected to rise at a CAGR¹ of 11%

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

2.2 million Diabetes Device users are expected by 2022

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

Paying users in thousand

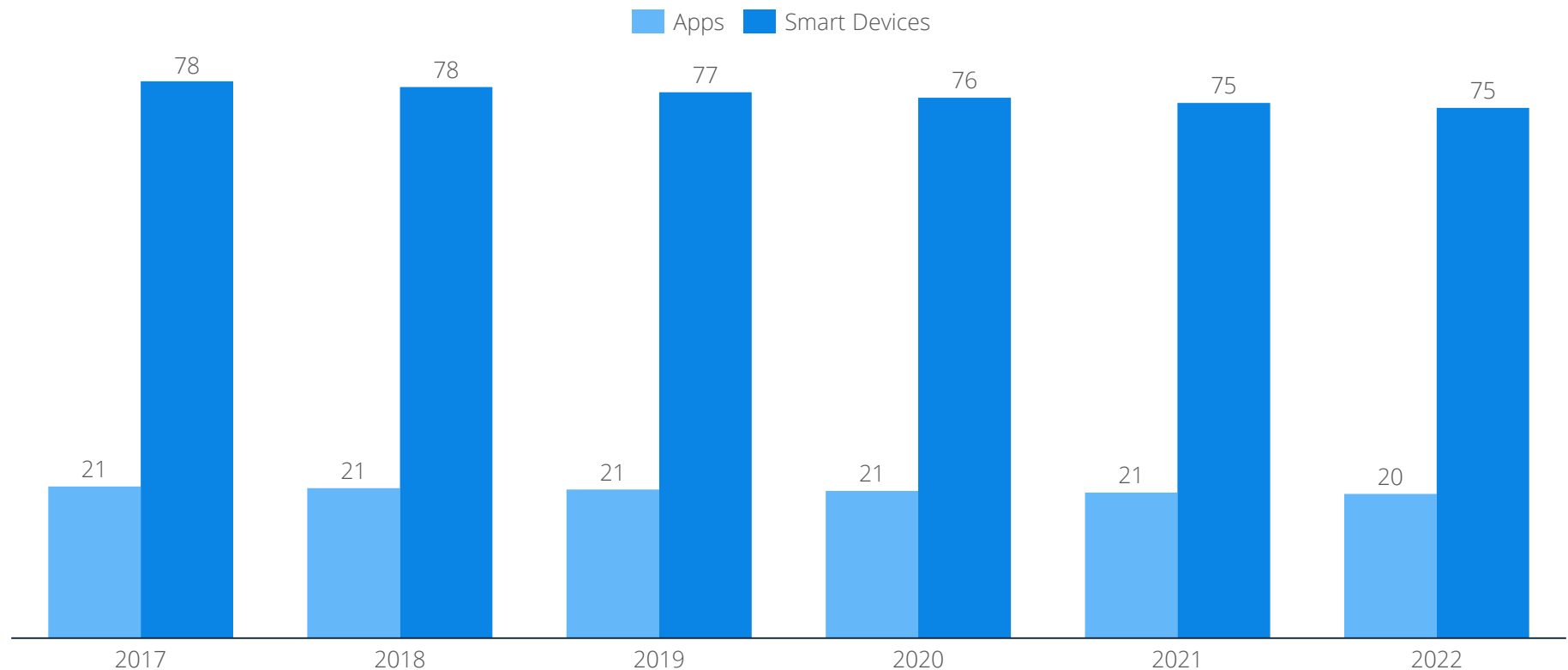
Segment	2017	2018	2019	2020	2021	2022	CAGR ¹ 17 – 22
App	612	820	1,065	1,339	1,631	1,930	25.8%
Device	1,371	1,477	1,638	1,849	2,062	2,230	10.2%

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



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.

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\$122 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.

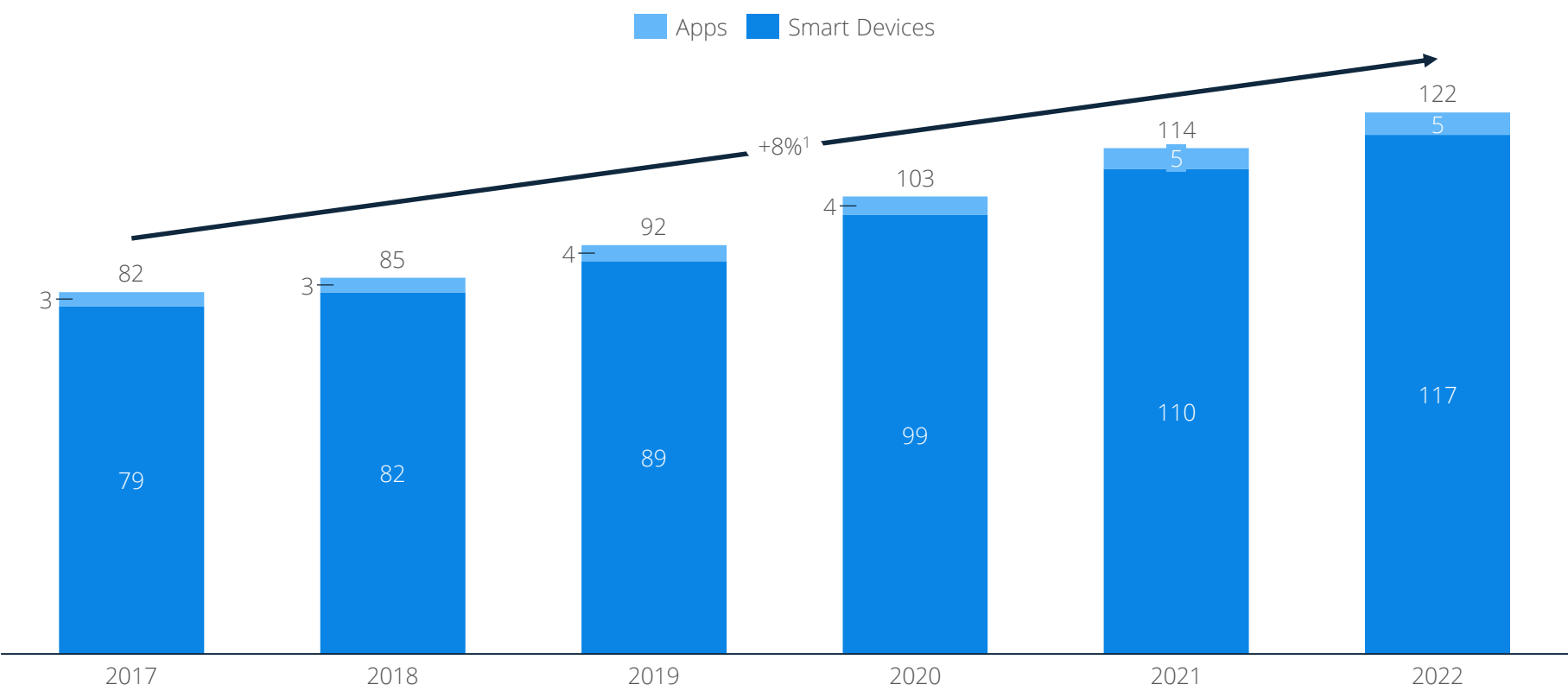
Key takeaways

- Revenues in the segment eHealth solutions for Hypertension amount to US\$82 million in 2017
- Revenue is expected to show an annual growth rate (CAGR¹ 2017-2022) of 8.4%, resulting in a market volume of US\$122 million by 2022
- The average revenue per user (ARPU) currently amounts to US\$3 in Apps and US\$37 in Devices
- From an international perspective, most revenue is generated in the United States

Revenues of Smart Devices are increasing at a CAGR¹ of 8%

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

Revenue in million US\$



Hypertension Devices will constantly generate the highest average revenue per user

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

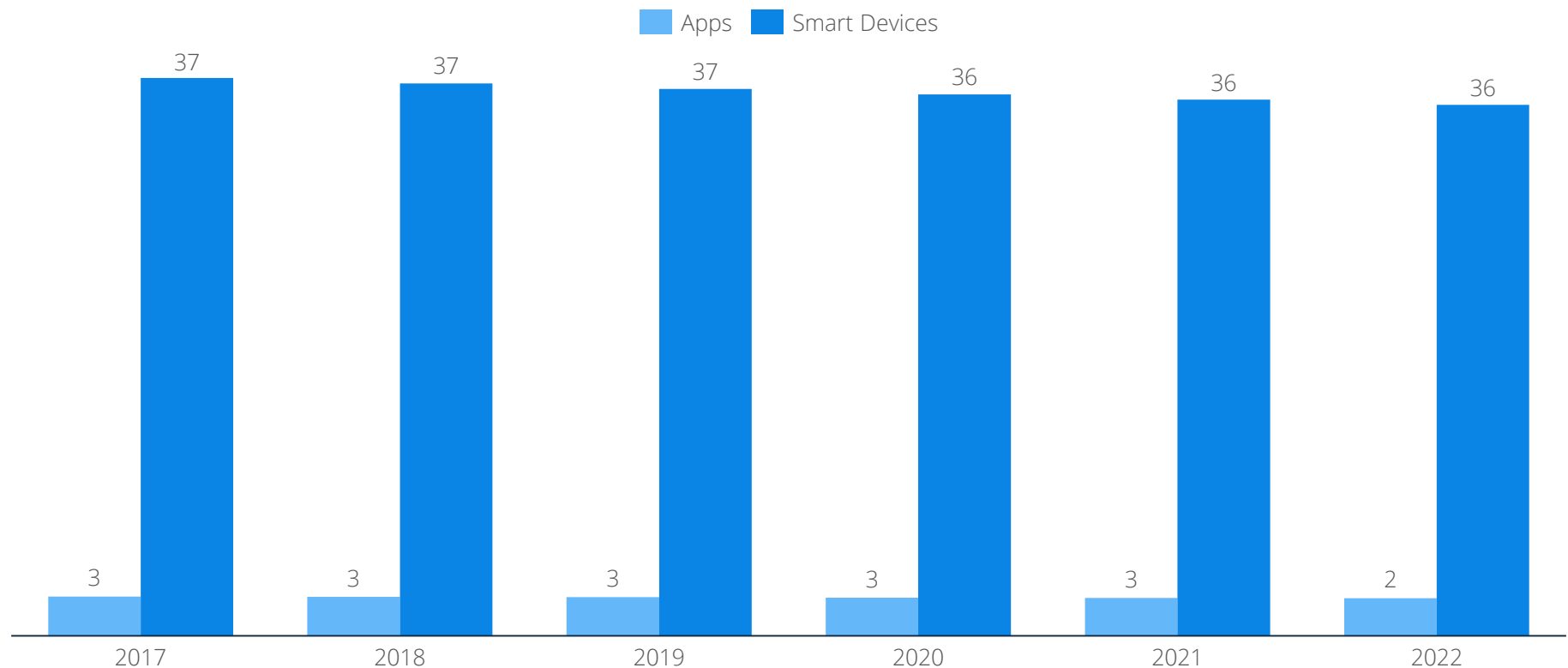
Paying users in million

Segment	2017	2018	2019	2020	2021	2022	CAGR ¹ 17 – 22
App	1.2	1.3	1.4	1.6	1.9	2.0	10.7%
Device	2.1	2.2	2.4	2.7	3.1	3.3	9.4%

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\$



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 Evolv** 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, **Omron** 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 Omron 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.





CONSUMER INSIGHTS

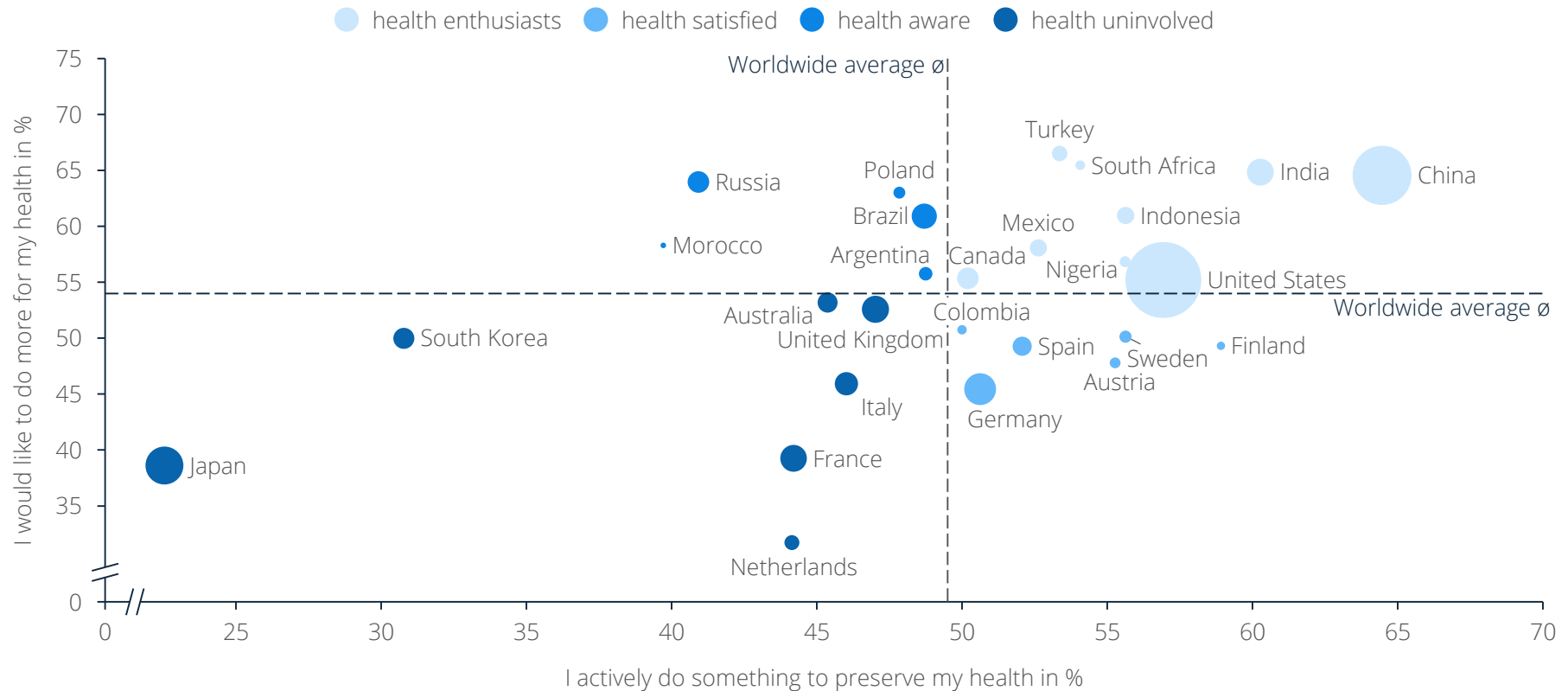
The Consumer Insights provide a broad overview and understanding of the country-specific consumer behavior in the context of eHealth.

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 online consumers 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

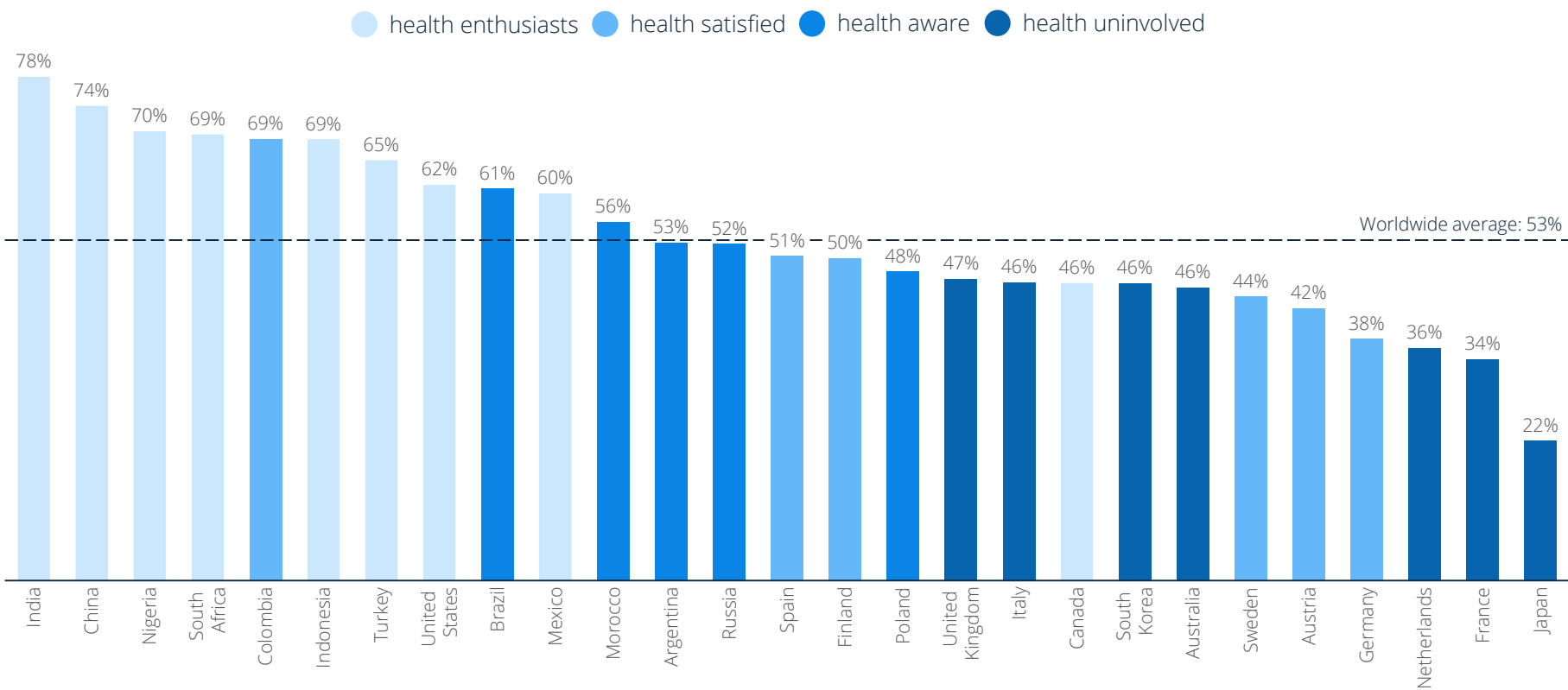


Note: Dot size depicts GDP; "Which of these statements do you agree with?"; n=31,779
Source: Statista Global Consumer Survey, data from June 2018

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

Consumer attitudes: global consumer lifestyles (2/2)

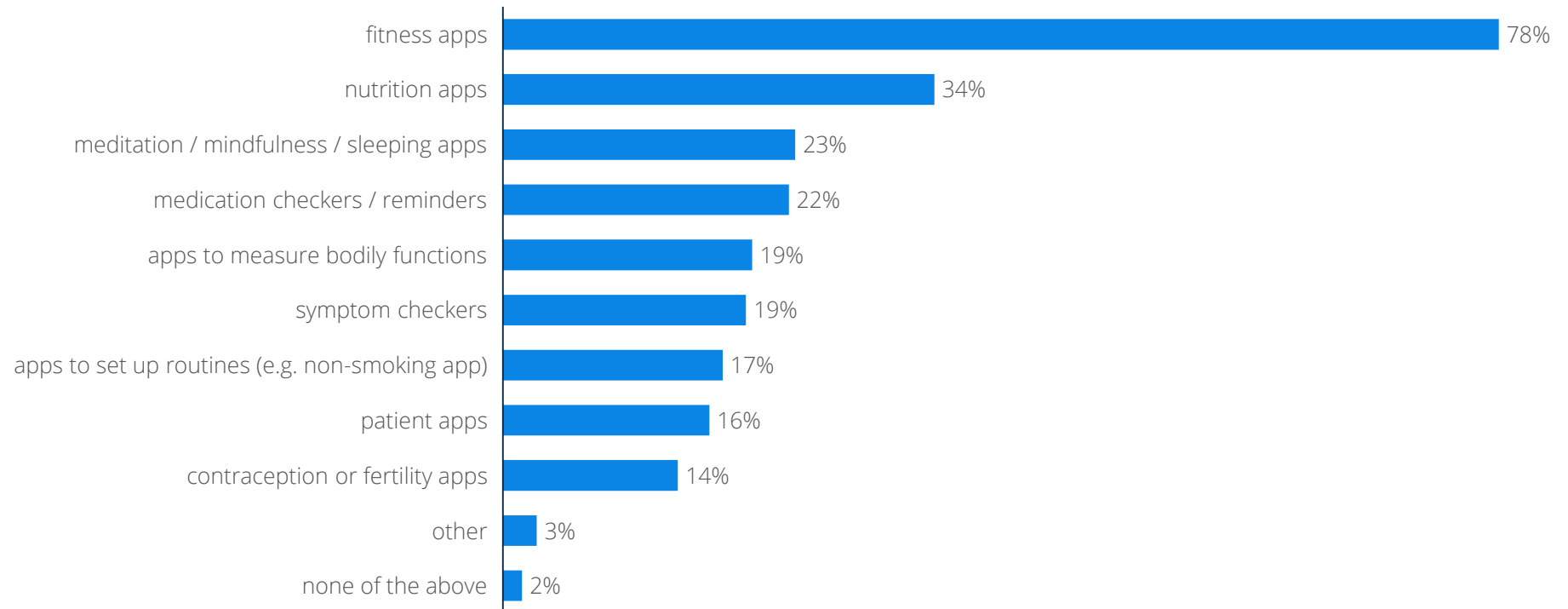
Share of respondents who use eHealth apps and/or devices



Fitness apps are the most popular eHealth apps in the U.S.

Usage of eHealth products: preferred services and devices (1/5)

Use of eHealth apps in the past 12 months



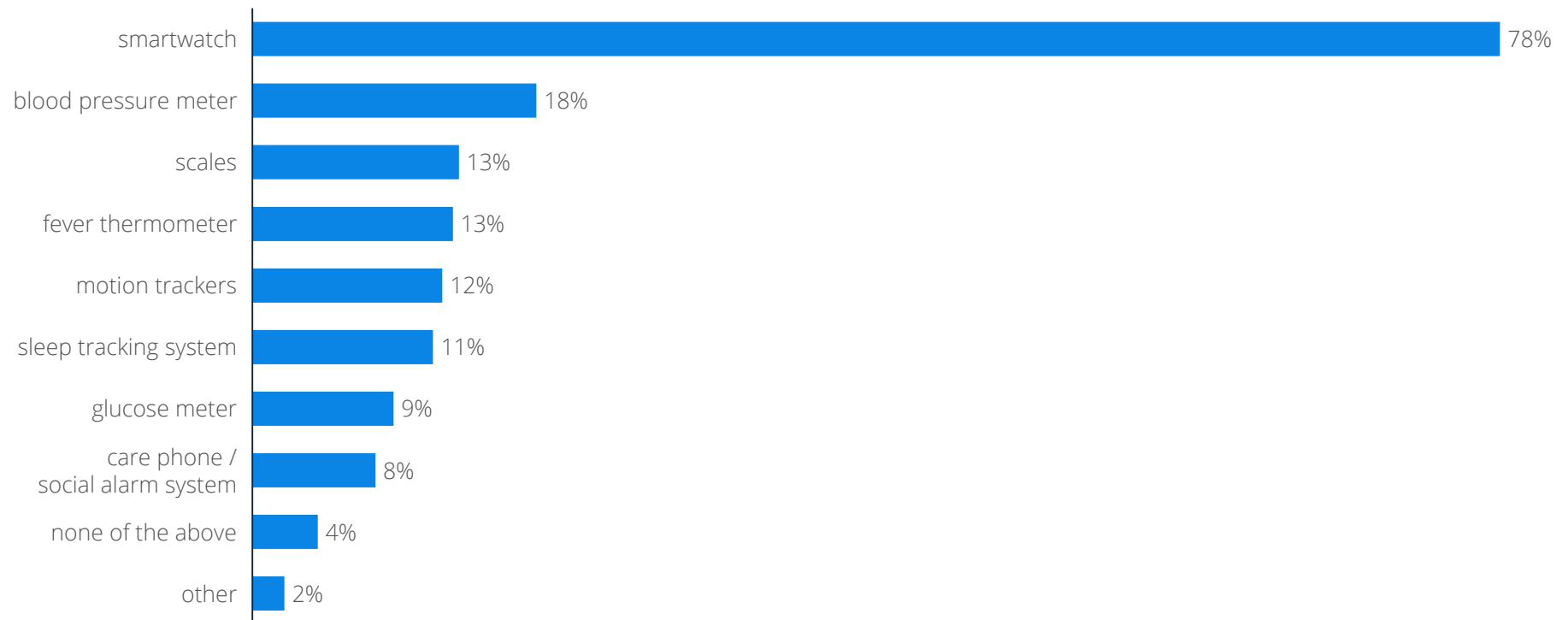
"Which of these health apps have you used in the past 12 months?"; Multiple response; n= 2000, respondents who used health and/ or fitness apps in the past 12 months

Source: Statista Global Consumer Survey, data from June 2018

Smartwatches are by far the most frequently used smart health devices in the U.S.

Usage of eHealth products: preferred services and devices (2/5)

Use of smart health devices in the past 12 months



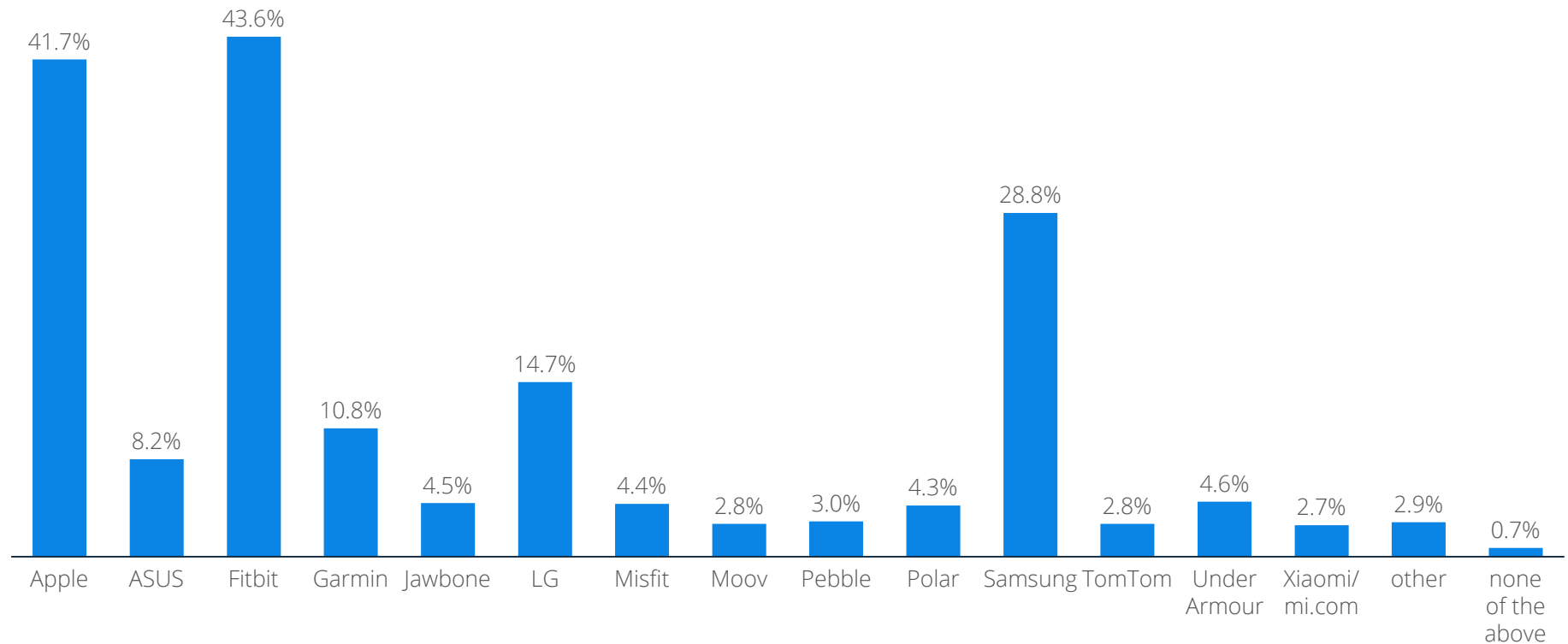
"Which of these smart health devices have you used in the past 12 months?" Multiple response; n= 1054, respondents who used connected health devices in the past 12 months

Source: Statista Global Consumer Survey, data from June 2018

Fitbit and Apple smartwatches are most popular among U.S. Americans

Usage of eHealth products: preferred services and devices (3/5)

Ownership of eHealth trackers and smartwatches by brand

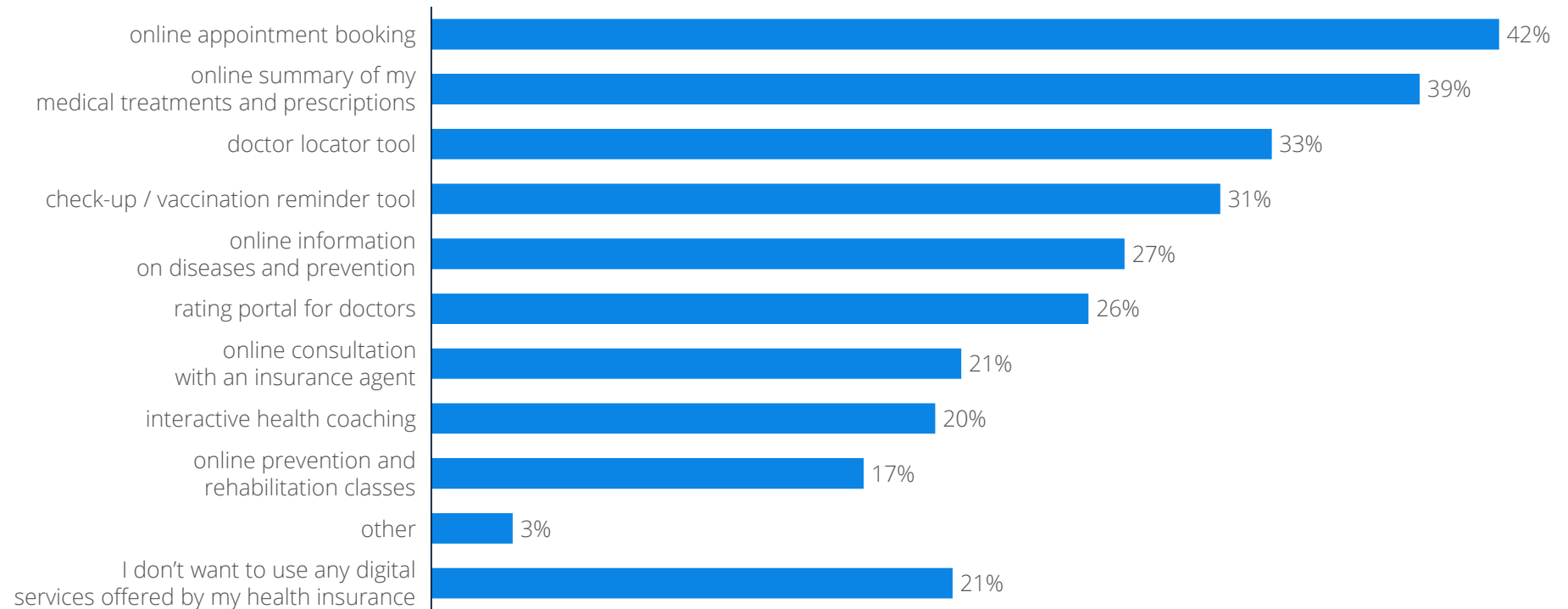


"Which of these providers do you own a fitness or health tracker or a smart watch from?"; Multiple response; n= 677, respondents who use fitness trackers, smartwatches with fitness function, motion trackers or sleep tracking systems
Source: Statista Global Consumer Survey, data from June 2018

Close to 80% of U.S. residents would like to use digital services offered by their health insurance provider

Usage of eHealth products: preferred services and devices (4/5)

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



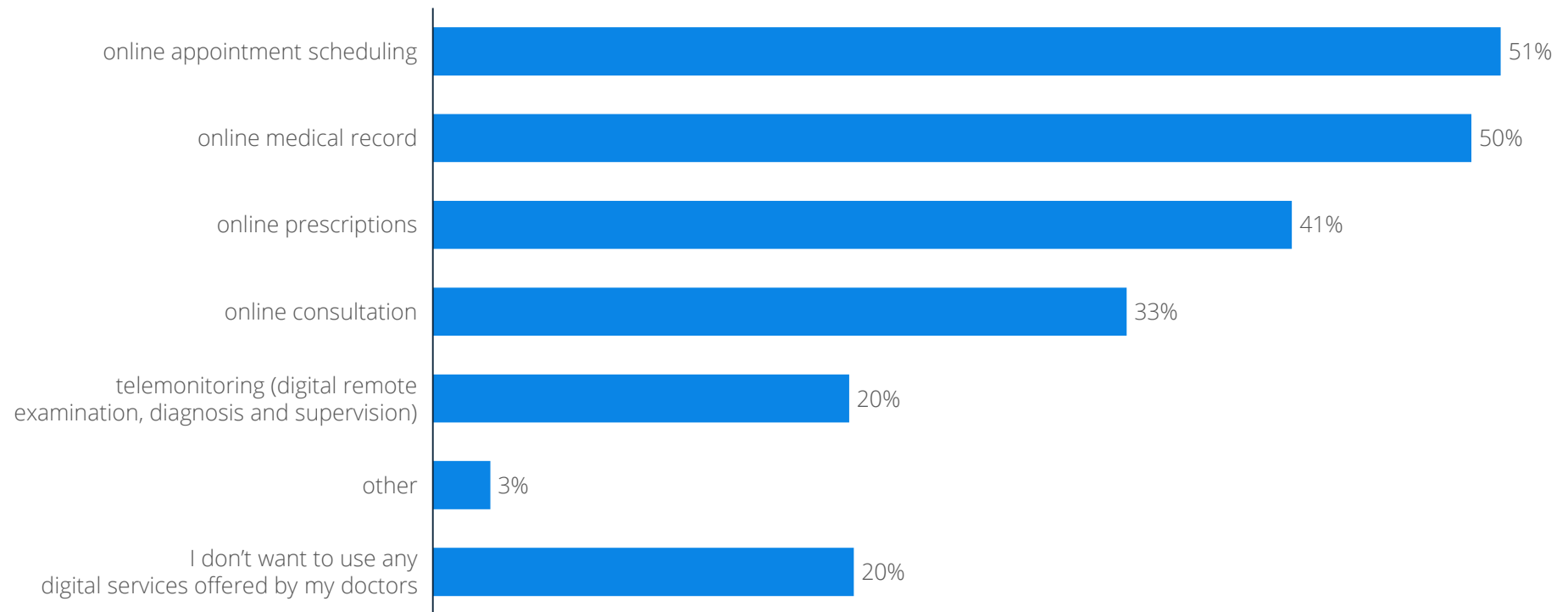
"Which of these digital services offered by your health insurance provider would you like to use or do you already use regularly?"; Multiple response; n= 4092

Source: Statista Global Consumer Survey, data from June 2018

Close to 50% in the U.S. would like to use online medical records and appointment scheduling

Usage of eHealth products: preferred services and devices (5/5)

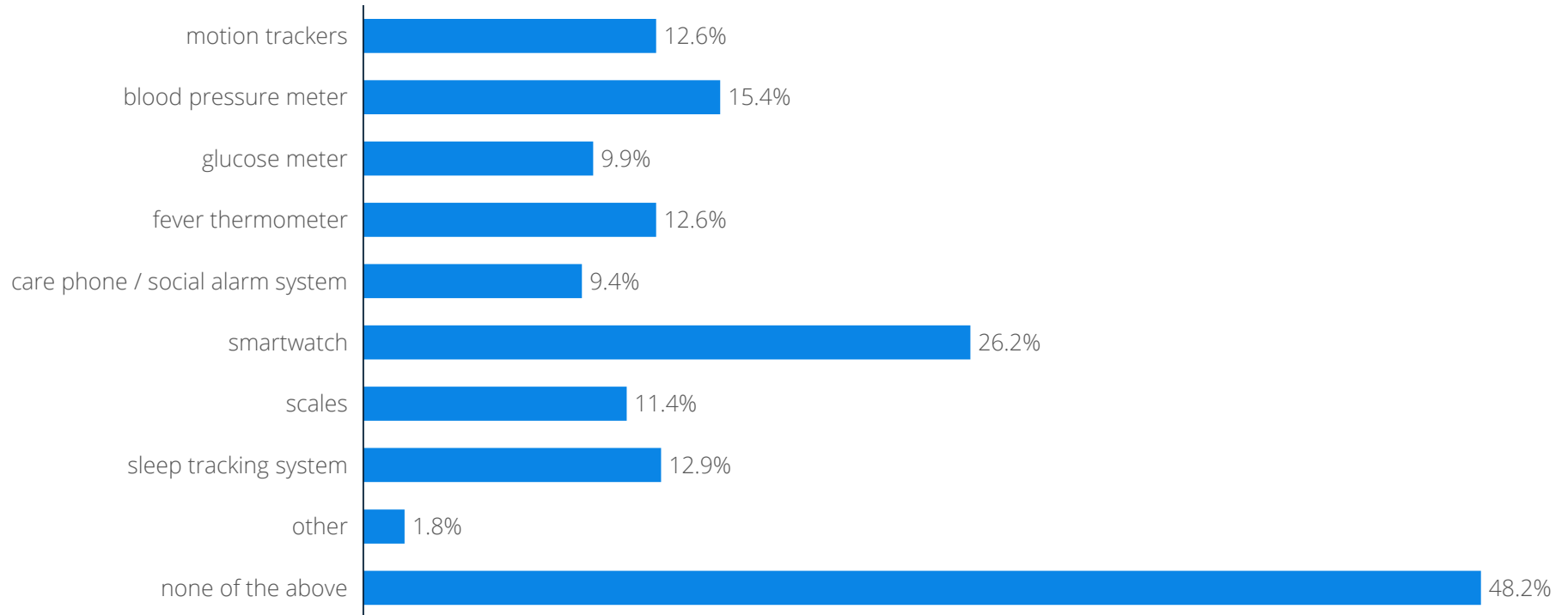
Use and willingness to use digital services offered by the doctor



Around 50% of U.S. Americans are not planning on buying an eHealth tracker or a smartwatch

Limitations of the eHealth market: consumer refusal (1/2)

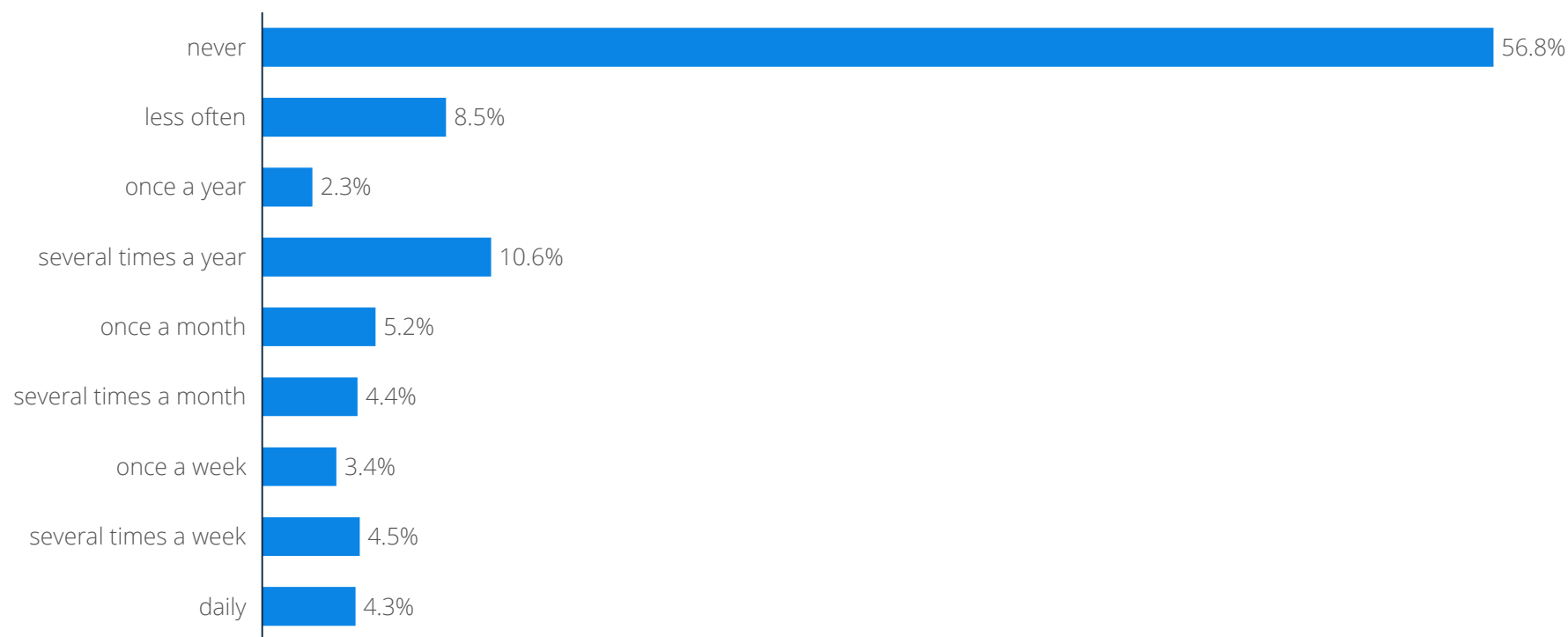
Intention of purchasing eHealth smart devices in the next 12 months



56.8% of U.S. Americans do not buy medication online

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

Shopping frequency in online pharmacies



About the Statista Digital Market Outlook

9 markets, 35 segments & 85 sub-segments



Digital Media

Video-on-Demand, Digital Music, Video Games, ePubublishing



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

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Access to more than 1,000,000 statistics and all digital markets

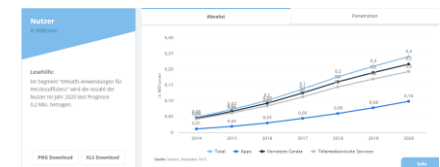
[more information](#)

Details

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



- User count & penetration

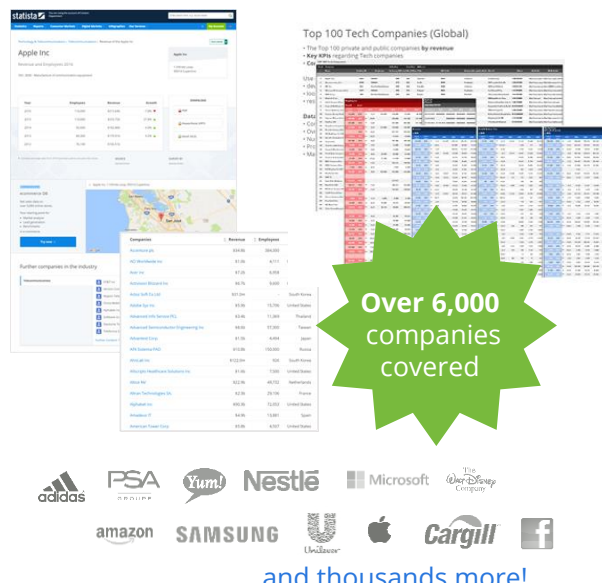


- Comparable data



Statista Toplists and Company Database

Find information on top companies worldwide



Your starting point for further market assessment

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

... in a given industry

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



Most important company key figures

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

... in a given region

- Global
- Germany
- U.S.
- Southeast Asia
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Imprint

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