

GERMAN PHARMACIES

FIGURES · DATA · FACTS

2022

ABOUT THE ABDA

- » The ABDA – Federal Union of German Associations of Pharmacists is the top-level organisation for pharmacists in Germany. The ABDA represents the interests of the pharmaceutical healthcare professions in politics and society while promoting high-quality, comprehensive pharmaceutical care in Germany.
- » The ABDA has 34 members: 17 regional chambers of pharmacists and 17 regional associations of pharmacists – one from each of Germany's 16 federal states plus an additional representative from North Rhine-Westphalia which has been divided into North Rhine and Westphalia-Lippe due to its size.
- » The 17 chambers of the Federal Chamber of Pharmacists (BAK) and the 17 associations in the German Pharmacists' Association (DAV) are combined under one roof in ABDA. Membership in the Chamber of Pharmacists is mandatory for all pharmacists while membership in associations for pharmacy owners, on the other hand, is voluntary.
- » ABDA's Executive Board is composed of 13 members: the president, the vice president, an employed pharmacist from a community pharmacy along with five members each from the BAK and DAV executive boards.
- » The annual general assembly for pharmacists takes place once per year as part of German Pharmacists' Assembly. The annual general assembly is used to form political positions. Its resolutions are binding for the ABDA committees' actions.
- » The offices of ABDA, BAK and DAV are in Berlin and are run by the general manager. In addition to the four business areas, a) pharmacy, b) pharmaceuticals, c) economics and d) law, there are staff positions for a) finances, personnel and administration, b) communications and c) European affairs.
- » European representation for ABDA is headquartered in Brussels (Belgium) and is responsible for representing its interests in European Union (EU) institutions.
- » The ABDA is a member of the German Federation of Independent Professionals (BFB), the Pharmaceutical Group of the European Union (PGEU), and the International Pharmaceutical Federation (FIP).
- » The ABDA receives professional support from many institutions, including the Drug Commission of German Pharmacists (AMK), the German Institute for Drug Use Evaluation (DAPI) as well as the Central Laboratory of German Pharmacists (ZL).

PHARMACIES IN GERMANY

- » In order to work as a pharmacist in Germany, one must study for 5 years at university: 2 years each of basic and main studies and 1 year of practical training. Each course of study ends with a state examination. Upon successful completion, one must apply for a license to practice pharmacy, which is authorisation to exercise the profession.
- » Pharmacists with a foreign pharmaceutical diploma or certificate need to have it recognised prior to starting to work. There is a responsible authority for the recognition in every federal state. The responsible authority will check the equivalency level of the qualification. If there are significant divergences in the qualification, the responsible authority might propose measures to compensate the gaps. Moreover, applicants need to give proof of their language skills in German.
- » Pharmacists in Germany are not only part of the healthcare professions (like doctors) and freelance professions (such as architects), but also pharmacy owners which means they are also merchants who are therefore required to pay business taxes.
- » Freedom of establishment has been created for pharmacists in Germany. According to this principle, a pharmacist may establish a pharmacy anywhere and anytime, provided that he complies with the law. This also means that no pharmacist is protected from unwanted competition in the vicinity.
- » In Germany, the owner/operator of a pharmacy must always be a pharmacist. This third-party ownership ban emphasises a pharmacist's personal responsibility and liability – and decouples the provisioning of pharmaceuticals from corporate profit goals.
- » The ownership of multiple pharmacies is forbidden in Germany. However, a pharmacist may, in addition to the main pharmacy, operate up to three subsidiary pharmacies in the nearby local vicinity. Each of these locations must also have a pharmacist in place as subsidiary manager. There are no pharmacy chains in Germany.
- » Selling pharmaceuticals via mail order is allowed in Germany. Approved mail order pharmacies are "normal" community pharmacies with a special mail order permit. According to a list from the Federal Ministry of Health, the mail order trade is also allowed from a few other European countries.
- » Prices for prescription-only pharmaceuticals are uniform nationwide; this is stipulated by the Drug Price Ordinance to protect patients and pharmacists. Since the Pharmacy Strengthening Act (VOASG) came into force in December 2020, mail order pharmacies have been prohibited from offering discounts on prescription drugs to SHI-insured patients. The amendment to § 129 German Social Code V (SGB V) thus restored equal pricing/nationwide fixed prices between community pharmacies and mail order pharmacies. In contrast, all pharmacies are free to set their own price for non-prescription medications.
- » The pharmacist's fee for consultation on a prescription medication is regulated by the Drug Price Ordinance. Broadly speaking, this is a fixed fee of 8,35 euros per package. Each pharmacist may calculate their own fee for non-prescription pharmaceuticals.
- » Pharmacists in Germany assume an obligation for the common good of society. This is not individually remunerated but, rather, it is individually subsidised. This includes creating formulations, dispensing narcotic substances and performing comprehensive evening and emergency services.
- » During 2022, German pharmacies are preparing for two important new service ranges for their customers: with the electronic prescription (e-prescription), patients can access their pharmacy not only in person, but also online at any time, and have their medications delivered by a courier. With new pharmaceutical services, pharmacies can offer their patients free, comprehensive, personal consultation, regardless of the individual prescription, e.g. with the "Extended Medication Advice in case of Polymedication" for chronically ill patients.

MAP OF GERMANY

- » The red pharmacy A (with chalice and snake) is the identifying symbol for community pharmacies in Germany. This registered trademark of the German Pharmacists' Association (DAV) enjoys special legal protection throughout Germany and Europe.



“APOTHEKE 2030” PERSPECTIVE PAPER

- » The policy paper “Pharmacy 2030 – Perspectives on provision of pharmacy services in Germany” (“Apotheke 2030”), was adopted by a vast majority on German Pharmacist Day 2014 in Munich. This was preceded by an opinion-forming process in which several thousand pharmacists participated over the course of an entire year.
- » The preamble reads as follows: “Pharmacists in Germany are experts in pharmaceuticals. Based on this core competency, they make an indispensable contribution to patients’ well-being in outpatient care. As freelance health professionals, they carry out their legal mandate of comprehensive pharmaceutical provisioning to the German public via public, owner-operated pharmacies.”
- » The healthcare system in Germany faces great challenges such as demography, a lack of professionals and financial pressure on resources. Therefore, for the benefit of our patients, the healthcare role of the pharmacy must be actively defined so that healthcare may maintain a key role in the future as well.
- » “Apotheke 2030” describes how the pharmacy’s role and range of services should be advanced as a pillar of the healthcare system. Essentially, it concerns ways in which pharmacies may strengthen their role in healthcare while collaborating as part of a network with doctors and other specialised professionals thus making true medication management for patients possible.
- » Three issues are at the forefront when strategically implementing the document: First, pharmacists must define the correct way in which to systematically implement medication management. Secondly, provisioning frameworks must be adapted for the future. Thirdly, pharmacists must determine what the future holds regarding pharmacist qualification (education, advanced and continuing education).
- » Pharmacies in Germany wish to continue offering medication management as a crucial instrument for safe, effective and economical pharmaceutical therapy in the future. In so doing, all of a patient’s medication, including self-medication, will be continually analysed. The goal is to avoid, detect, and solve problems related to pharmaceuticals and, in so doing, increase the effectiveness and efficiency of pharmaceutical therapy.
- » Pharmacists wish to collaborate collegially both among each other and with other healthcare professions as part of a healthcare network. Pharmacies will actively co-design the healthcare network with clearly defined competencies and interfaces. As an integral component of the network, they will assume responsibility for pharmaceuticals, the safety of pharmaceutical therapy and the optimization of practices.
- » An updated and expanded perspective paper, “Apotheke 2030”, was released in January 2022. It was adjusted to reflect the latest developments in society, politics and science.

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AN OVERVIEW OF PATIENT CARE SERVICES

Pharmacies have the legal mandate to ensure pharmaceutical supply to the population. This applies to every individual pharmacy as well as the nationwide distribution of all pharmacies across Germany. As well as providing finished dosage forms (FDF), pharmacies fulfil obligations to the common good, such as nighttime and emergency services and the preparation of formulations.

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LEGAL INFORMATION

18,461

community pharmacies supply pharmaceuticals to the people of Germany (as of late 2021).

1 billion

patient interactions per year in community pharmacies.

3 million

patients served per day in community pharmacies.

300,000

courier deliveries completed per day.

6 million

industrially produced pharmaceuticals tested by pharmacists annually.

88 %

of patients who regularly take three or more medications usually visit the same pharmacy.

83 %

of German citizens trust their pharmacist.

83 %

of adults describe the quality of health care services provided by local pharmacies as good to excellent.

93 %

of German citizens are satisfied or very satisfied with local pharmacies.

The following may contain deviations in totals due to the rounding of figures.

Source: ABDA statistics, Forsa Gesellschaft für Sozialforschung und statistische Analyse mbH, infas Institut für angewandte Sozialwissenschaft GmbH, YouGov Deutschland GmbH, marpinion GmbH

PHARMACIES IN THE PANDEMIC RESPONSE

Since the outbreak of the COVID-19 pandemic in spring 2020, Germany's community pharmacies have not only ensured the supply of everyday pharmaceuticals – they have also assumed numerous special tasks to reduce the risk of transmission, as well as safely supplying medications to people self-isolating at home. Courier services, disinfectant, face masks, rapid tests and vaccination certificates – these phrases are representative of the wide, and sometimes novel, range of services offered by pharmacies during the pandemic. Often within just a few days, pharmacies adapted to extensive legal regulations in order to offer the best-possible support for their patients during this difficult time. Since early 2022, administration of COVID-19 vaccines has also been permitted in pharmacies specially qualified and equipped for this purpose.

5.1 million

litres of disinfectant were produced by pharmacies between March and May 2020 to compensate for supply shortages from industrial production.

440 million

FFP2 masks were procured, prepared and distributed for 30 million people. Pharmacies were charged with this supply mandate between 15 December 2020 and 15 April 2021.

4,490

pharmacies offer free rapid COVID-19 tests. These can all be searched for by city and post code at www.mein-apothekenmanager.de (March 2022).

11.0 %

is the minimum amount of work time pharmacy employees spend managing supply shortages.

40.6 %

less time has been spent by pharmacies on the management of supply shortages since the start of the pandemic and the loosening of legal requirements for dispensing of rebate-contract medications.

18,120

pharmacies create COVID-19 certificates for documentation of vaccination or recovery status (March 2022).

97 million

vaccination and recovery certificates were issued by pharmacies between June and December 2021.

38.8 million

flu vaccine doses were supplied to doctors in 2020 and 2021.

89.8 million

COVID-19 vaccine doses were distributed to medical practices and company doctors by pharmacies in 2021, with particularly high demand in June, November and December. In addition, an estimated 10 million doses were distributed to mobile vaccination teams and the public health service.

1,064

pharmacies comply with the necessary conditions and offer COVID-19 vaccinations (April 2022).

approx. 100,000

COVID-19 vaccines were administered in community pharmacies between February and April 2022.

NIGHTTIME AND EMERGENCY SERVICE

The nighttime and emergency service is one of the most important obligations to the common good that pharmacies fulfil. Each pharmacy is assigned to do this by its regional chamber of pharmacists at regular intervals as required. Pharmacies receive a subsidy from the Emergency Service Fund of the German Pharmacists' Association to cover the additional cost, which is financed by a surcharge on each dispensed package of prescription drugs. Apothekenfinder 22 8 33 is a service that allows patients to find the nearest (emergency) pharmacy quickly and easily.

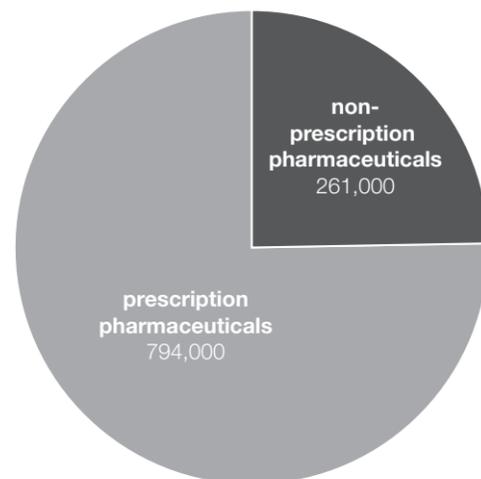
Night and emergency shifts in 2021	440,000
of which full shifts (20:00 – 6:00)	390,000
of which part shifts	50,000
Pharmacies open per night and emergency shift	1,200
Patients served per night and emergency shift	20,000

Different pharmacies have to provide emergency service to varying degrees. This can be seen in an example from the state of Bavaria: a pharmacy in Munich provides emergency service 14 times per year, whereas in Rothenburg, a much smaller town, it is over 70 times a year.

Prescriptions without emergency service fees for SHI-insured patients in 2021

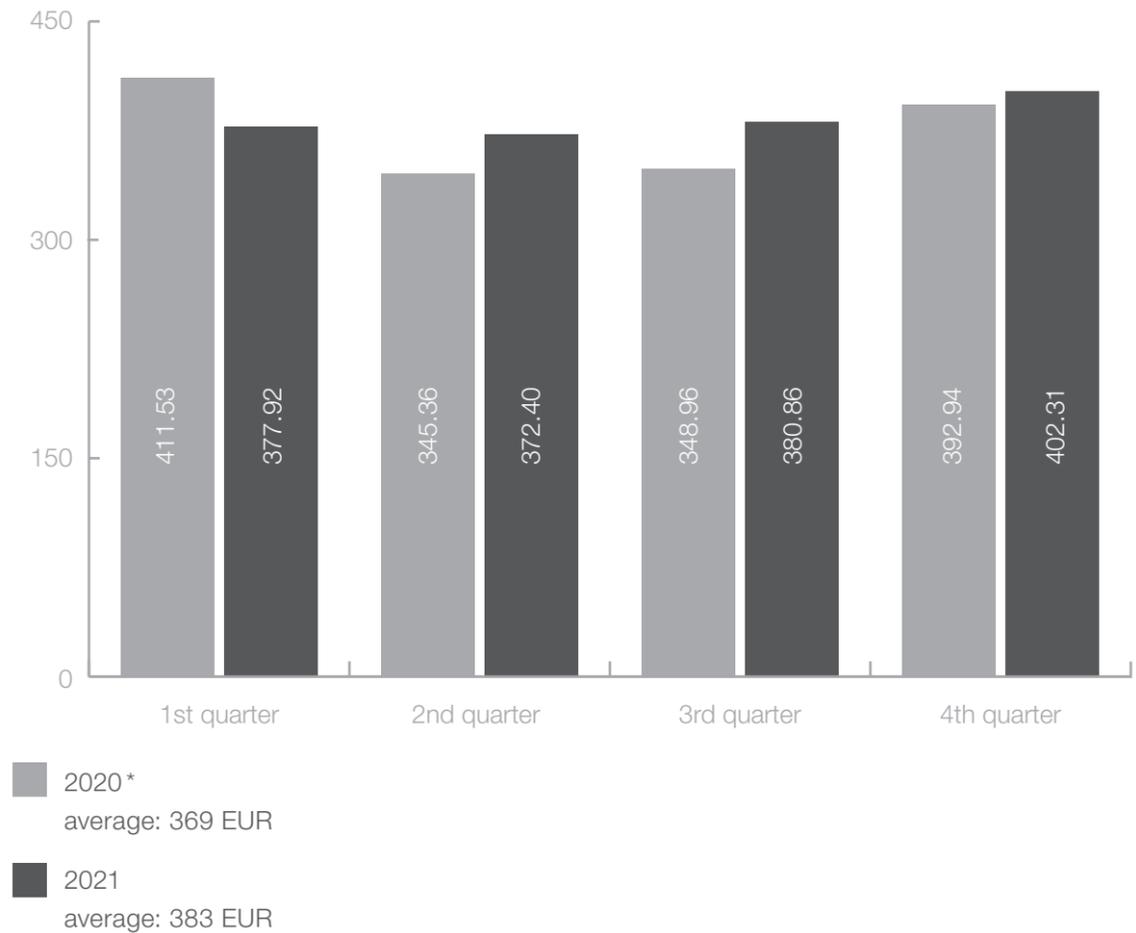
Many patients use pharmacies' night and emergency services for urgent self-medication (e.g. "morning-after pill") or to collect prescriptions. These can include private prescriptions or pink prescriptions charged to the SHI. If the doctor providing the emergency service crosses the "noctu" (Latin for "night") box on the pink prescription, the patient is not required to pay the emergency service fee of € 2.50 and the fee and is covered by their health insurance. Patients with statutory health insurance were exempt from this fee for more than a million packages in 2021.

Total
1,055,000 packages

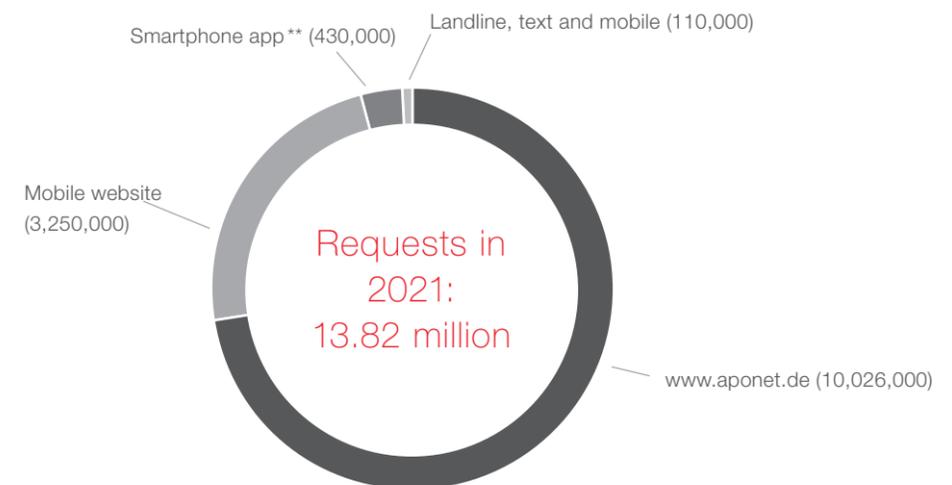


Source: Emergency Service Fund, aponet.de, German Institute for Drug Use Evaluation (DAPI)

Emergency service charge per full shift performed (in EUR)



Apothekenfinder 22 8 33



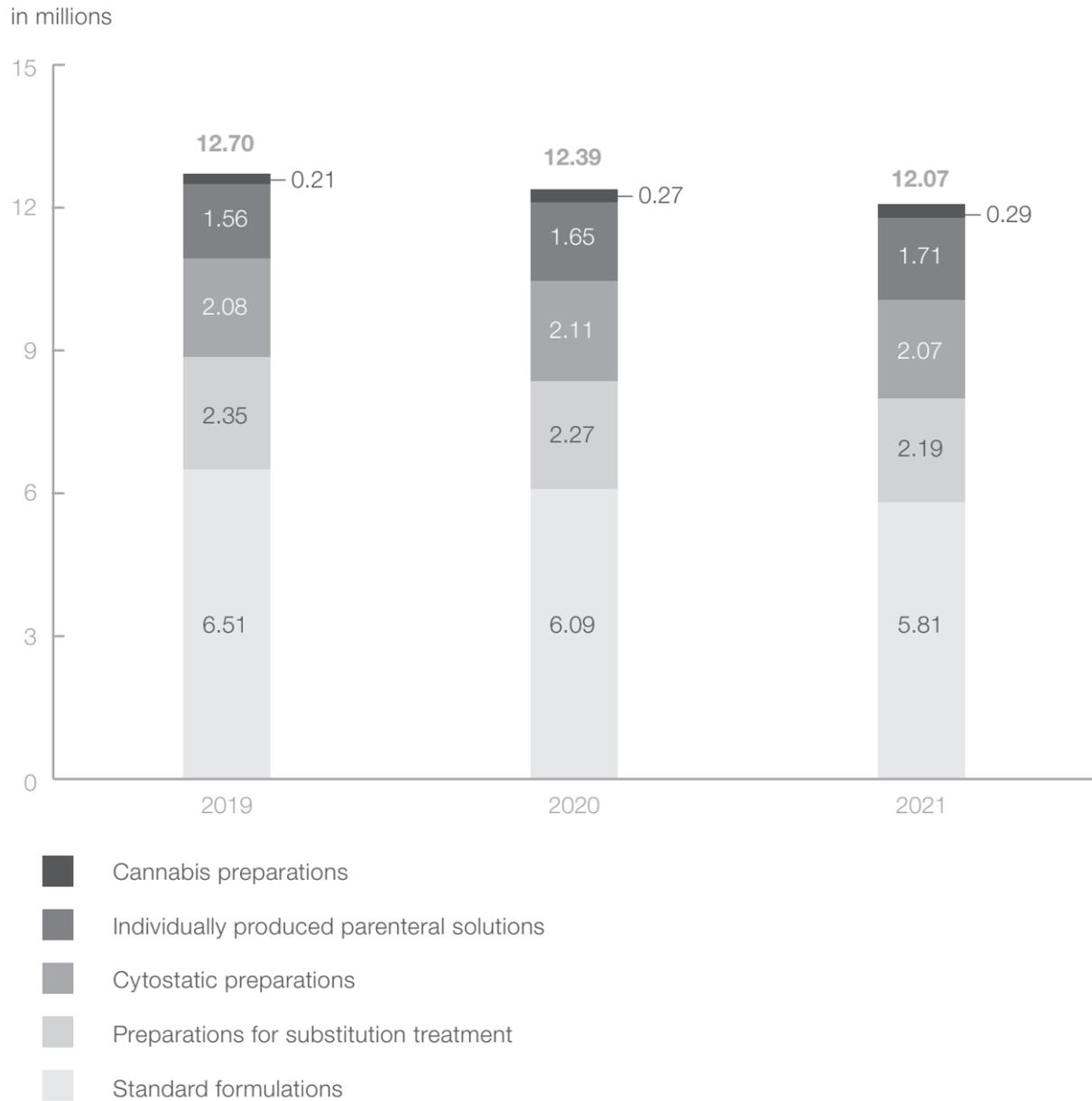
* As of 1 January 2020, the fixed mark-up to support the Emergency Service Fund was raised from € 0.16 to € 0.21 per package of prescription drugs.

** The Apothekenfinder app was removed from app stores on 30 September 2021.

Source: Emergency Service Fund, aponet.de

FORMULATIONS

It is often the case that no finished dosage forms exist for a patient's specific pharmaceutical needs. Pharmacies bridge this gap by preparing individual formulations according to doctors' prescriptions. In 2021, around 12 million formulations were produced for patients with statutory health insurance (SHI).



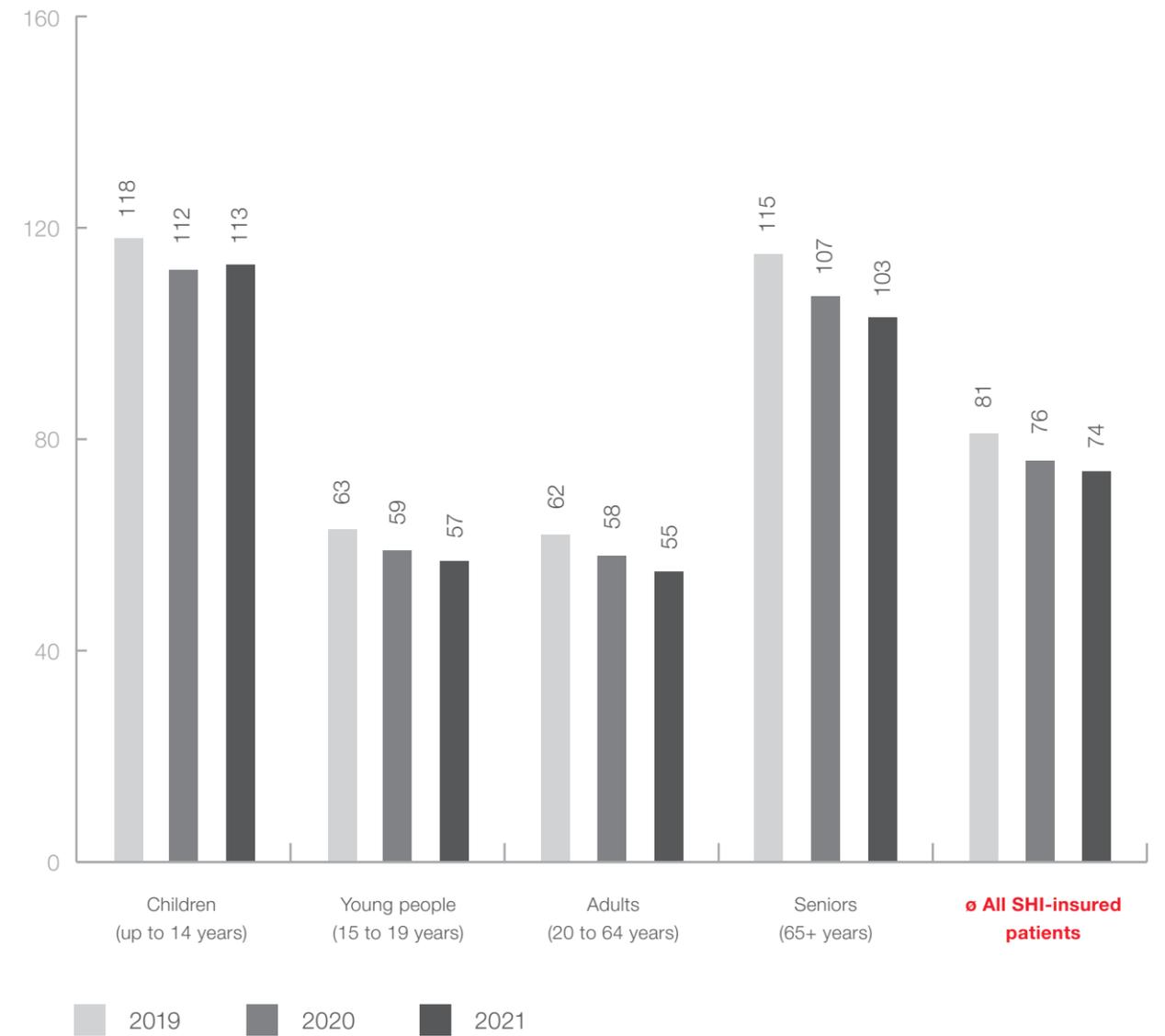
Source: National Association of Statutory Health Insurance Funds, ABDA statistics

STANDARD FORMULATIONS

Every year, pharmacies produce around six million standard formulations for SHI-insured patients as prescribed by doctors. Whether it's skin cream or fever-relief suppositories, any pharmacy can produce it in line with the patient's needs. Children in particular benefit from this. For example, if a medication is not available as a finished dosage form in a specific dosage, this can be specially prepared for them. Many seniors also need "special preparations".

Standard formulations per age group

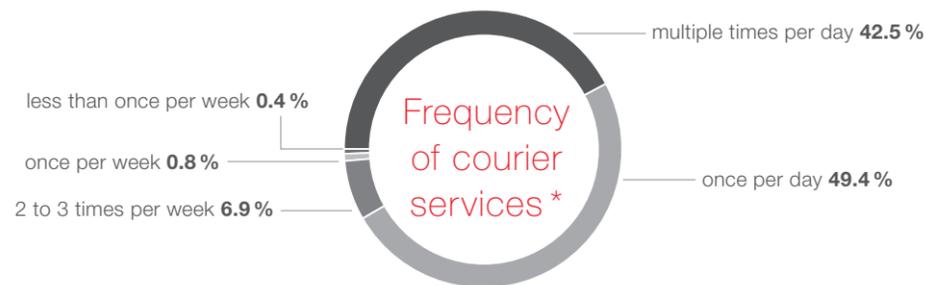
Number per 1,000 SHI-insured patients



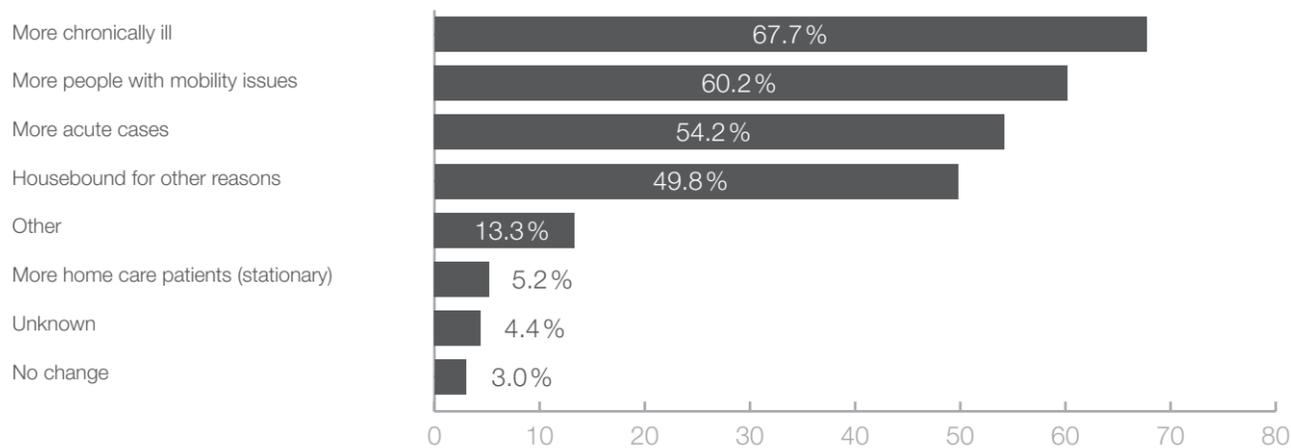
Source: German Institute for Drug Use Evaluation (DAPI)

COURIER SERVICES

Almost all pharmacies (97.4 %) offer courier services to save patients having to travel to collect their medications. This is particularly helpful for patients with mobility issues. Pharmacy staff render this service about 300,000 times a day, and this number rose to over 450,000 during the height of the pandemic. Consultation about the medications is usually given beforehand at the pharmacy, over the phone or by pharmacy staff upon delivery. Since April 2020, it has been possible to bill a portion of the cost of the delivery service to statutory health insurance funds.



Patient groups supplied via courier services



Billed delivery services for SHI-insured patients

(special ID code 06461110)



* Survey as part of the 2021 ABDA data panel

Source: ABDA data panel, German Pharmacists' Association (DAV), German Institute for Drug Use Evaluation (DAPI)

DIGITAL PHARMACY

Digitalisation is gathering speed in the health care industry. However, pharmacies have given themselves a head start by introducing the use of information technology (IT) in their daily work before the other participants in the market. They now use it for a wide range of tasks, such as ordering pharmaceuticals from wholesalers, managing stock inventories, implementing rebate contracts, using databases to check side effects and interactions of medications as well as carrying out billing with health insurance funds via computer centres. The processes and services that lead to the pharmacy, such as e-prescriptions, e-medication plans and e-patient records, are also being digitalised at an increasing rate. The goal is to provide better care for patients.

39 million times per week. This how often medications are scanned in pharmacies to rule out drug counterfeiting using a data matrix code in the securPharm system.

15.97 million data sets are stored in pharmacy computer systems for the purpose of allocating rebate contracts to health insurance funds, manufacturers and pharmaceuticals (January 2022).

13.82 million searches (mostly online) are carried out every year by patients in Apothekenfinder 22 8 33 to find the nearest emergency pharmacy, whose address and opening times are currently found there.

590,000 contract and pre-qualification checks are conducted every week by pharmacies on the online contract portal (OVP) to provide their patients with medical aids.

104,000 drugs approved in Germany can be found in the pharmacy computer system using their pharmaceutical registration number (PZN) (January 2022).

50,000 instruction leaflets and items of specialist information are stored in the ABDA-Datenbank² to assist consultations in pharmacies and minimise risks (March 2022).

20,000 different drugs (pharmaceutical registration numbers) are listed as rebate drugs by health insurance funds (January 2022).

12,000 images of finished dosage forms are stored in the ABDADatenbank² to improve drug safety in pharmacies (March 2022).

Source: ABDA – Federal Union of German Associations of Pharmacists, ABDATA, securPharm e.V., aponet.de

TELEMATICS INFRASTRUCTURE AND E-PRESCRIPTIONS

The upcoming introduction of e-prescriptions represents a significant change for pharmacies. Surveys have shown that pharmacists are ambivalent about the change. 86.6% of pharmacy owners are worried that e-prescriptions, which are set to replace the pink paper prescription in 2022, will lead to an increase in mail-order trade. The technical standards for this are being defined by gematik GmbH on behalf of the Federal Ministry of Health (BMG).

Integration into telematics infrastructure

100 % of pharmacies have institution cards (SMC-B)

100 % of pharmacy owners and managers have an electronic healthcare professional card (HBA)

98 % of pharmacies are connected to the healthcare network of the telematics infrastructure (TI) via “e-health connectors” (March 2022)

96 % of pharmacies are TI-ready (September 2021)

30 % of pharmacies (approx. 6,000) have already integrated the e-medication plan (eMP) into their software systems (September 2021)

Source: German Pharmacists' Association (DAV), gematik GmbH, pharmacy climate index 2021 (marpinion GmbH)

What do pharmacy owners expect to result from the introduction of the electronic prescription?

More mail-order trade for pharmaceuticals	86.6 %
Tougher competition between community pharmacies	48.4 %
Less customer loyalty and fewer regular customers	41.0 %
Fast, convenient purchase of medications for patients	27.2 %
Fewer refusals for reimbursement from health insurance funds	25.4 %
Fewer forged prescriptions	18.8 %
Fewer consultations with doctors	16.8 %
Avoidance of unnecessary contact like in the COVID-19 pandemic	4.6 %
None of the above	1.6 %

What internal steps and measures are pharmacy owners planning for the introduction of the e-prescription?

Restructuring teams and workflows	67.0 %
Expanding courier services	51.2 %
Investing in digital marketing	38.0 %
Offering pharmaceutical teleconsultations	24.2 %
Expanding existing mail-order trade activity	9.4 %
Establishing mail-order trade	9.4 %
No measures	13.4 %

Source: German Pharmacists' Association (DAV), gematik GmbH, pharmacy climate index 2021 (marpinion GmbH), Emergency Service Fund

Refinancing of the telematics infrastructure (TI) in 2020 and 2021

15,000 community pharmacies have applied for refinancing of their new TI equipment

95.0 million EUR have been reimbursed to pharmacies by funding agencies and paid out via the DAV's Emergency Service Fund

this included

77.7 million EUR for new equipment

7.6 million EUR for operating cost allowances

7.4 million EUR for reimbursement for healthcare professional cards (HBA)

2.0 million EUR for reimbursement for the PTV-4 upgrade, which is required for the e-prescription and the electronic patient record.

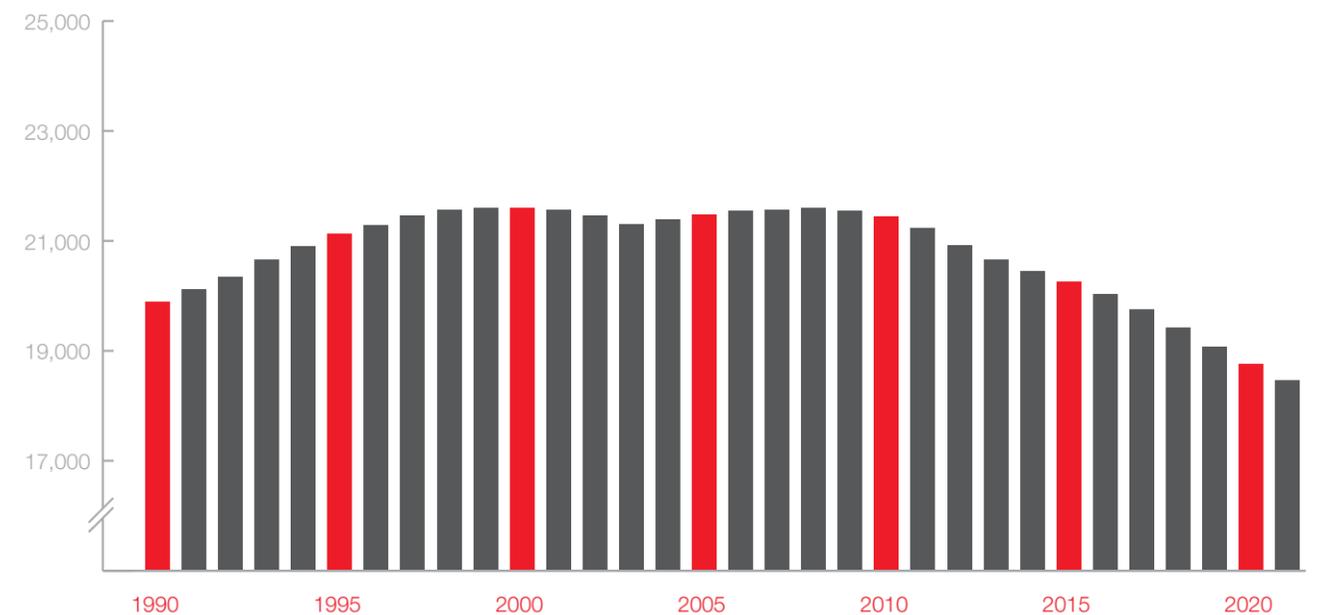
0.3 million EUR Field test

Source: German Pharmacists' Association (DAV), gematik GmbH, pharmacy climate index 2021 (marpinion GmbH), Emergency Service Fund

CHANGING NUMBERS OF PHARMACIES

The number of community pharmacies in Germany has been falling since 2009, and in 2021 it dropped to its lowest point since the early 1980s, at 18,461. Reasons for this include competition among different pharmacies and the conditions brought about by health policy. At current, there is no danger that the population will be unable to access medications anywhere in the country.

	1990	1995	2000	2005	2010	2015		2019	2020	2021
Number of pharmacies (incl. subsidiaries)	19,898	21,119	21,592	21,476	21,441	20,249		19,075	18,753	18,461
of which										
Main/individual pharmacies	19,898	21,119	21,592	20,248	17,963	15,968		14,473	14,110	13,718
Subsidiaries	—	—	—	1,228	3,478	4,281		4,602	4,643	4,743
Openings	—	372	187	326	263	154		107	85	77
Closures	—	156	185	242	370	346		455	407	369
Change	—	+216	+2	+84	-107	-192		-348	-322	-292



All figures as at year end

* Pharmacies with an operating licence according to §2 German Pharmacies Act (ApoG)

Source: ABDA statistics

NUMBER OF PHARMACIES BY FEDERAL STATE

The number of pharmacies in a given state depends, among other things, on the size and structure of the population and the land mass. North Rhine-Westphalia, which is divided into the chamber districts of North Rhine and Westphalia-Lippe, is Germany's most populous state. As such, it also has the highest number of pharmacies (3,900).

Federal State	Community pharmacies		of which main/individual pharmacies*	of which subsidiaries
	Number	Pharmacy density**		
Baden-Württemberg	2,340	21	1,695	645
Bavaria	2,967	23	2,207	760
Berlin	749	20	587	162
Brandenburg	563	22	402	161
Bremen	140	21	90	50
Hamburg	381	21	274	107
Hesse	1,412	22	1,043	369
Mecklenburg-Western Pomerania	382	24	293	89
Lower Saxony	1,806	23	1,339	467
North Rhine-Westphalia	3,882	22	2,885	997
North Rhine	2,085	22	1,561	524
Westphalia-Lippe	1,797	22	1,324	473
Rhineland-Palatinate	916	22	702	214
Saarland	282	29	224	58
Saxony	938	23	709	229
Saxony-Anhalt	572	26	426	146
Schleswig-Holstein	614	21	457	157
Thuringia	517	24	385	132
Total	18,461	22	13,718	4,743

All figures as at end of 2021

* Pharmacies with an operating licence according to §2 German Pharmacies Act (ApoG)

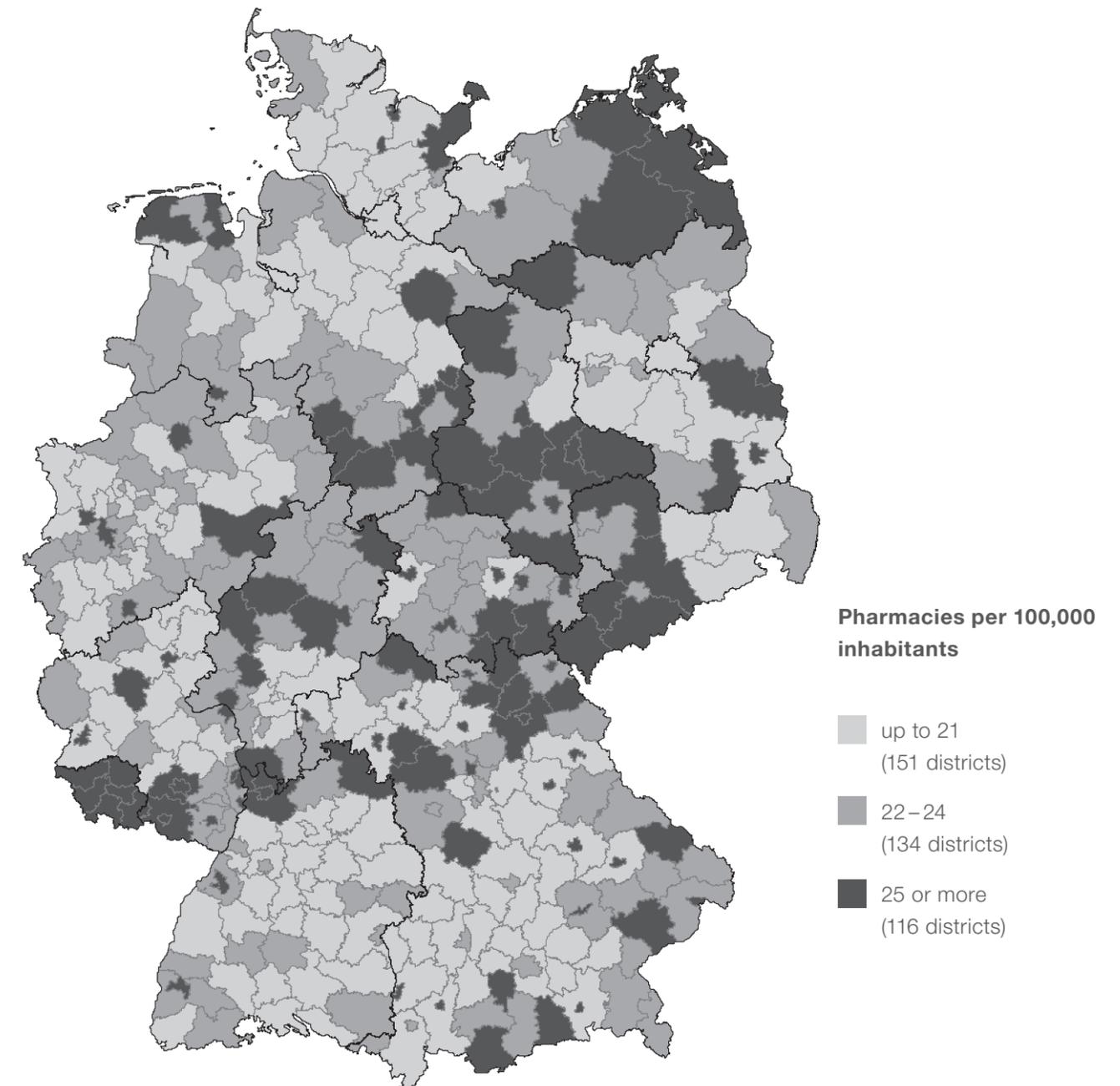
** Pharmacies per 100,000 inhabitants

Source: ABDA statistics

GEOGRAPHICAL COVERAGE

On average, there are 22 pharmacies per 100,000 inhabitants in Germany, but of course this number varies from region to region. The pharmacy density can vary based on the population, urban density and structure of cities and administrative districts. At current, the supply of medications to the population is guaranteed throughout Germany.

Pharmacy density by administrative district 2021

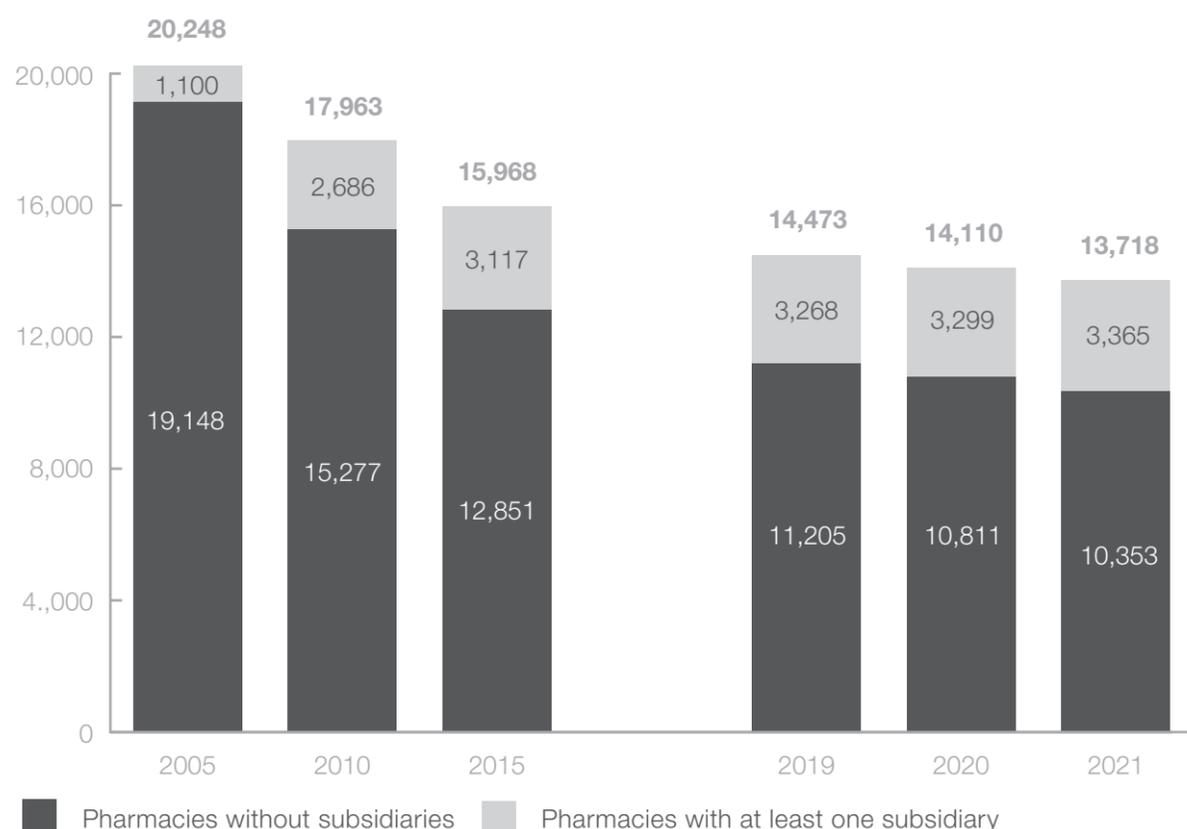


Source: ABDA statistics

SUBSIDIARY STRUCTURE

At the end of 2021, there were 13,718 pharmacy owners in charge of 18,461 business locations. Subsidiaries are being opened at an increasing rate. Under the 2004 SHI Modernisation Act, pharmacies can have up to three subsidiaries. Each subsidiary must have a pharmacist acting as the manager and be located in close proximity to the main pharmacy.

	2005	2010	2015	2019	2020	2021
Pharmacies without subsidiaries (individual pharmacies)	19,148	15,277	12,851	11,205	10,811	10,353
Main pharmacies with one subsidiary	989	2,057	2,229	2,257	2,278	2,314
Main pharmacies with two subsidiaries	94	466	612	688	698	724
Main pharmacies with three subsidiaries	17	163	276	323	323	327
Main/individual pharmacies	20,248	17,963	15,968	14,473	14,110	13,718



All figures as at year end

Source: ABDA statistics

SPECIFIC TYPES OF PHARMACY

Hospital pharmacies are not community pharmacies. All community pharmacies are owner-managed. With regard to the form of ownership, some pharmacies are run by several pharmacists as general partnerships (OHG). Leased pharmacies are established on a transitional basis, e.g. if the owner can no longer run the pharmacy due to old age. To ensure the supply of pharmaceuticals at local level, prescription collection points can also be approved which allow prescriptions to be transmitted, sometimes digitally, and supplied by an authorised pharmacy.

	2005	2010	2015	2019	2020	2021
Hospital pharmacies (§ 14 ApoG)	492	418	390	372	370	366
Pharmacies supplying hospitals (§ 1a Para. 1 Ordinance on the Operation of Pharmacies (ApBetrO))	489	414	383	164	162	159
OHG pharmacies (§ 8 ApoG)	385	492	662	749	754	787
Leased pharmacies (§ 9 ApoG)	1,635	1,193	880	657	605	568
Branch pharmacies (§ 16 ApoG)	39	12	11	10	10	10
Emergency pharmacies (§ 17 ApoG)	0	0	0	0	0	0

Prescription collection points (§ 24 ApBetrO) 2021

Baden-Württemberg	116	North Rhine-Westphalia	39
Bavaria	132	North Rhine	3
Berlin	0	Westphalia-Lippe	36
Brandenburg	73	Rhineland-Palatinate	74
Bremen	0	Saarland	8
Hamburg	0	Saxony	118
Hesse	155	Saxony-Anhalt	122
Mecklenburg-Western Pomerania	88	Schleswig-Holstein	46
Lower Saxony	103	Thuringia	77
Total			1,151

ApoG = Apothekengesetz (German Pharmacies Act)

ApBetrO = Apothekenbetriebsordnung (Ordinance on the Operation of Pharmacies)

Sources: ABDA statistics, IQVIA Commercial GmbH & Co. OHG

MAIL-ORDER TRADE

Mail-order sales of prescription and non-prescription medications have been permitted in Germany since 2004. The market share of the mail-order trade has already reached a double-digit percentage in the area of self-medication, but the share is much lower for prescription drugs.

OTC pharmaceuticals**	Sales volume 2021			Sales revenue 2021*		
	in millions of packages	Development from previous year	Market share	in million EUR	Development from previous year	Market share
Community pharmacies	533	-2.6%	79.7%	5,313	0.0%	79.6%
Mail-order trade (domestic and foreign)	136	-0.6%	20.3%	1,363	-1.3%	20.4%

SHI pharmaceutical expenditure***

	2017		2018		2019		2020		2021	
	in million EUR	Market share								
Community pharmacies	33,607	98.8%	34,384	98.7%	35,409	98.8%	37,518	98.8%	41,167	99.1%
Foreign mail-order trade	407	1.2%	437	1.3%	422	1.2%	458	1.2%	364	0.9%

Pharmacies with a mail-order licence (§ 11a ApoG)



* valued at the effective sales price
** excluding non-pharmaceuticals
*** the majority of SHI expenditure is on prescription drugs
**** professional webshop and price search engine listings

ApoG = Apothekengesetz (German Pharmacies Act)

Source: Insight Health GmbH & Co. KG, Datamed IQ GmbH, Federal Ministry of Health (BMG), ABDA statistics, own calculations

NUMBER AND AGE OF PHARMACISTS

At the end of 2021, there were around 69,000 pharmacists operating in Germany, with this number continuing to rise. The overwhelming majority work in community pharmacies, but pharmacists are also employed in the pharmaceutical industry, hospital pharmacies, universities and public authorities. Almost three quarters of licensed pharmacists are women.

Active pharmacists at:	2019	2020	2021	Female percentage 2021
Community pharmacies	52,876	52,996	53,285	73.7%
of whom pharmacy managers*	15,067	14,649	14,285	49.7%
Hospital pharmacies	2,539	2,677	2,774	73.9%
Industry, administration, professional organisations, academia	11,767	12,183	12,732	62.3%
Pharmaceutical industry	7,221	7,436	7,856	63.7%
German armed forces	231	242	231	32.5%
Authorities and bodies	1,062	1,140	1,177	66.2%
Universities	1,240	1,307	1,314	49.6%
Educational institutions and vocational schools	546	551	566	81.1%
Other areas	1,467	1,507	1,588	60.8%
Total	67,182	67,856	68,791	71.6%

Average age of pharmacists**

Age (in years) of active pharmacists at:	overall	female	male
Community pharmacies	47.8	46.9	50.6
of whom pharmacy managers	53.5	52.5	54.4
of whom licensed employees	45.6	45.5	46.0
Hospital pharmacies	42.2	40.4	46.8
Industry, administration, professional organisations, academia	42.8	41.4	45.1
All areas of activity	46.8	45.8	49.2

* owners (incl. partners), leaseholders and administrators; not employed subsidiary managers
** latest figures from 31.12.2019

Source: ABDA statistics

JOBS AT PHARMACIES

There were around 160,000 people employed in community pharmacies in 2021, around one third of whom are licensed pharmacists. Two thirds work as pharmaceutical technical assistants (PTA) or pharmaceutical commercial employees (PCE).

	2019	2020	2021	Female percentage 2021
Pharmacists	52,876	52,996	53,285	73.7 %
Pre-approbation trainee pharmacists (PhiP)	1,641	1,656	1,692	72.9 %
Pharmacists' assistants, Pharmaceutical engineers	4,975	4,661	4,389	96.7 %
Pharmaceutical technical assistants (incl. trainees)	68,277	68,765	68,323	97.2 %
Pharmaceutical commercial employees (PCE) *	32,819	32,376	32,094	98.1 %
Total jobs	160,588	160,454	159,783	89.3 %

* incl. pharmacy assistants, skilled workers, assistants, pharmaceutical assistants and PCE in training

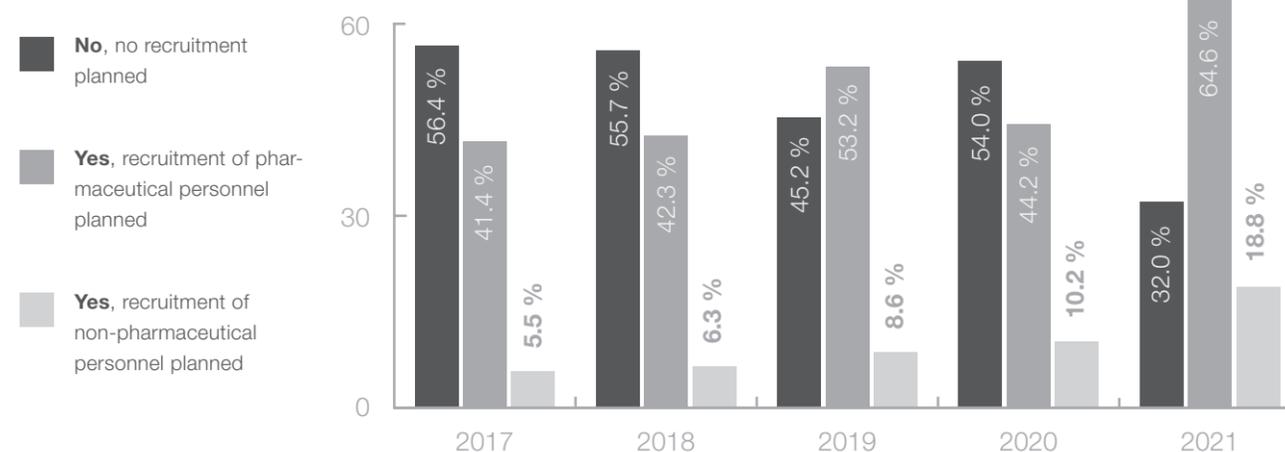
All figures as at year end

Source: ABDA statistics

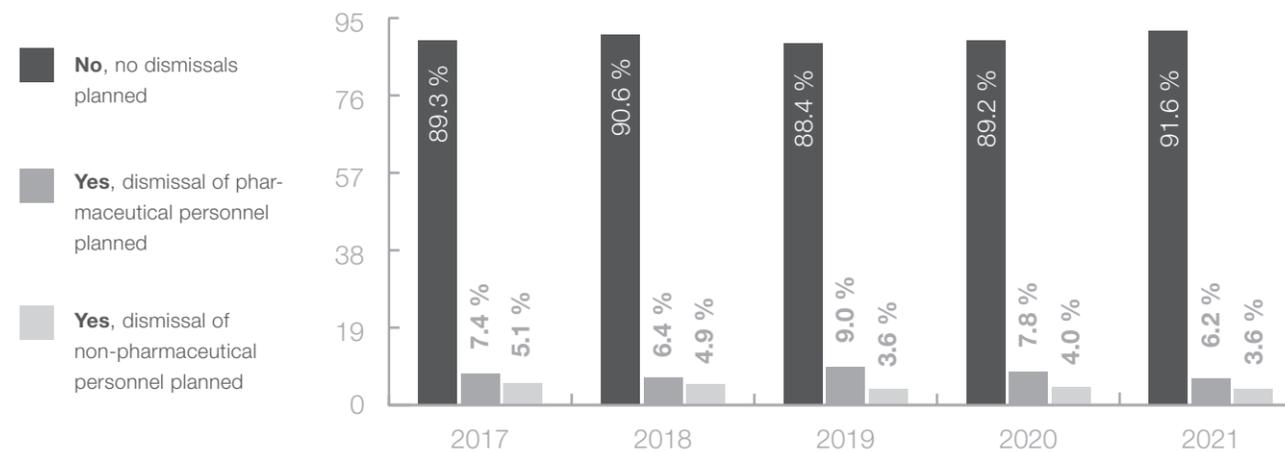
PERSONNEL PLANNING

In addition to ascertainable employee numbers, plans for recruitment and dismissals in pharmacies also play a role in assessing staffing needs. Nearly half of pharmacy owners plan to recruit skilled workers in the next two to three years. Nine out of ten owners do not plan to dismiss any employees, meaning that jobs in pharmacies are very safe overall.

Do pharmacy owners plan to hire new employees in the next two to three years?



Do pharmacy owners plan to dismiss employees in the next two to three years?



Source: Pharmacy climate index 2021 (marpinion GmbH)

APPRENTICESHIPS IN PHARMACIES

Pharmacies provide apprenticeships for more than 7,400 young people who complete their practical training there either as part of a dual training programme to become a PCE, a school-based PTA apprenticeship or in the final stage of their pharmacy studies. Roughly half of all pharmacies are currently training staff.

	2019	2020	2021
Pharmaceutical commercial employees (PCE) in training	3,603	3,504	3,652
Pharmaceutical technical assistants (PTA) in training	2,131	2,119	2,068
Pre-approbation trainee pharmacists (PhiP)	1,641	1,656	1,692
Total number of apprenticeships	7,375	7,279	7,412

Do pharmacy owners currently train employees at their (main) pharmacy?

No , I'm not training anyone at present	49.4 %
Yes , other apprenticeships, e. g. student apprentices or apprentices in other careers	25.8 %
Yes , one or more apprentice PTAs	23.0 %
Yes , one or more apprentice PCEs	20.0 %
Yes , one or more trainee pharmacists (PhiPs)	18.2 %

Source: ABDA statistics, pharmacy climate index 2021 (marpinion GmbH)

PHARMACY STUDENTS AND APPROBATIONS

There is a growing number of pharmacy students and newly licensed pharmacists in Germany. However, demand for pharmacists on the job market, e. g. in industry and hospitals, is also on the rise. Pharmacy study programmes are offered at 22 universities in 14 Federal States, with the programmes split into three stages: basic studies (two years), main studies (two years), and practical training (one year).

Academic year	Students	New students	Approbations	Promotions
2020/2021	16,307	2,836	2,551	356
2019/2020	16,123	2,780	2,304	362
2018/2019	15,986	2,833	2,281	372
2017/2018	15,894	2,775	2,233	374
2016/2017	15,682	2,766	2,202	415
2015/2016	15,548	2,752	2,025	385
2014/2015	15,268	2,748	2,079	407
2013/2014	14,632	2,708	1,947	350
2012/2013	14,183	2,754	1,929	329
2011/2012	13,603	2,853	1,868	338

Source: Federal Statistical Office of Germany (DESTATIS), state authorities

PLACES OF STUDY

Federal State	University	Admissions in winter semester 2020/2021	Admissions in summer semester 2021
Baden-Württemberg	Freiburg	90	0
	Heidelberg	45	0
	Tübingen	140	0
Bavaria	Erlangen-Nuremberg	121	0
	University of Munich	105	75
	Regensburg	129	0
	Würzburg	69	58
Berlin	FU Berlin	75	68
Brandenburg	—	—	—
Bremen	—	—	—
Hamburg	Hamburg	64	0
Hesse	Frankfurt am Main	69	64
	Marburg	140	90
Mecklenburg-Western Pomerania	Greifswald	65	64
Lower Saxony	Braunschweig	88	70
North Rhine-Westphalia	Bonn	78	77
	Düsseldorf	59	59
	Münster	80	70
Rhineland-Palatinate	Mainz	48	48
Saarland	Saarbrücken	136	0
Saxony	Leipzig	48	0
Saxony-Anhalt	Halle-Wittenberg	135	0
Schleswig-Holstein	Kiel	58	58
Thuringia	Jena	75	0
Total		1,917	801

Source: University Admissions Foundation (ZVS)

CONTINUING PROFESSIONAL EDUCATION AND POSTGRADUATE SPECIALISATION

Continuing professional education (CPE) helps to refresh and expand upon existing knowledge. Postgraduate specialisation refers to extra-occupational acquisition of specialised knowledge and skills in a specific field or area of pharmacy. Completing a three-year training programme in one of these areas allows a pharmacist to adopt the title of “specialised pharmacist”. Following a one-year programme in one of these fields, the corresponding designation may be used.

CPE events offered by the regional chambers of pharmacists (LAK) and regional pharmacists' associations (LAV)

	2019	2020	2021
Events	3,351	2,141	2,294
Participants	187,651	185,122	222,891

Postgraduate specialisation completions per year

(by area and field)

	2019	2020	2021
Number of postgraduate specialisation completions	475	364	409

Pharmacists with postgraduate specialisation (end of 2021)

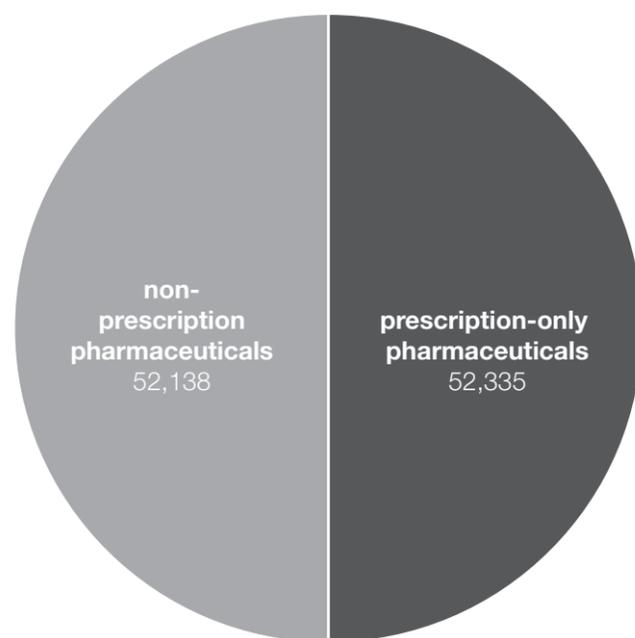
Area	Field
General Pharmacy	Naturopathy and Homeopathy
Clinical Pharmacy	Nutrition counselling
Pharmaceutical Analytics	Geriatric Pharmacy
Pharmaceutical Information	Prevention and Health Promotion
Pharmaceutical technology	Oncological Pharmacy
Public Healthcare	Infectiology
Theoretical and practical training	Medication Management in Hospitals
Toxicology and Oncology	Care Services
Pharmaceutical Analytics and Technology	
Clinical Chemistry	
Specialist pharmacist titles – total	Field designations – total
13,982	6,731

Source: Federal Chamber of Pharmacists (BAK)

PHARMACEUTICALS APPROVED IN GERMANY

More than 100,000 pharmaceuticals are officially approved in Germany. Each package size, potency or dosage form is considered an individual pharmaceutical even if the brand name is the same. About half of all medications are prescription-only. Official approval can be granted at national level in accordance with the German Medicinal Products Act (AMG) or at European level.

Prescription narcotics*	2,506
Pharmaceuticals requiring a special prescription (T prescription)**	16
Other prescription pharmaceuticals	49,813
Pharmacy-only pharmaceuticals	17,342
Unrestricted OTC pharmaceuticals	34,796
Total number of marketable pharmaceuticals	104,473



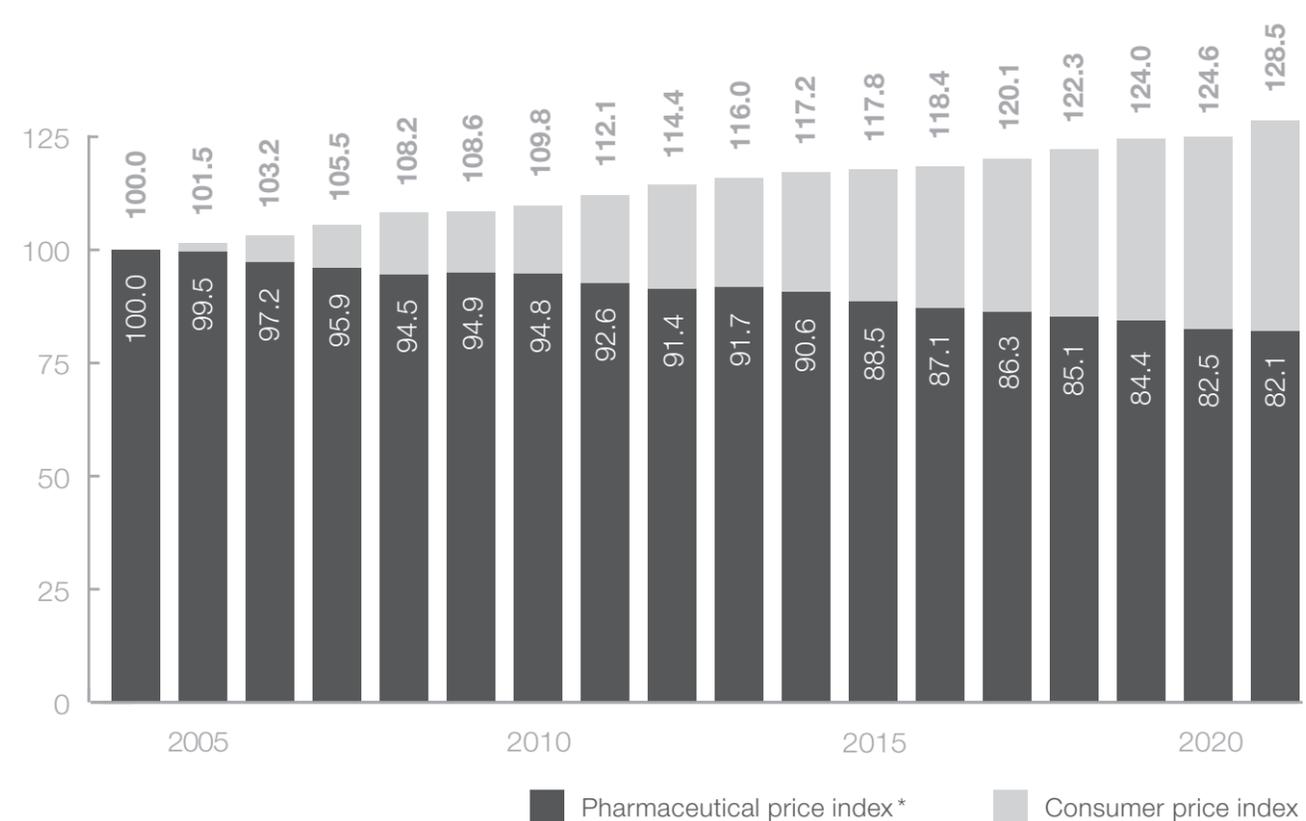
* pharmaceuticals that are subject to the Narcotics Prescription Regulation (BtMVV) due to their effect, e.g. strong painkillers
 ** pharmaceuticals that may only be used in very specific circumstances due to their risk potential, e.g. those containing thalidomide

As of: January 2022

Source: Federal Institute for Drugs and Medical Devices (BfArM)

PHARMACEUTICAL PRICE INDEX

The pharmaceutical price index describes the average price development (incl. VAT) of pharmaceuticals prescribed at the expense of statutory health insurance (SHI) funds. Pharmaceutical prices have been falling for over 15 years, while consumer prices have continued to rise.



* Pharmacy markdowns, manufacturer markdowns, rebate contract savings and co-payments are not factored into this.

Source: AOK Research Institute (WIdO), Federal Statistical Office of Germany (DESTATIS)

PRICING FOR FINISHED DOSAGE FORMS

The sales prices of prescription pharmaceuticals and pharmacy fees are set in line with the legal provisions of the Drug Price Ordinance (AMPreisV). In order to ease the financial burden on health insurance funds, lawmakers have stipulated markdowns along with co-payments from insured individuals.

Example of a prescription-only finished dosage form

Manufacturer sales price (ApU)	50.00 EUR
+ maximum wholesale mark-up (3.15 % on ApU + 0.70 EUR)	2.28 EUR
= Pharmacy purchase price (AEP)	52.28 EUR
+ pharmacy mark-up (3 % on AEP + 8.35 EUR)	9.92 EUR
+ Emergency service mark-up (0.21 EUR)	0.21 EUR
+ Mark-up to fund pharmaceutical services (0.20 EUR)	0.20 EUR
= Net pharmacy retail price (net AVP)	62.61 EUR
+ Value-added tax (19 % on net AVP)	11.90 EUR
= Gross pharmacy retail price (AVP)	74.51 EUR
– statutory co-payment from the insured individual (10 % of gross AVP)	7.45 EUR
– statutory pharmacy markdown (1.77 EUR)	1.77 EUR
– statutory manufacturer markdown* (7 % of ApU)	3.50 EUR
= Effective expenditure of SHI**	61.79 EUR

* The manufacturer markdown for pharmaceuticals not bound to fixed prices is 7 % for patent-protected originals and 16 % for generics. However, the discount for generics bound to fixed prices is 10 %. If the pharmaceutical price is 30 % less than the fixed price, the manufacturer discount no longer applies (§ 130a German Social Code (SGB) V).

** rebate contracts which reduce costs for SHI funds are not taken into account

SGB = German Social Code (Sozialgesetzbuch)

Source: ABDA statistics

PRICING FOR STANDARD FORMULATIONS

The sales prices of standard formulations are set in line with the legal provisions of the Drug Price Ordinance (AMPreisV), similarly to industrially produced prescription drugs. The regulation sets out the mark-ups and discounts in detail. The remuneration rules for standard formulations were adjusted in 2017.

Example for a prescription-only ointment (100 g)

Pharmacy purchase price (AEP) for an active ingredient (1 g powder), base (99 g ointment base) and container (1 dispenser for 100 g)	5.00 EUR
+ fixed mark-up (90 % on AEP)	4.50 EUR
+ formulation mark-up for production (6.00 EUR for preparation of ointments up to 200 g)	6.00 EUR
+ fixed fee	8.35 EUR
= Net pharmacy retail price (net AVP)	23.85 EUR
+ Value-added tax (19 % on net AVP)	4.53 EUR
= Gross Pharmacy retail price (AVP)	28.38 EUR
– statutory co-payment from the insured individual (10 % of gross AVP; minimum of 5 EUR)	5.00 EUR
– statutory pharmacy markdown (1.77 EUR)	1.77 EUR
= Effective expenditure of SHI	21.61 EUR

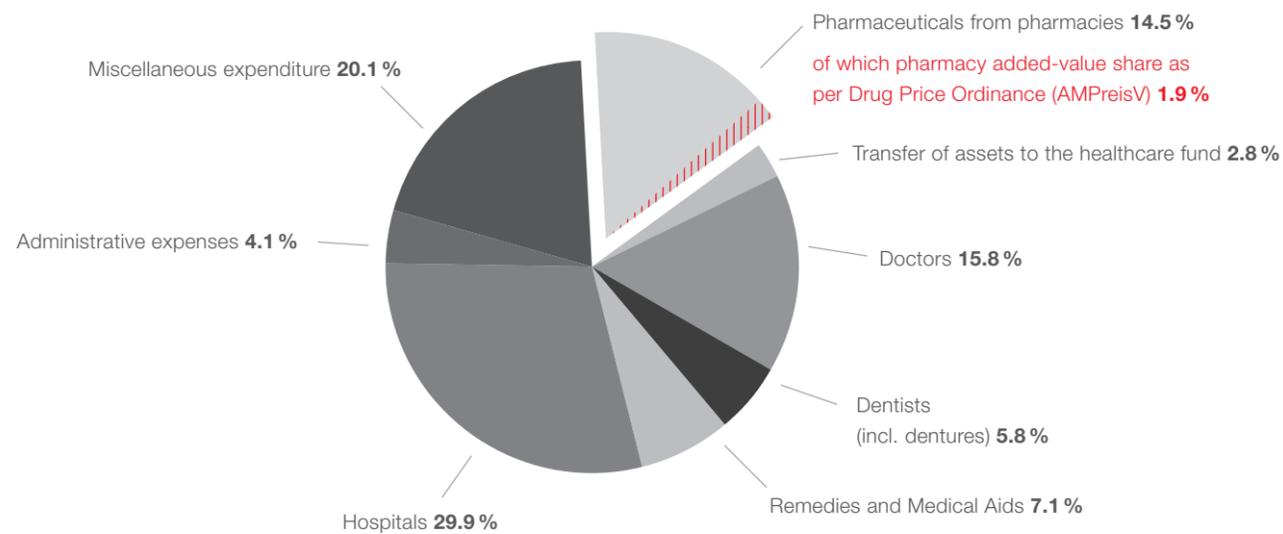
Source: ABDA statistics

BREAKDOWN OF TOTAL SHI EXPENDITURE

Of the over 280 billion euros spent by statutory health insurance (SHI) in 2021, the largest shares went to hospitals and doctors. Pharmaceuticals (incl. pharmacies) came in third place with 14.5%. At only 1.9 percentage points, the costs of pharmacies and their services in the system continue to fall, accounting for less than half of SHI administrative expenditure (4.1%). It must be noted that the total expenditure for 2021 also includes an 8 billion euro asset transfer from the health insurance funds to the healthcare fund.

	Total SHI expenditure (billion euros)	as a %	Transfer of assets to the healthcare fund	Doctors	Dentists (incl. dentures)	Remedies and Medical Aids	Hospitals	Administrative expenses	Miscellaneous expenditure	Pharmaceuticals*	of which pharmacy added-value share as per Drug Price Ordinance (AMPreisV)
2021**	284.33		2.8	15.8	5.8	7.1	29.9	4.1	20.1	14.5	1.9
2020	262.90		—	16.7	5.7	6.9	31.0	4.5	21.0	14.3	2.1
2019	252.25		—	16.3	6.0	7.0	31.6	4.4	20.8	14.0	2.1
2018	239.27		—	16.5	6.1	6.7	31.9	4.8	19.7	14.4	2.2
2015	213.67		—	16.1	6.3	6.4	32.5	4.9	19.0	14.6	2.3
2010	175.99		—	15.4	6.5	6.0	33.0	5.4	18.1	15.6	2.5
2005	143.81		—	15.2	6.9	6.2	33.7	5.7	16.3	15.9	2.8

SHI total expenditure 2021 **: 284.33 billion EUR



* from community pharmacies (excl. foreign mail-order trade, hospital pharmacies and others)

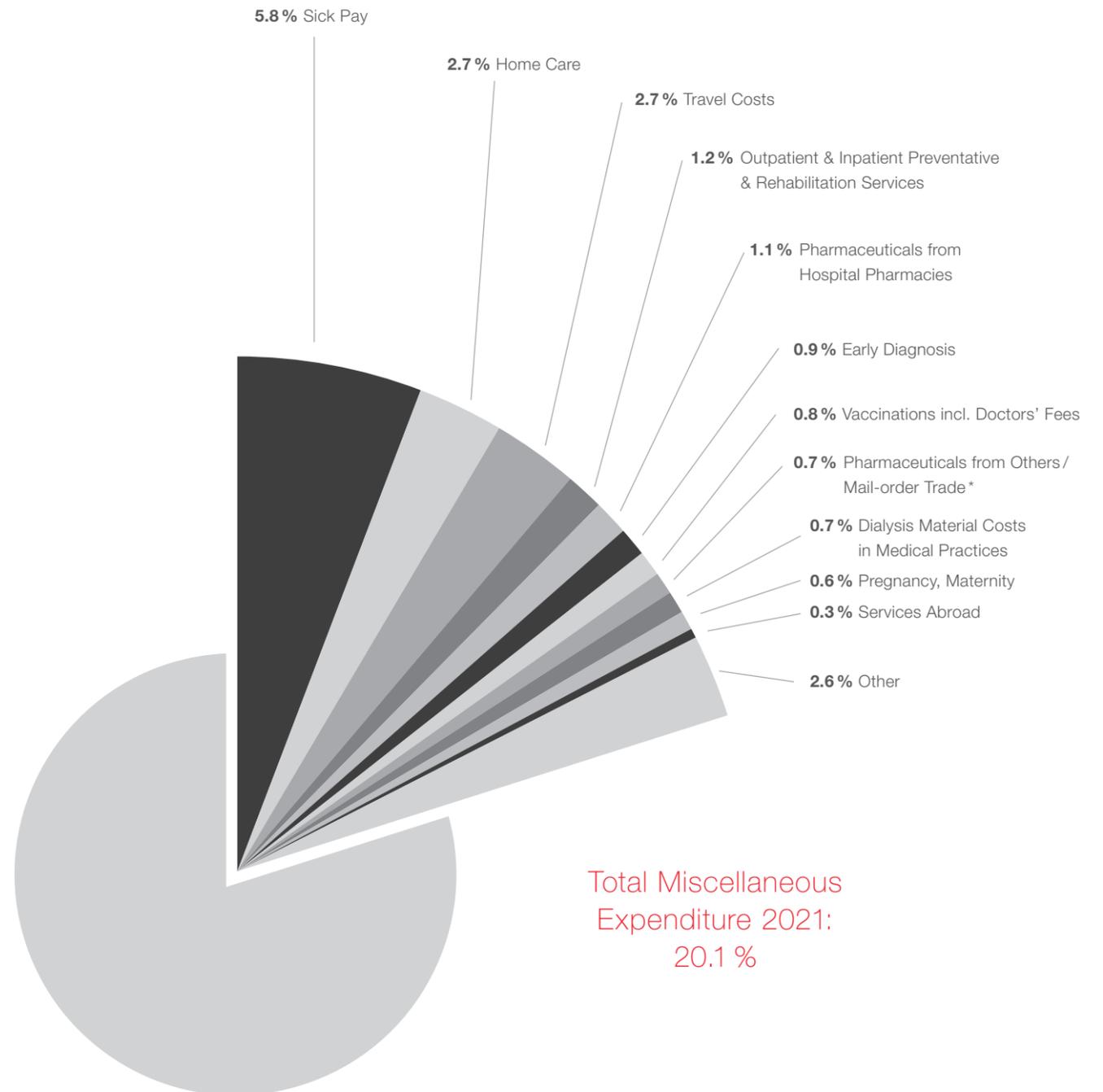
** preliminary

AMPreisV = Drug Price Ordinance

Source: Federal Ministry of Health (BMG), ABDA statistics

MISCELLANEOUS HEALTH INSURANCE FUND EXPENDITURE

Miscellaneous SHI expenditure includes sick pay, home care and travel costs. “Pharmaceuticals from Others/ Mail-order Trade” refers to foreign mail-order pharmacies or health authorities. Miscellaneous expenditure also includes “Vaccinations incl. Doctors’ Fees”.



* 0.7% is equivalent to 2.04 billion EUR, with 364 million EUR attributable to foreign mail-order trade (see chapter “Mail-order trade”).

Pharmaceuticals from hospital pharmacies were classified as miscellaneous expenditure until 2018, but they are now shown separately.

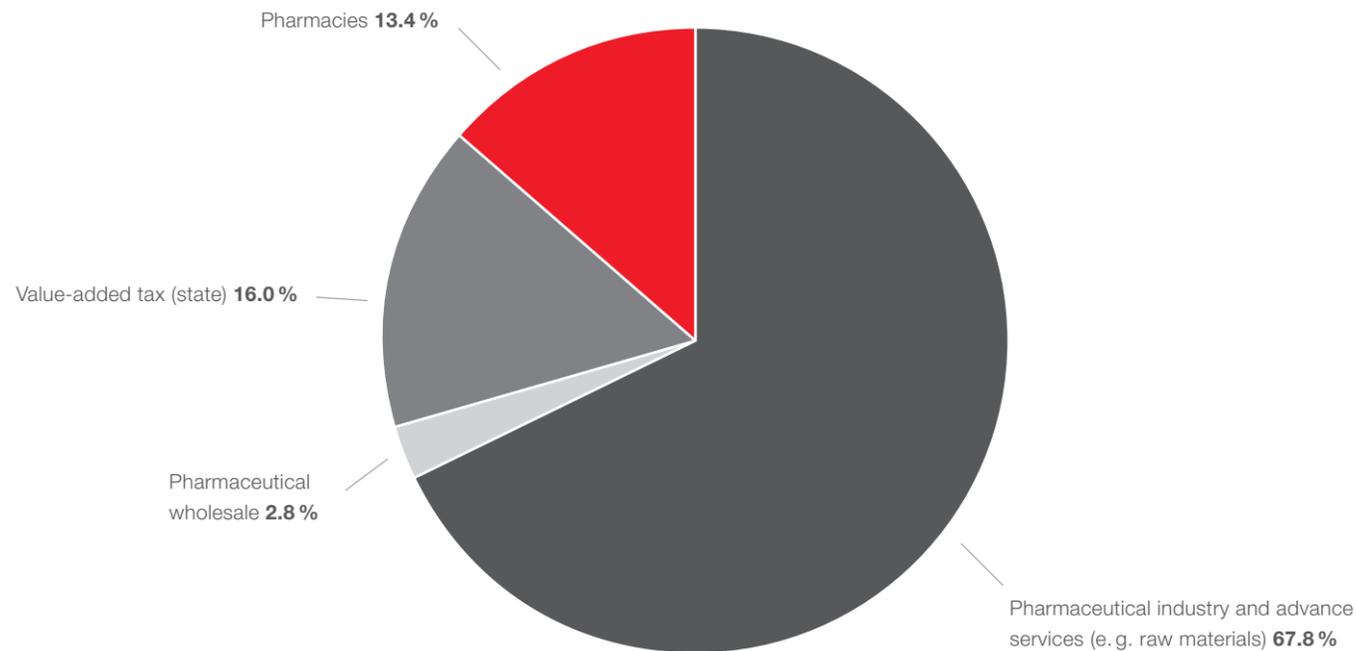
Source: Federal Ministry of Health (BMG), ABDA statistics

SHI EXPENDITURE FOR PHARMACEUTICALS

Around two thirds of statutory health insurance (SHI) pharmaceuticals expenditure is attributable to the pharmaceutical industry. In 2021, the expenditure for the 19 % VAT on medicinal products was still higher than the expenditure for the services rendered by pharmacies.

	2019		2020		2021*	
	in billion EUR		in billion EUR		in billion EUR	
Pharmaceutical industry and advance services (e. g. raw materials)	23.28	65.7 %	25.32	67.5 %	27.93	67.8 %
Pharmaceutical wholesale	1.13	3.2 %	1.13	3.1 %	1.15	2.8 %
Value-added tax (state)	5.65	16.0 %	5.59	14.9 %	6.57	16.0 %
Pharmacies	5.35	15.1 %	5.48	14.6 %	5.52	13.4 %
Total SHI expenditure on pharmaceuticals**	35.41	100.0 %	37.52	100.0 %	41.17	100.0 %

SHI expenditure on pharmaceuticals in 2021: 41.17 billion EUR



* preliminary
 ** Finished dosage forms, formulations and dressing materials from community pharmacies (excl. foreign mail-order trade, hospital pharmacies and others)

Source: Federal Ministry of Health (BMG), ABDA statistics

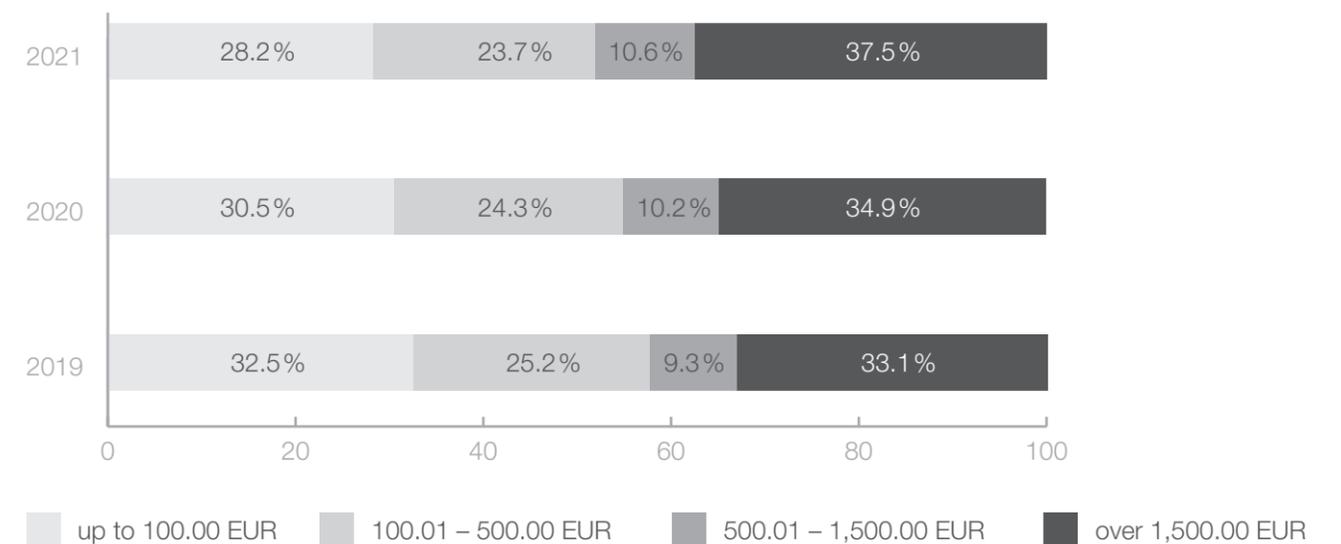
PHARMACEUTICALS BY PRICE CLASSES

The pharmacy retail price (AVP) of every prescription drug is determined by law through the Drug Price Ordinance (AMPreisV) based on the manufacturer sales price (ApU). For nine out of ten medications, this sum is no more than 100 euros. Despite lower package volumes, higher-priced, innovative pharmaceuticals make up a growing share of total revenue.

Sales share of SHI prescription-only, finished dosage forms



Revenue share of SHI prescription-only, finished dosage forms

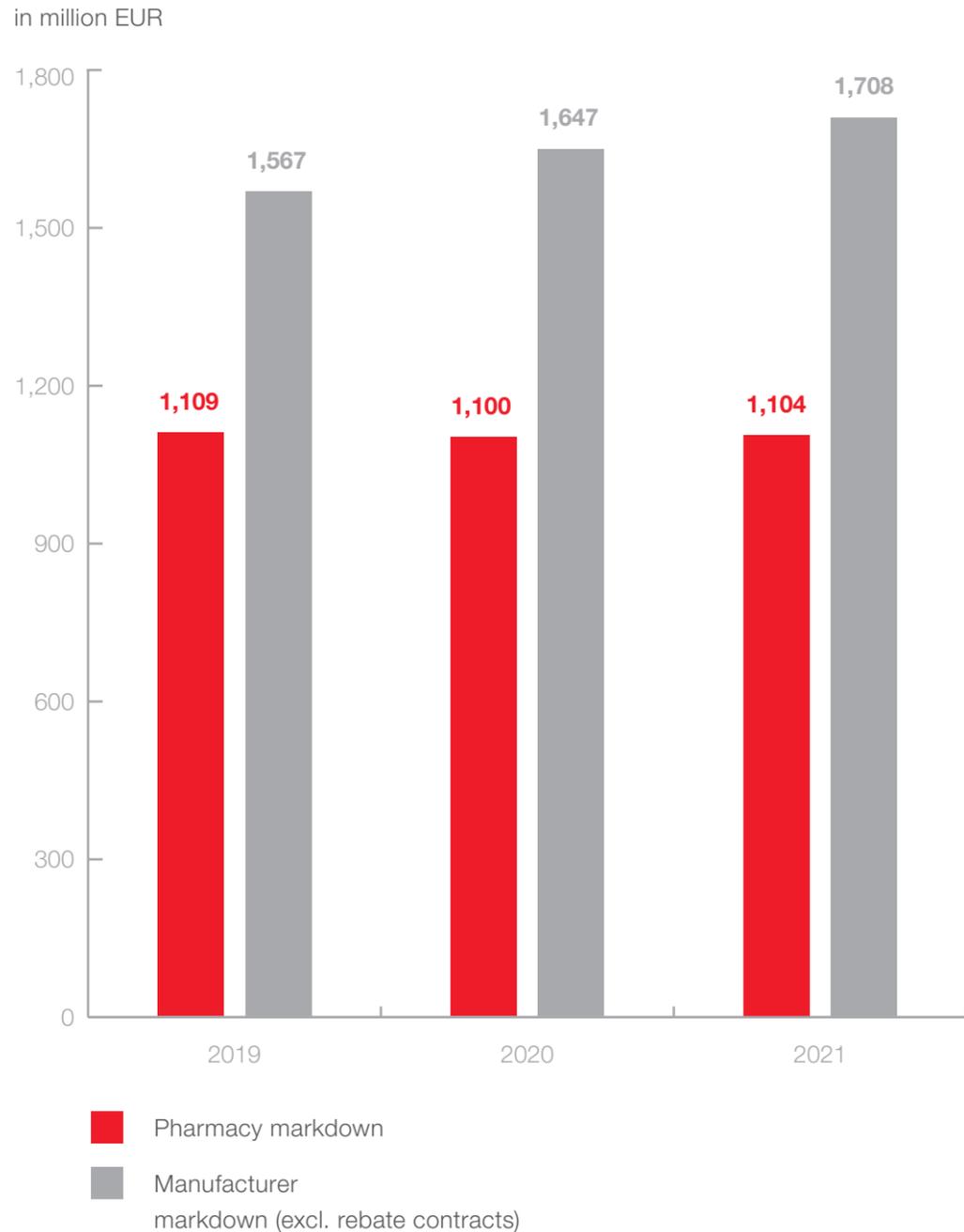


Price categories refer to pharmacy retail prices

Source: German Institute for Drug Use Evaluation (DAPI)

PHARMACY AND MANUFACTURER MARKDOWNS

Over the years, lawmakers have introduced various instruments to limit statutory health insurance (SHI) expenditure on medicinal products. Pharmacies, like drug manufacturers, must grant SHI funds markdowns on the dispensing of prescription drugs. The pharmacy markdown is currently 1.77 euros (incl. VAT). This amount must be reimbursed to the health insurance fund from the pharmacy fees for each package dispensed at the expense of the SHI. The discount adds up to more than one billion euros.



Source: German Pharmacists' Association (DAV)

REBATE CONTRACTS

Since 2007, health insurance funds have been able to conclude rebate contracts with pharmaceutical manufacturers to reduce the costs of dispensing medications. There are now almost 36,000 fund-specific rebate contracts that stipulate which insured individuals can receive which preparation from which manufacturer. Taking the growing number of these contracts into account in patient care represents a high administrative burden for pharmacies, but savings in the billions for health insurance funds.

5.1 billion EUR of SHI savings from rebate contracts in 2021

375 million generic drug packages with rebate contracts in 2020*

42 million original drug packages with rebate contracts in 2020*

36,000 rebate contracts at end of 2021

20,000 rebate pharmaceuticals (pharmaceutical registration numbers) at end of 2021

225 pharmaceutical companies involved as at end of 2021

22 % of rebate prescription medications with exemptions from or reductions in co-payments at the end of 2021

Rebate pharmaceuticals: Comparison of contracts and SHI savings

	2019	2020	2021
Number of rebate contracts at year end	31,300	32,700	35,900
SHI savings over the full year	5.0 billion EUR	5.0 billion EUR	5.1 billion EUR

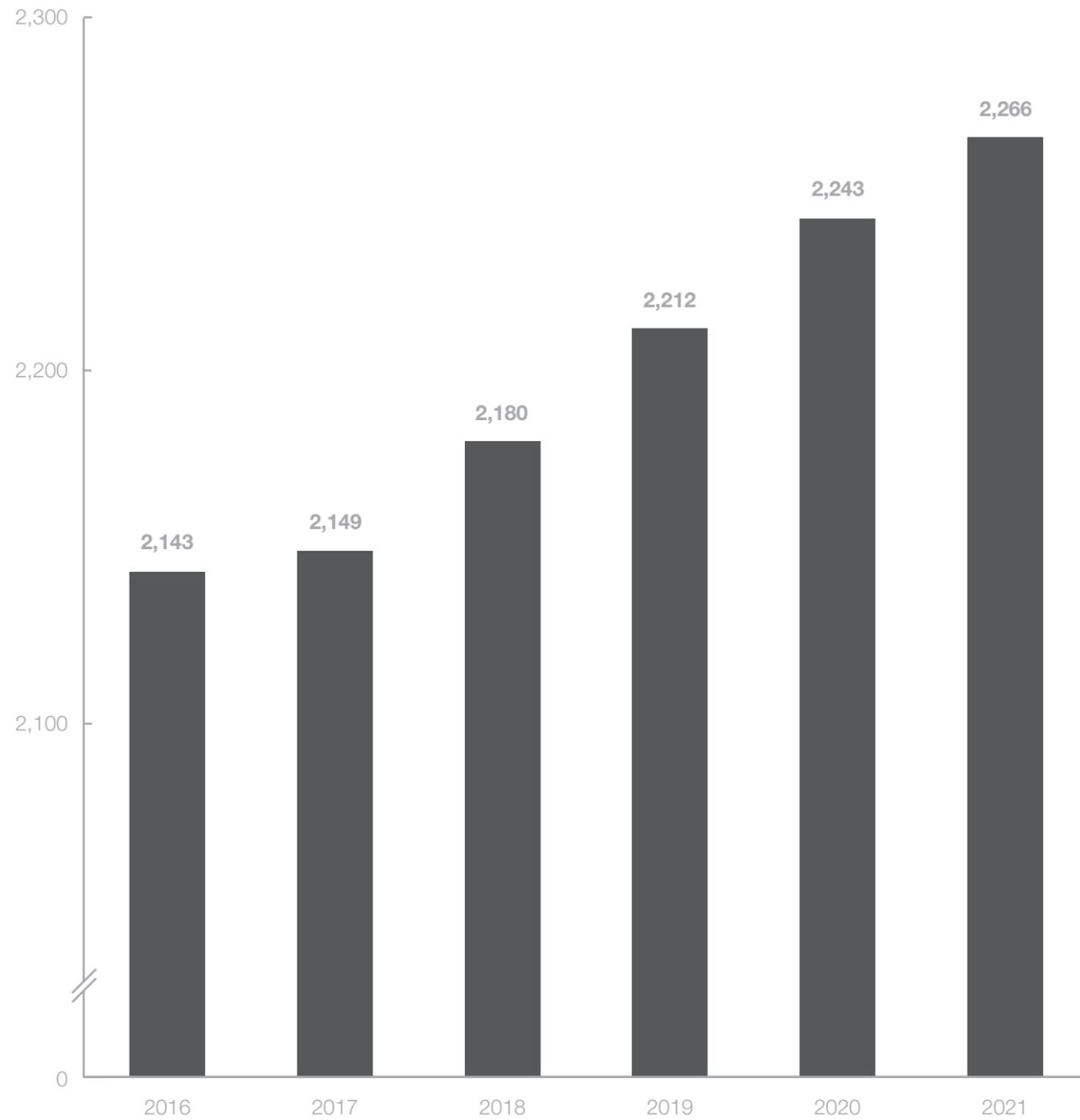
* No figures for 2021 were available by the editorial deadline.

Source: ABDATA, Pro Generika e.V., Federal Ministry of Health (BMG), IQVIA Commercial GmbH & Co. OHG

PATIENT CO-PAYMENTS

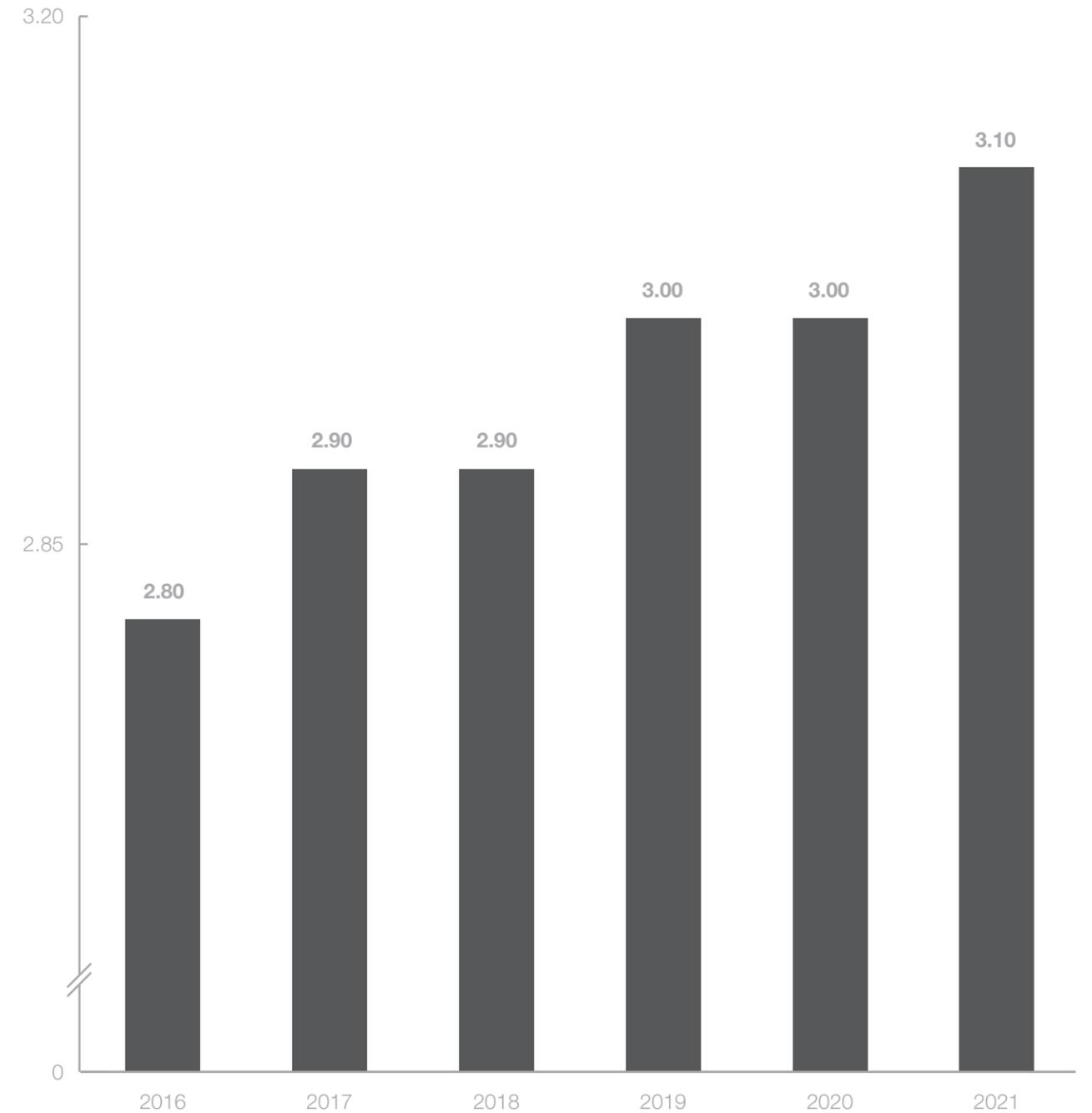
SHI-insured patients have to make co-payments to their health insurance funds for specific services. For prescribed medications, this is 10% of the price of the medication, but at least 5 and no more than 10 euros. The average co-payment amounts to 3.10 euros as some medications, and some patients, are exempt from co-payment. The co-payments that pharmacies have to charge result in savings for health insurance funds – currently two billion euros per year, and rising.

Patient co-payments for pharmaceuticals in million EUR



Source: German Pharmacists' Association (DAV)

Average co-payment per package in EUR



Source: German Pharmacists' Association (DAV)

CO-PAYMENT EXEMPTIONS

A hardship provision in §62 SGB V stipulates that people with statutory health insurance have to pay a maximum of two percent of their gross annual income for co-payments. For chronically ill people, this limit is set at 1 %. This means that, of the approximately 73 million people with statutory health insurance in Germany, about one in every thirteen is exempt from further co-payments. For several years, the number of people with exemptions has been on the decline.

Co-payment exemptions	2005	2010	2015	2018	2019	2020
Chronically ill patients (in millions)	6.4	6.8	6.2	5.8	5.5	5.2
Other patients (in millions)	0.6	0.4	0.3	0.3	0.3	0.2
Total patients exempt from co-payment (in millions)	7.0	7.2	6.5	+6.1	5.8	5.4
Proportion of SHI-insured individuals exempt from co-payment	9.9%	10.3%	9.2%	8.4%	7.9%	7.4%

SGB = German Social Code (Sozialgesetzbuch)

Source: Federal Ministry of Health (BMG)

GUIDELINES AND WORKING AIDS

The guidelines of the Federal Chamber of Pharmacists, including their comments and working aids, are recommendations which address typical situations in pharmacies to help ensure high-quality service. They take into account the applicable laws and regulations and are based on the state of the art in science and technology, but do not release individuals from their responsibilities as healthcare professionals. Materials are available for the following pharmacy-related topics and activities:

1. Pharmaceutical Information
2. Pharmaceutical risks
3. Asthma
4. Blood pressure measurement
5. Blood tests
6. COVID-19 vaccination
7. Dosage forms
8. Diabetes
9. Nutrition counselling
10. Influenza vaccination (pilot project)
11. Supply to care homes
12. Hygiene management
13. Supply to hospitals
14. Manual repackaging
15. Medication analysis
16. Opioid substitution
17. Production of parenterals
18. Inspection of source materials / primary packaging
19. Inspection of finished dosage forms
20. Prescription delivery
21. Formulations / batch preparations
22. Self-medication

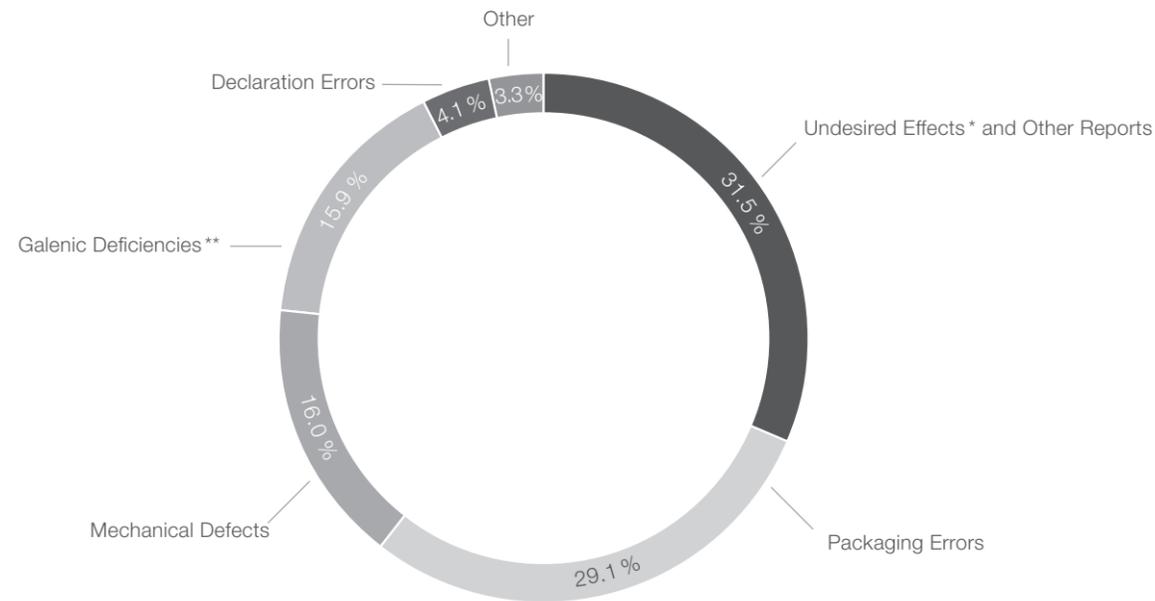
Materials available at: www.abda.de/fuer-apotheker/qualitaetssicherung/leitlinien/leitlinien-und-arbeitshilfen

Source: Federal Chamber of Pharmacists (BAK)

AMK: REPORTING OF PHARMACEUTICAL RISKS

Pharmacists test the quality of pharmaceuticals and report quality issues to the Drug Commission of German Pharmacists (AMK). It records and evaluates reported risks of pharmaceuticals and, if necessary, issues warnings, which are an important instrument of consumer protection.

Reasons for reports to the Drug Commission of German Pharmacists (AMK)



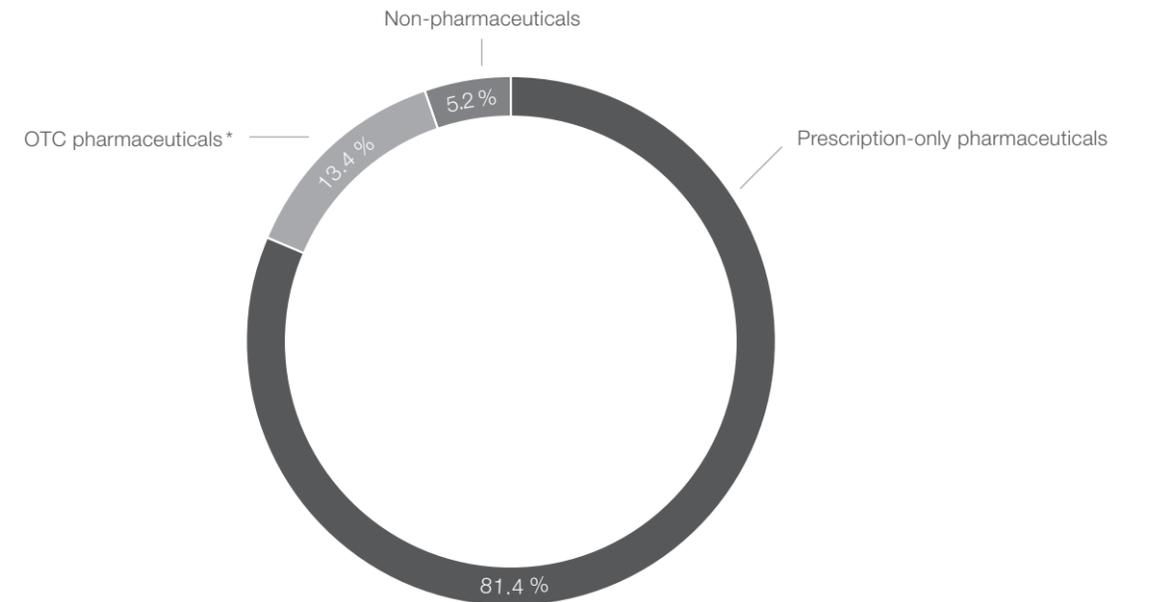
	2019	2020	2021		
	absolute	absolute	absolute	percent- age	Change from previous year
Undesired Effects* and Other Reports	3,110	2,371	2,548	31.5%	7.5%
Packaging Errors	3,046	2,652	2,354	29.1%	-11.2%
Mechanical Defects	1,335	1,512	1,295	16.0%	-14.4%
Galenic Deficiencies**	2,141	1,406	1,284	15.9%	-8.7%
Declaration Errors	748	499	333	4.1%	-33.3%
Other	402	267	268	3.3%	0.4%
Total	10,782	8,707	8,082	100.0%	-7.2%

* Reporting of suspicious cases regarding pharmaceuticals and other product groups

** Manufacturing/technological defects

Source: Drug Commission of German Pharmacists (AMK)

Risks by pharmaceutical group



	2021	
	absolute figure	percent- age
Prescription-only pharmaceuticals	6,579	81.4%
OTC pharmaceuticals*	1,084	13.4%
Non-pharmaceuticals	419	5.2%
Total	8,082	100.0%

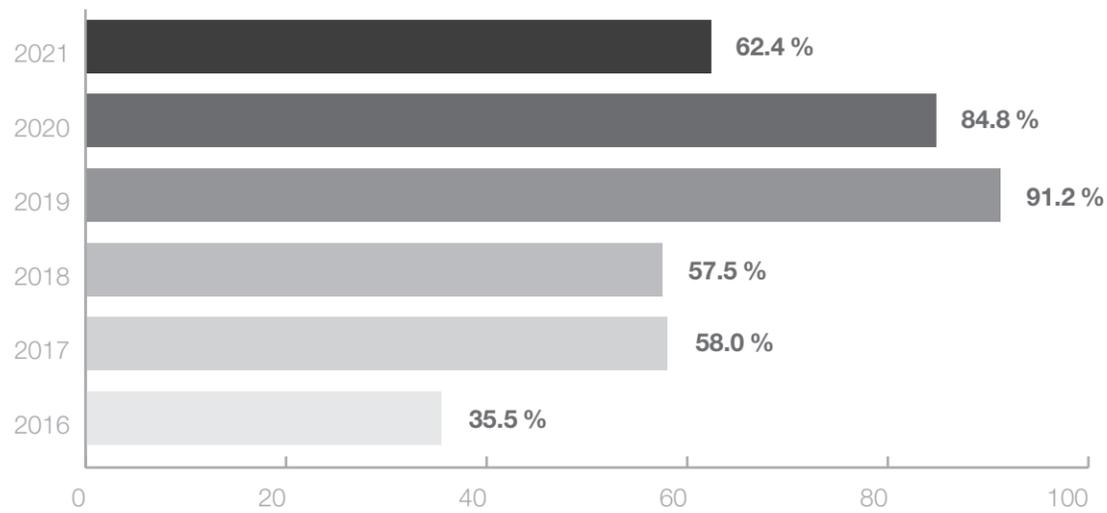
* OTC = over-the-counter = non-prescription pharmaceuticals

Source: Drug Commission of German Pharmacists (AMK)

MANAGING SUPPLY SHORTAGES

Supply shortages present a risk to the high-quality supply of medications, affect various active ingredients and have been among the biggest nuisances to the daily operation of pharmacies in recent years. The majority of pharmacy owners report that more than 10 % of their employees' working time is spent procuring substitute products. In a representative survey conducted in mid-2020, pharmacy owners reported that they have saved 40.6 % (mean) of team working time on managing supply shortages since the SARS-CoV-2 Drug Supply Ordinance facilitated replacement with substitute medicines which are available in stock.

Percentage of pharmacy owners who consider supply shortages to be one of the biggest nuisances in their daily work.



Percentage of pharmacy staff working time dedicated to managing supply shortages

Pharmacy owners 2019

Less than 1 %	1.2 %
1 % to 5 %	11.2 %
6 % to 10 %	25.4 %
11 % to 15 %	24.0 %
16 % to 20 %	20.4 %
More than 20 %	17.8 %

Source: Pharmacy climate index 2021 (marpinion GmbH)

SUPPLY SHORTAGES IN EUROPE

Pharmaceutical supply shortages are an everyday problem for pharmacies all over Europe, not just in Germany. They affect certain countries to varying degrees, but there are similarities in terms of global supply chains and international dependencies. In spite of these issues, pharmacies try to serve their patients as well as possible.

Survey of 27 European pharmacists' associations in 2021

5.1 hours

Across Europe, pharmacy staff spend an average of 5.1 hours per week managing supply shortages.

85 %

Cardiovascular drugs were most frequently affected by supply shortages (85 %).

52 %

At the time of the survey, 52 % of the pharmacists' associations reported that more than 200 medicines were affected by supply shortages in their countries.

74 %

Pharmacists mostly receive the relevant information on supply shortages from pharmaceutical authorities (74 %), wholesalers (67 %) and manufacturers (52 %).

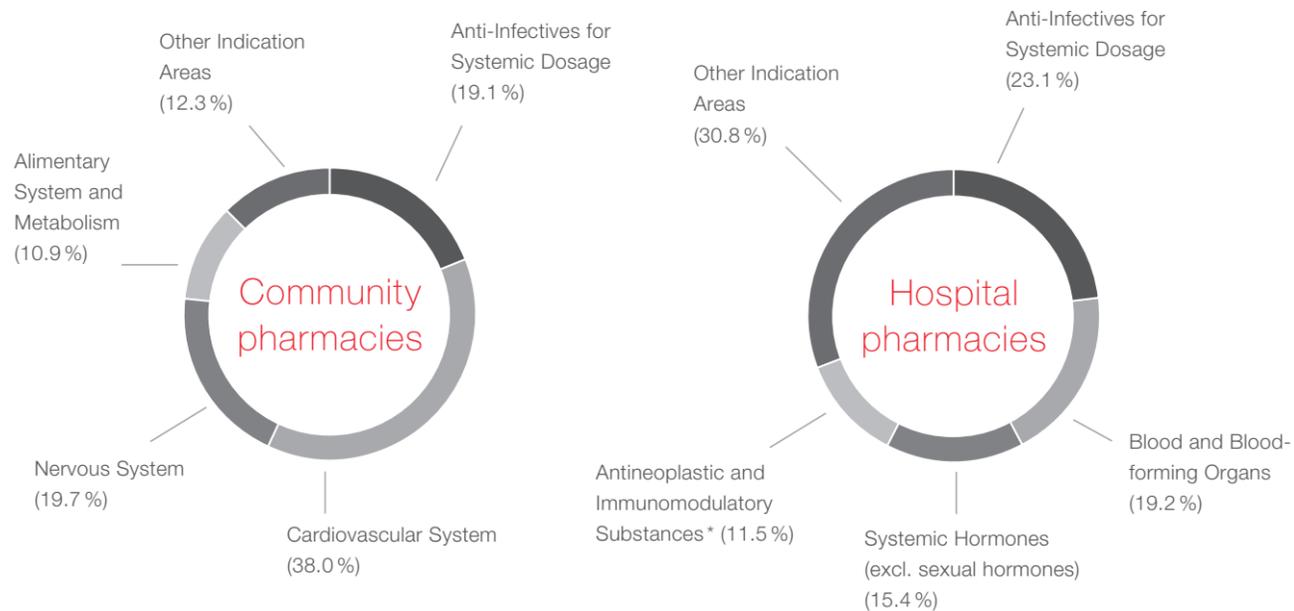
Source: Pharmaceutical Group of the European Union (PGEU)

CONSEQUENCES OF SUPPLY SHORTAGES

Surveys have found that supply shortages have not only become one of the main nuisances in the everyday operation of pharmacies: despite the best efforts of local pharmacies, they also lead in many cases to a deterioration in the quality of drug therapy provided to patients, as unavailable preparations cannot be replaced by equivalent products. This is confirmed by a reference pharmacy survey conducted by the Drug Commission of German Pharmacists (AMK) on the extent and effects of shortages.

In the last three months, how often have pharmaceutical supply shortages occurred in your pharmacy which, in your opinion, had or could have had health consequences for patients?

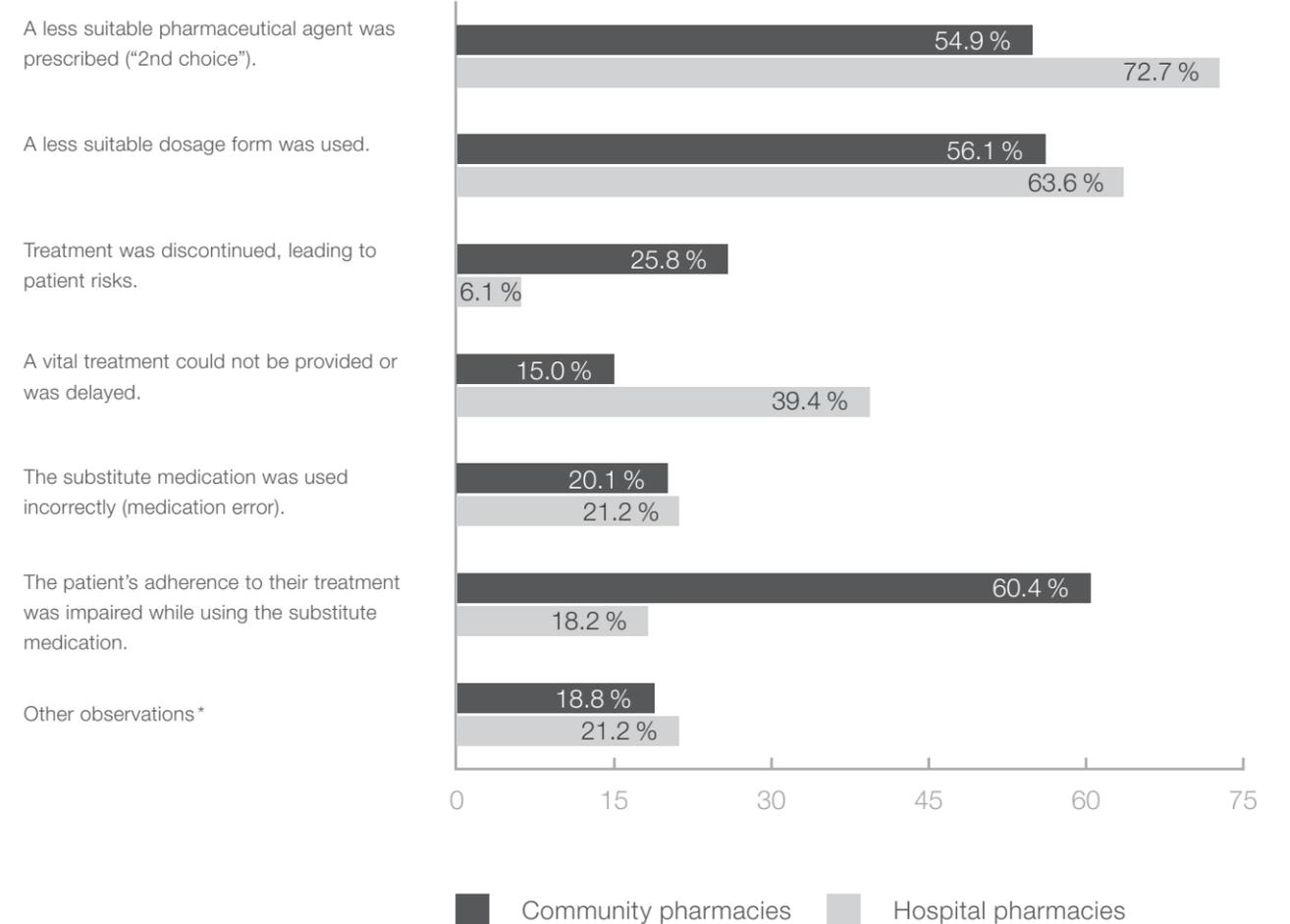
	Community pharmacies	Hospital pharmacies
never	11.4%	19.4%
fewer than 5 times	27.6%	25.0%
5 to 10 times	28.2%	33.4%
11 to 15 times	10.4%	2.8%
more than 15 times	22.4%	19.4%
	100%	100%



* For use in cancer treatment.

Source: Drug Commission of German Pharmacists (AMK) 2017

What observation(s) have you made in your pharmacy in the last three months when delivery and supply shortages occurred? (multiple answers are possible)



* increased time expenditure and consultation effort, increased uncertainty of patients, etc.

Source: Drug Commission of German Pharmacists (AMK) 2017

QUALITY ASSURANCE OF FORMULATIONS

The Central Laboratory of German Pharmacists (ZL) in Eschborn contributes to the quality assurance of formulations with its ring trials. All pharmacies can participate by preparing formulations specified by the ZL, sending them in and having them checked for the identity, content and distribution of the active ingredient, as well as other test parameters such as pH value, particle size, density, etc. More than a third of pharmacies voluntarily have their formulations tested at least once a year.

Ring trials by the Central Laboratory of German Pharmacists (ZL)

Year	Number of participants (formulations tested)	Number of pharmacies*	Participation rate (relative to total number of pharmacies)
2021	8,122	6,316	33.5
2020	8,709	6,706	35.1
2019	8,899	6,862	35.3
2018	8,945	6,684	33.8
2017	8,600	6,437	32.0
2016	7,733	6,019	29.5
2015	7,674	6,086	29.5
2014	8,079	5,706	27.4
2013	6,578	4,955	23.5
2012	5,877	4,191	19.6
2011	4,845	3,490	16.1

* community pharmacies and hospital pharmacies (participant count includes multiple participations of individual pharmacies)

Source: Central Laboratory of German Pharmacists (ZL)

SECURPHARM

The European Anti-Counterfeiting Directive came into force in 2019. In Germany, this protective mechanism against counterfeit pharmaceuticals is known as securPharm. While pharmaceutical companies upload each individual package of prescription drugs to a manufacturer database, pharmacies book each package from a corresponding pharmacy database when dispensing it to the patient. Since every package comes with tamper protection and a unique serial number, a second checkout would trigger a suspected counterfeit alarm, which would then lead to a thorough investigation. In this respect, securPharm makes medications from German pharmacies even safer than before.

securPharm system and usage in numbers

Stakeholders	2021
Pharmaceutical companies	458
Pharmaceutical wholesalers	645
Community pharmacies	18,461
Hospital pharmacies	345

	 Transactions per week	 Products that must be serialised	 Uploaded packaging information
2021	39 million	62,156	2.9 billion
2020	34 million	62,465	2.1 billion
2019	20 million	62,404	1.05 billion

Source: securPharm e.V., IFA GmbH

THE CHALLENGE OF POLYMEDICATION

Polymedication (AKA “multimedication”) is when patients take several medications – at least 3, or 5, depending on which definition is being applied – in parallel over the long term. Around a quarter of the German population permanently takes three or more medications. Various initiatives for medication management exist to counter the risks of polymedication, such as ARMIN (Medication Initiative Saxony-Thuringia) and PRIMA (Primary System Integration of Medication Plans with Acceptance Examination).

Long-term consumption of multiple medications

55 % of people over 70 permanently take three or more medications.

	none	one to two	three	four	five or more	three or more (in total)
2021 total	46 %	29 %	9 %	6 %	10 %	25 %
Detailed results 2021						
Men	51 %	24 %	8 %	6 %	11 %	25 %
Women	41 %	35 %	9 %	6 %	9 %	24 %
18–29 year-olds	66 %	30 %	2 %	1 %	1 %	4 %
30–49 year-olds	59 %	31 %	5 %	2 %	3 %	10 %
50–69 year-olds	37 %	31 %	12 %	8 %	12 %	32 %
70+	22 %	23 %	16 %	14 %	25 %	55 %

Source: Forsa Gesellschaft für Sozialforschung und statistische Analyse mbH (data collected in 2021)

Share of prescription pharmaceuticals

74 % of medicines taken permanently (three or more) are prescription-only.

	alle	more than half	half	less than half	none*
2021 total	74 %	20 %	3 %	2 %	—
Detailed results 2021					
Men	77 %	19 %	2 %	1 %	—
Women	71 %	21 %	4 %	3 %	1 %
18–29 year-olds	63 %	23 %	6 %	6 %	2 %
50–69 year-olds	78 %	18 %	2 %	1 %	—
70+	75 %	21 %	2 %	2 %	—

Polymedication due to multiple illnesses

Four out of five patients receive treatment for two or more illnesses.

	one illness	two illnesses	three illnesses	four or more illnesses*
2021 total	19 %	36 %	30 %	15 %
Detailed results 2021				
Men	20 %	36 %	29 %	15 %
Women	17 %	36 %	31 %	15 %
18–29 year-olds	32 %	37 %	19 %	10 %
50–69 year-olds	18 %	36 %	30 %	15 %
70+	15 %	35 %	33 %	16 %

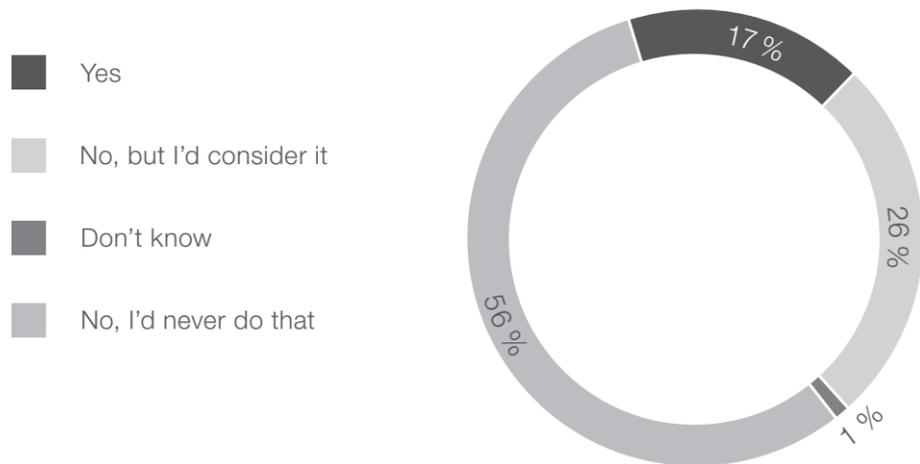
* per cent missing to 100 per cent = “don't know”

Source: Forsa Gesellschaft für Sozialforschung und statistische Analyse mbH (data collected in 2021)

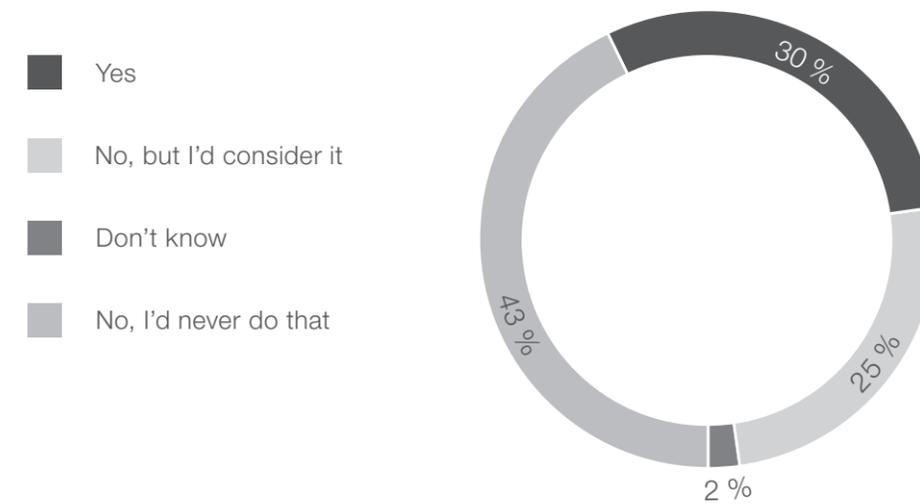
THE RISK OF PRESCRIPTION DRUG ABUSE

Around 4 to 5 per cent of medications prescribed in Germany are associated with potential for abuse or dependency, with an estimated 1.4 to 1.5 million people affected by these issues. Dependencies are most common with sleeping aids and sedatives. It is essential to differentiate between misuse and dependency for substances that can cause physical dependency. For substances that do not cause physical dependency, only misuse is possible. Of the entire range of products, 10 to 12 percent of the packages dispensed for self-medication contain active substances with potential for abuse.

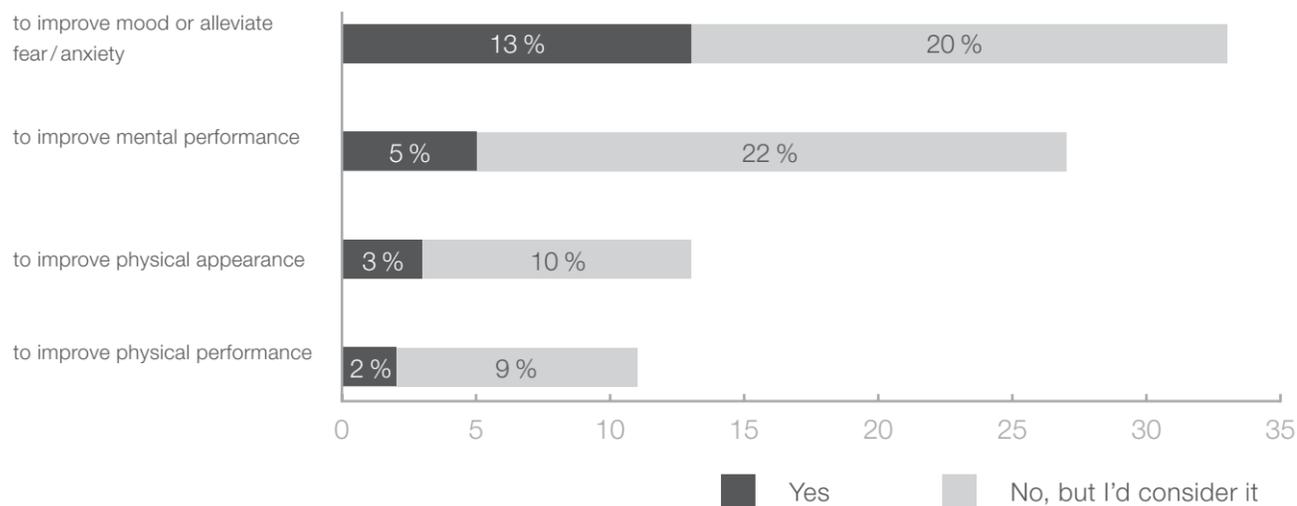
Experience of consumption of prescription-only medicines without medical necessity*



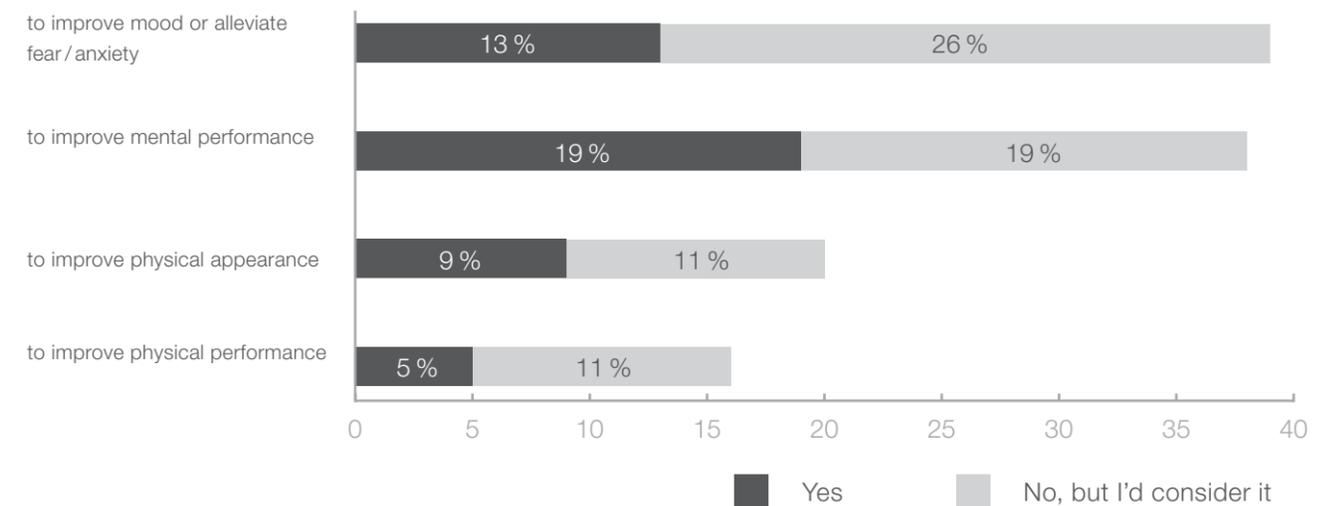
Experience of consumption of **non**-prescription drugs without medical necessity*



Willingness to consume prescription-only medicines without medical necessity*



Willingness to consume **non**-prescription drugs without medical necessity*



* Forsa survey of 5,008 Germans aged 16 to 70 on behalf of ABDA. The data was collected between 15 December 2017 and 5 January 2018.

Source: Federal Chamber of Pharmacists, Deutsche Hauptstelle für Suchtfragen (DHS), Forsa Gesellschaft für Sozialforschung und statistische Analyse mbH

* Forsa survey of 5,008 Germans aged 16 to 70 on behalf of ABDA. The data was collected between 15 December 2017 and 5 January 2018.

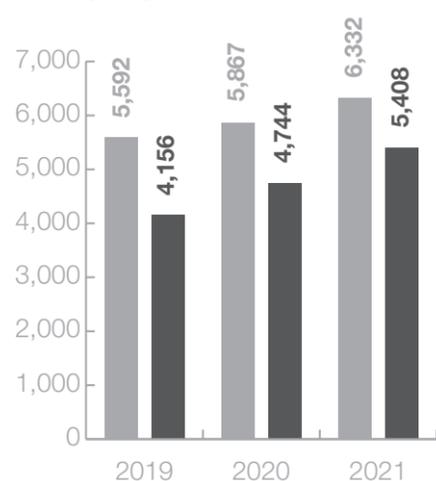
Source: Federal Chamber of Pharmacists, Deutsche Hauptstelle für Suchtfragen (DHS), Forsa Gesellschaft für Sozialforschung und statistische Analyse mbH

PHARMACEUTICALS FOR SERIOUS ILLNESSES

Among the innovative finished dosage forms, oncological medications (to treat cancer) and immunosuppressants (to combat the body's rejection reactions and treat inflammatory diseases) have played an important role in the recent past. The costs reflect the respective therapeutic benefits. In addition to finished dosage forms, individually produced special formulations (cytostatics) are also used in oncological therapy. There are also parenteral solutions for intravenous administration e. g. of monoclonal antibodies. The production of these special formulations is subject to special technical requirements, which are fulfilled by about 300 pharmacies nationwide with special cleanroom laboratories in accordance with § 35a of the Ordinance on the Operation of Pharmacies.

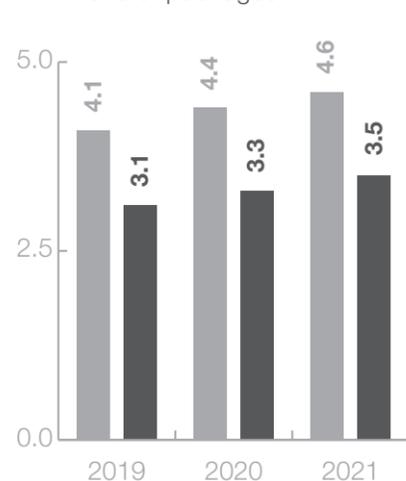
Revenue

in million EUR



Sales volume

in millions of packages



■ Immunosuppressants ■ Oncological medications

Finished dosage forms dispensed in community pharmacies at the expense of SHI.

Cytostatics

	2019		2020		2021	
	Prescriptions (million)	Revenue (million EUR)	Prescriptions (million)	Revenue (million EUR)	Prescriptions (million)	Revenue (million EUR)
Cytostatic preparations	2.1	948	2.1	964	2.1	929
Parenteral solutions	1.6	3,492	1.7	3,952	1.7	4,246
including with monoclonal antibodies	1.1	3,294	1.2	3,759	1.3	4,053

Special formulations dispensed in community pharmacies at the expense of SHI.

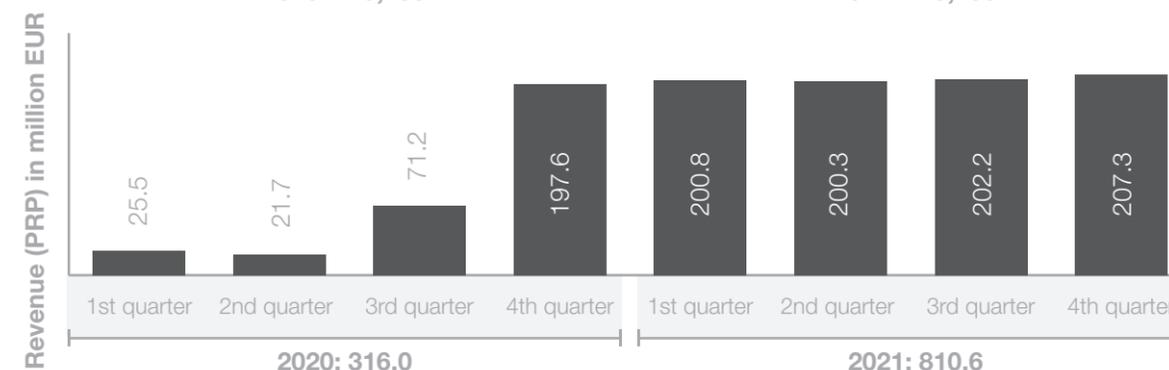
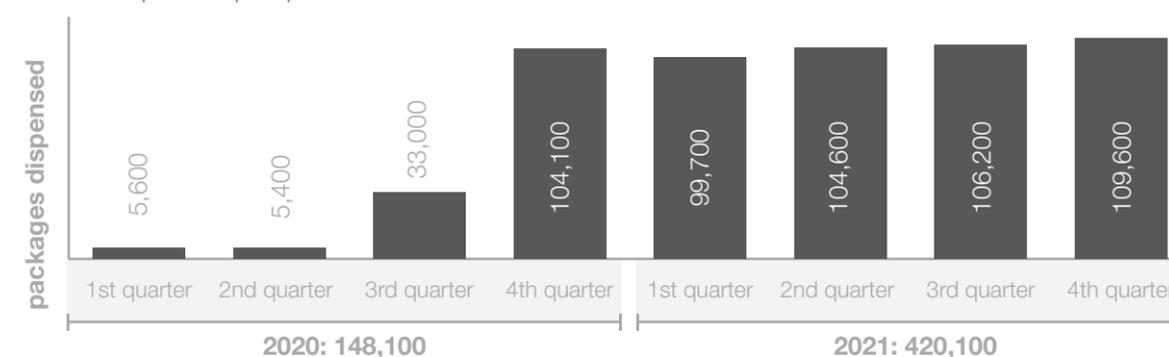
Source: German Institute for Drug Use Evaluation (DAPI), National Association of Statutory Health Insurance Funds

PHARMACEUTICALS WITH SPECIAL REQUIREMENTS

Special requirements apply to certain drug groups. For example, narcotics require a special prescription and documentation to prevent misuse or adverse effects. The same applies to medications containing thalidomide (T prescription). Special requirements also apply to temperature-sensitive medications to maximise their shelf life. As a result of a change to the law, the approximately 4,000 patients with haemophilia nationwide have been supplied with the necessary medicines by community pharmacies since September 2020.

Sales volume in packages	2019	2020	2021
Narcotics* (finished dosage forms)	10.9 million	11.1 million	11.1 million
Narcotics* (formulations)	7.1 million	7.2 million	6.6 million
Medicines prescribed on T prescriptions	96,000	116,000	132,000
Blood products as per German Transfusion Act and haemophilia preparations	319,000	460,000	726,000
Refrigerated products (max. storage temperature of 8 °C)	19.2 million	19.6 million	19.5 million
Medications subject to cold chain requirements**	10.0 million	11.7 million	11.4 million

Haemophilia preparations



* centrally active medications and substances that are heavily regulated and controlled by the state due to their potential for dependency, abuse and side effects.

** must be stored between 2 °C and 8 °C without interruption during the entire delivery and storage chain (e. g. vaccines)

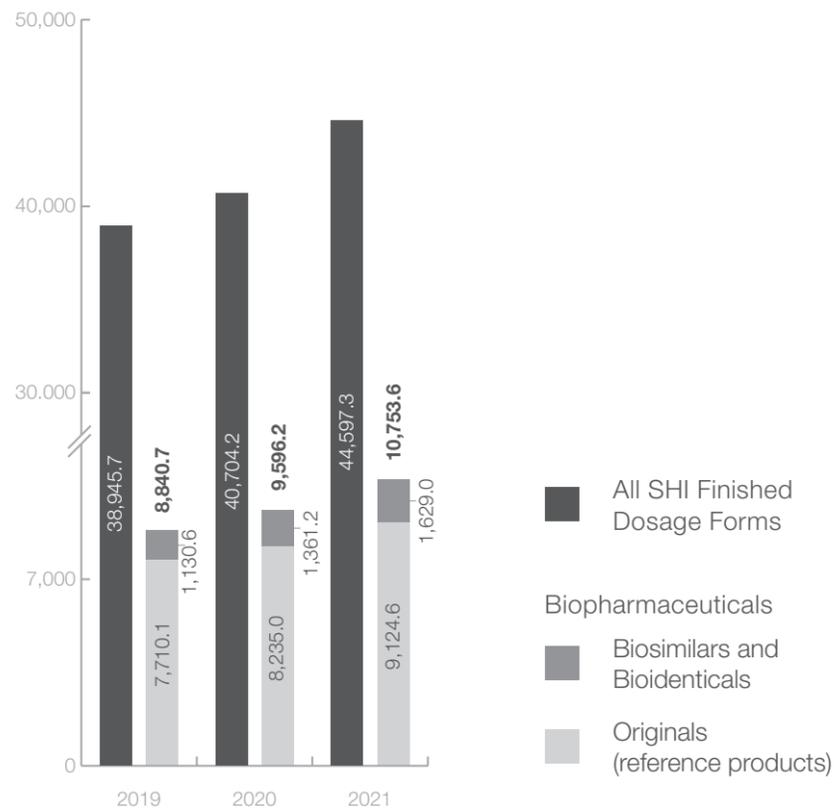
Finished dosage forms, formulations and vaccines (exclusive COVID-19 vaccines) dispensed in community pharmacies at the expense of SHI.

Source: German Institute for Drug Use Evaluation (DAPI)

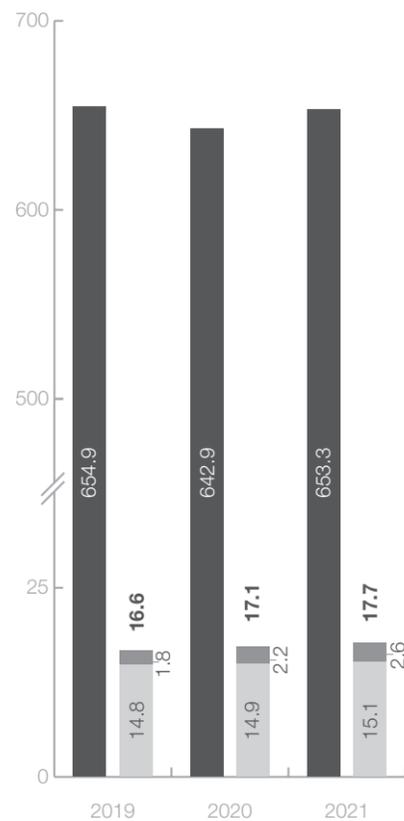
BIOPHARMACEUTICALS

Biopharmaceuticals, or biologicals, are medications produced in living cells using genetic engineering production processes for the treatment of serious diseases such as cancer or rheumatism. Their significance in the medical world continues to grow, as does their share of pharmaceutical costs. After patent protection expires, the often high-priced originals (reference products) can be replaced by low-priced biosimilars and biologics, although – unlike generics in chemically synthesised finished dosage forms – they are only similar, rather than identical. In order to save millions in expenses for health insurance funds, the Law for Greater Security in the Supply of Medications (GSAV) has instructed the Federal Joint Committee (GBA) to decide by August 2022 on the possibilities for exchanging prescribed biologics in pharmacies.

Revenue in million EUR



Sales volume in millions of packages



Finished dosage forms dispensed in community pharmacies at the expense of SHI

Source: German Institute for Drug Use Evaluation (DAPI), Pro Generika e.V.

Savings* resulting from use of biosimilars



TOP 10 Biopharmaceutical Drug Groups in 2021

	ATC Code	Revenue in million EUR	
1	Immunosuppressants	L04	4,380.5
2	Diabetes treatments (esp. insulin)	A10	1,690.9
3	Ophthalmologicals (for use on eyes)	S01	812.1
4	Antihemorrhagics	B02	690.6
5	Immunostimulants	L03	684.9
6	Other alimentary tract and metabolism products	A16	497.5
7	Other dermatological preparations	D11	295.1
8	Drugs for treatment of bone diseases	M05	267.9
9	Drugs for obstructive airway diseases (e.g. asthma, COPD)	R03	255.1
10	Antianemic preparations	B03	247.2
	All others		931.8
Total			10,753.6

Percentage of biopharmaceuticals with rebate contracts**

	2019	2020	2021
Biopharmaceuticals	63.5 %	64.3 %	65.5 %
Originals (reference products)	60.8 %	61.1 %	61.6 %
Biosimilars and Biologics	83.3 %	81.8 %	88.5 %

* price difference compared to reference product (not taking into account savings from rebate contracts)

** relative to sales volume

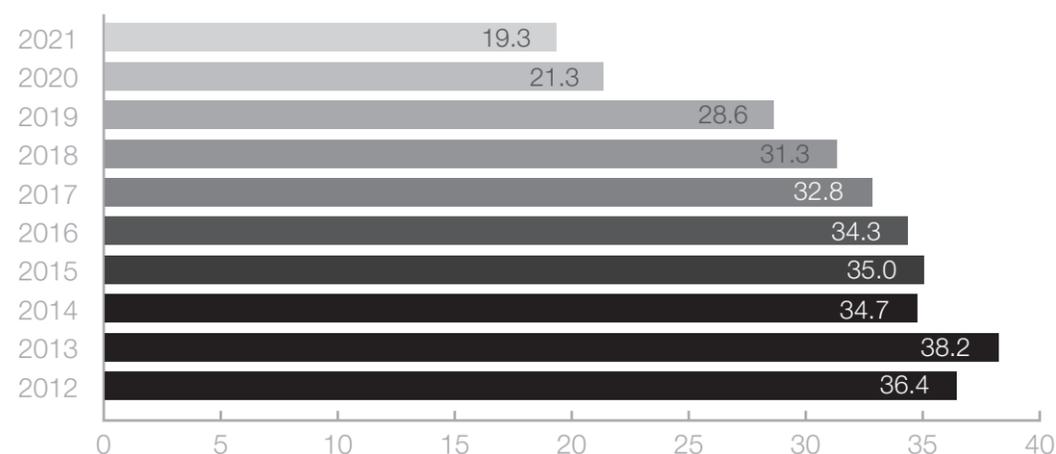
Source: Pro Generika e.V., German Institute for Drug Use Evaluation (DAPI)

ANTIBIOTICS

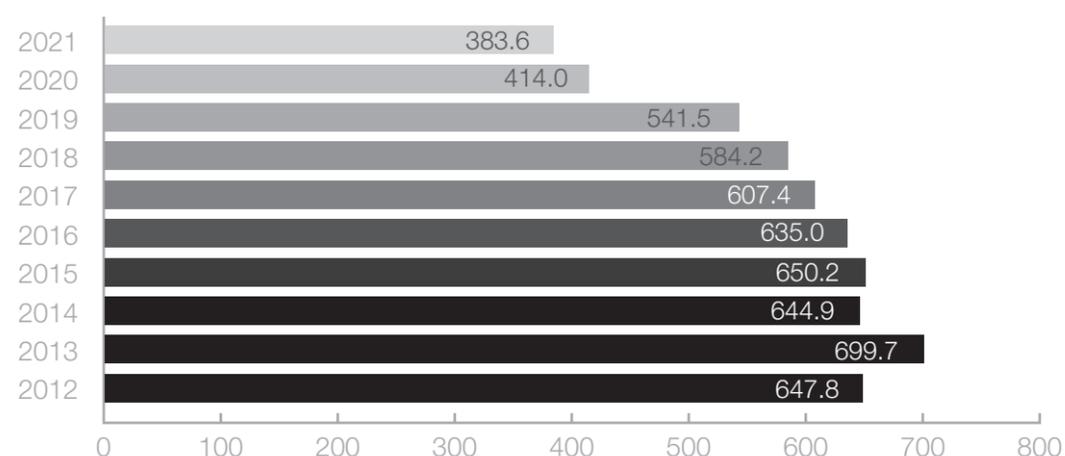
Antibiotics are essential for treating bacterial infections. However, incorrect or overly frequent use promotes the development of resistant strains of bacteria against which certain antibiotics become ineffective. Proper use of antibiotics includes, among other things, taking antibiotics only as prescribed by a doctor. Use of antibiotics in Germany has been falling since 2013. The sharp declines in 2020 and 2021 are likely due to the general decline in infectious diseases as a result of the protective measures designed to limit transmission of COVID-19.

Oral antibiotics

packages dispensed in millions



Revenue in million EUR



Oral antibiotics dispensed in community pharmacies at the expense of SHI Prescriptions from dentists are excluded from these figures.

Source: German Institute for Drug Use Evaluation (DAPI)

ANTIDIABETICS AND BLOOD SUGAR TEST STRIPS

There are currently an estimated 8.5 million people suffering from diabetes mellitus in Germany, around 95 % of whom have type 2 diabetes. The course and prognosis of diabetes depend decisively on the behaviour of the patients. Diabetics are supplied with medications at community pharmacies and can request ongoing consultation and monitoring. This includes not only the dispensing of medicines, but also the supply of blood glucose meters and the dispensing of the blood glucose test strips that are used with them. For this purpose, pharmacists' associations conclude supply contracts with health insurance funds at federal and state level.

Active substances primarily used to treat diabetes *

2021	Sales volume per 1,000 SHI-insured patients	Revenue per 1,000 SHI-insured patients
Oral antidiabetics	257	17,400 EUR
Insulins	149	18,300 EUR
Other subcutaneous** antidiabetics	27	7,100 EUR
All antidiabetics	433	42,800 EUR

Blood sugar test strips ***

	2019	2020	2021
Packages dispensed in millions	20.6	18.9	17.3
Quantities in millions	1,062	973	888
Revenue in million EUR (incl. VAT)	533.5	479.4	440.7

* Antidiabetics dispensed in community pharmacies at the expense of SHI.

** for injection under the skin

***Blood sugar test strips dispensed in community pharmacies at the expense of SHI (excluding consultation room supplies).

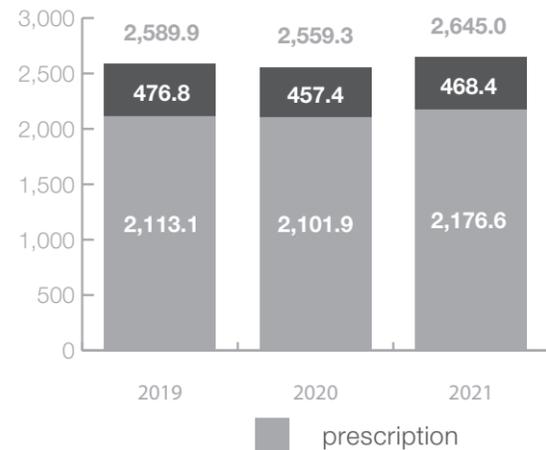
Source: German Institute for Drug Use Evaluation (DAPI), Deutscher Gesundheitsbericht Diabetes 2022

ANALGESICS

Painkillers are among the most frequently used medications, but they also harbour a considerable potential for abuse (doping, addiction, etc.). Prescription painkillers (including narcotics) account for the majority of sales (in euros), while their sales (in packs) are lower than for self-medication. In the case of OTC painkillers – often tablets or gels – the pharmacy is the only institution that can question and correct the patients’ self-diagnoses. The use of painkillers over several days is usually not advisable and a visit to the doctor is recommended.

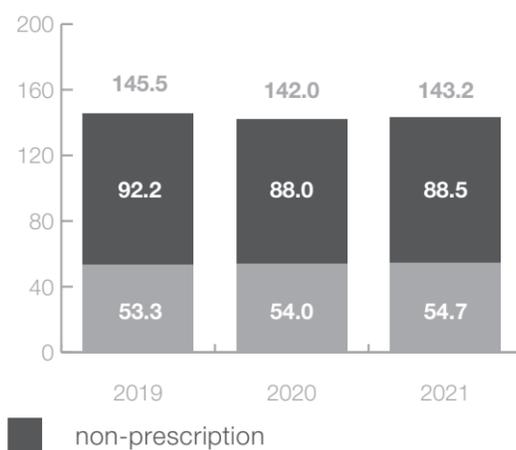
Revenue

in million EUR



Sales volume

in millions of packages



Top 10 pharmaceutical ingredients by sales volume 2021

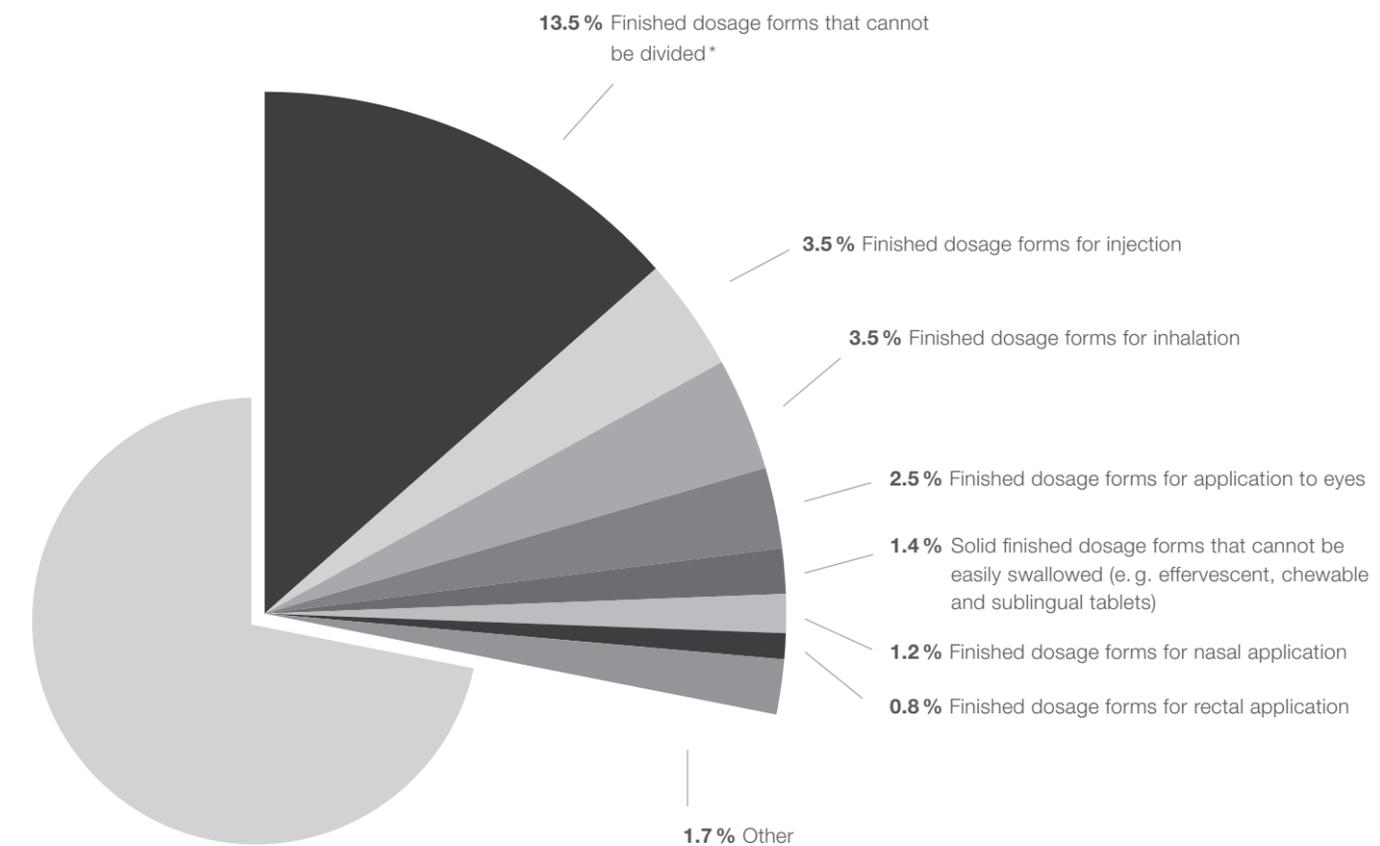
prescription		in millions of packages	non-prescription		in millions of packages
1	Metamizole	31.6	Ibuprofen	41.9	
2	Tilidine + naloxone (narcotics)	6.6	Paracetamol	25.6	
3	Tramadol	2.8	Acetylsalicylic acid + paracetamol + caffeine	7.5	
4	Fentanyl (narcotic)	2.1	Acetylsalicylic acid	3.7	
5	Hydromorphone (narcotic)	1.6	Acetylsalicylic acid + ascorbic acid	2.8	
6	Sumatriptan	1.3	Diclofenac	2.7	
7	Oxycodone (narcotic)	1.3	Naratriptan	1.5	
8	Oxycodone + naloxone (narcotics)	1.3	Ibuprofen + caffeine	1.3	
9	Morphine (narcotic)	1.1	Paracetamol + caffeine	0.6	
10	Tapentadol (narcotic)	1.0	Acetylsalicylic acid + paracetamol	0.3	
	All others	4.0	All others	0.6	
Total		54.7	Total	88.5	

PHARMACEUTICALS REQUIRING EXTENSIVE CONSULTATION

In 2021, pharmacies dispensed around 183 million pharmaceuticals, which – regardless of the active ingredient – are particularly consultation-intensive simply because of their dosage form. This represented 28 % of all finished dosage forms dispensed at the expense of SHI. Counselling and dispensing can be complex, for example if the use of an asthma inhaler needs to be demonstrated.

All SHI finished dosage forms 2021

(649.9 million packages)



All dosage forms requiring intensive consultation: 28.1 % (182.6 million packages)

* Dosage forms such as enteric-coated medications or sustained-release medicines that should not be divided without consulting a doctor or pharmacist

Source: German Institute for Drug Use Evaluation (DAPI)

Dispensing of finished dosage forms in community pharmacies

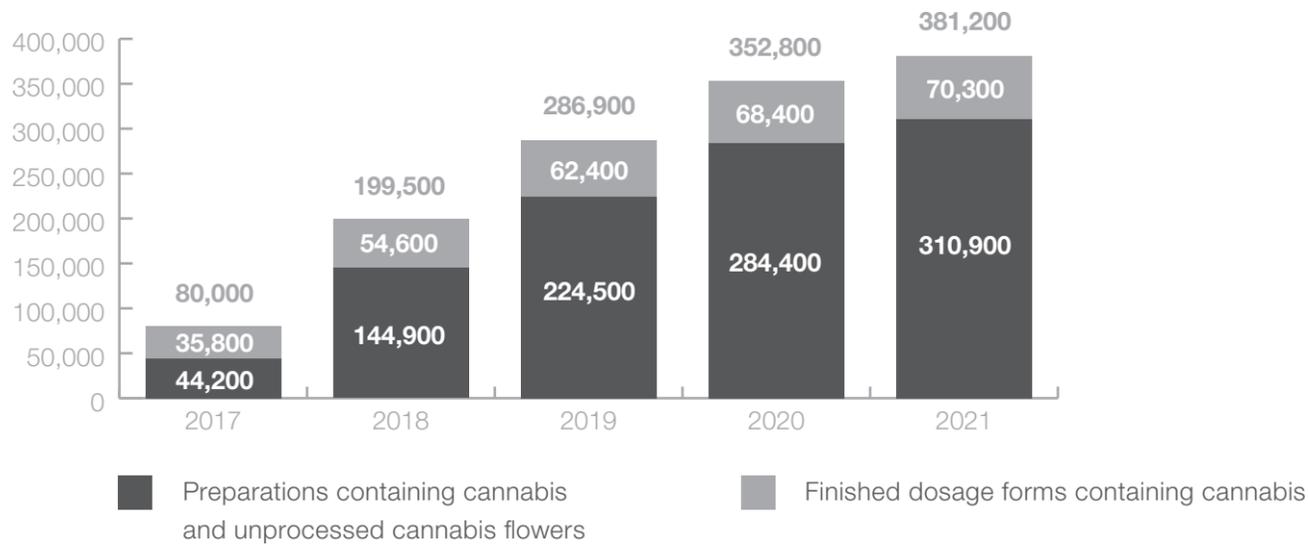
Source: Insight Health GmbH & Co. KG

MEDICAL CANNABIS

Since 10 March 2017, doctors have been permitted within the bounds of their therapeutic freedom to prescribe medical cannabis in individual cases. Any pharmacy can produce and dispense appropriate magistral preparations. Cannabis can be prescribed in various forms, for example as flowers or as dronabinol, the isolated form of the main active agent in the plant, more commonly known as “THC”. Doctors decide on the dosage and method of consumption. Pharmacists provide their patients with corresponding instructions when dispensing the prescription drug. Once authorisation has been granted, health insurance funds cover the costs of the medication prescribed by doctors.

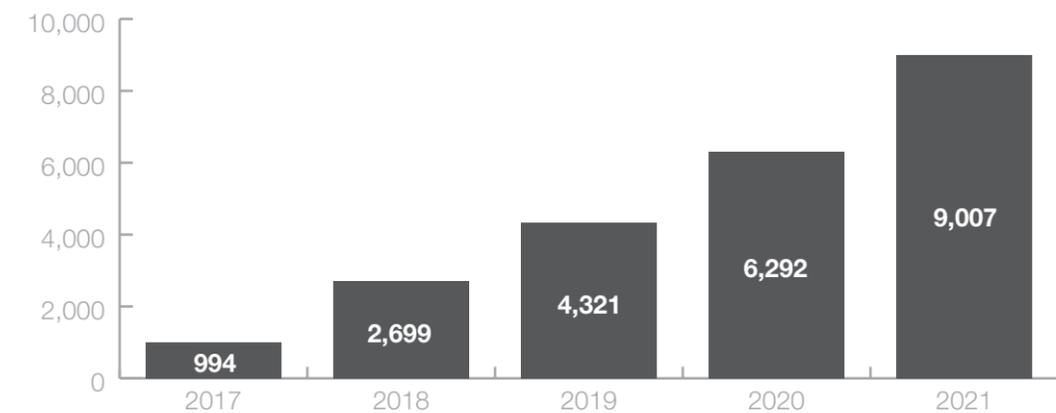
Cannabis prescriptions for SHI-insured patients*

(number of units dispensed)



Cannabis delivered to pharmacies for medicinal purposes

(in kilograms)

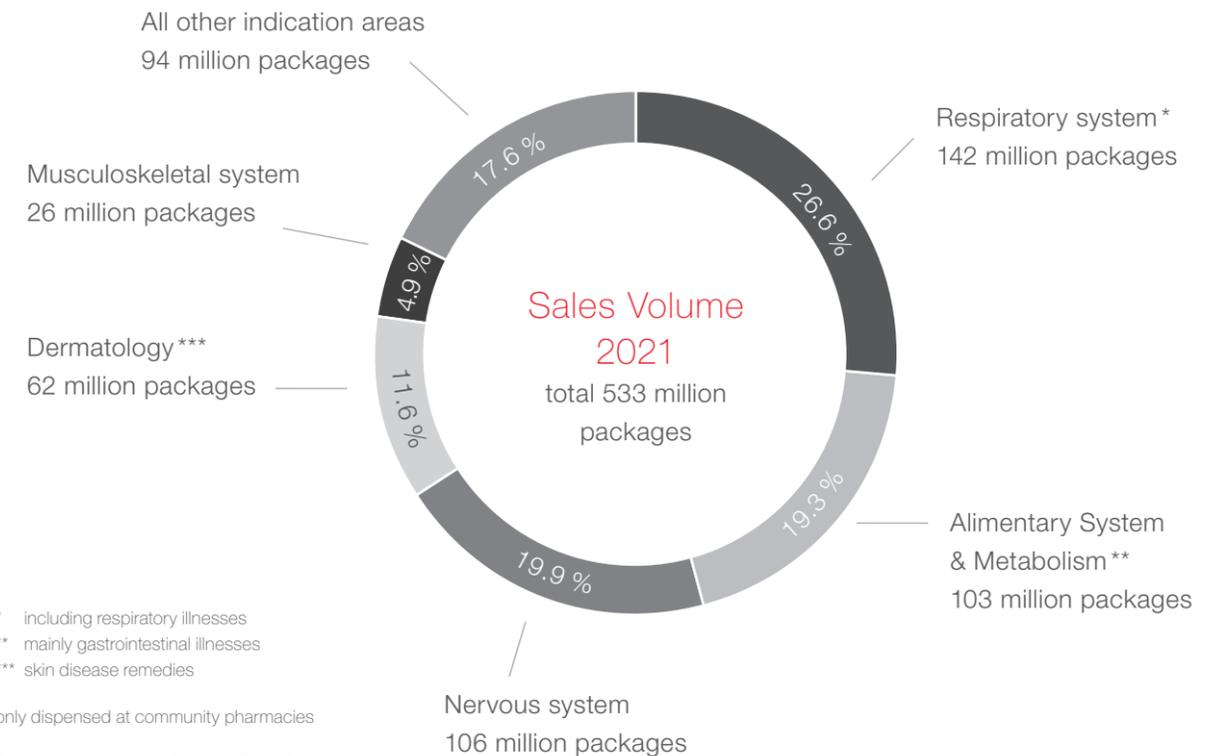
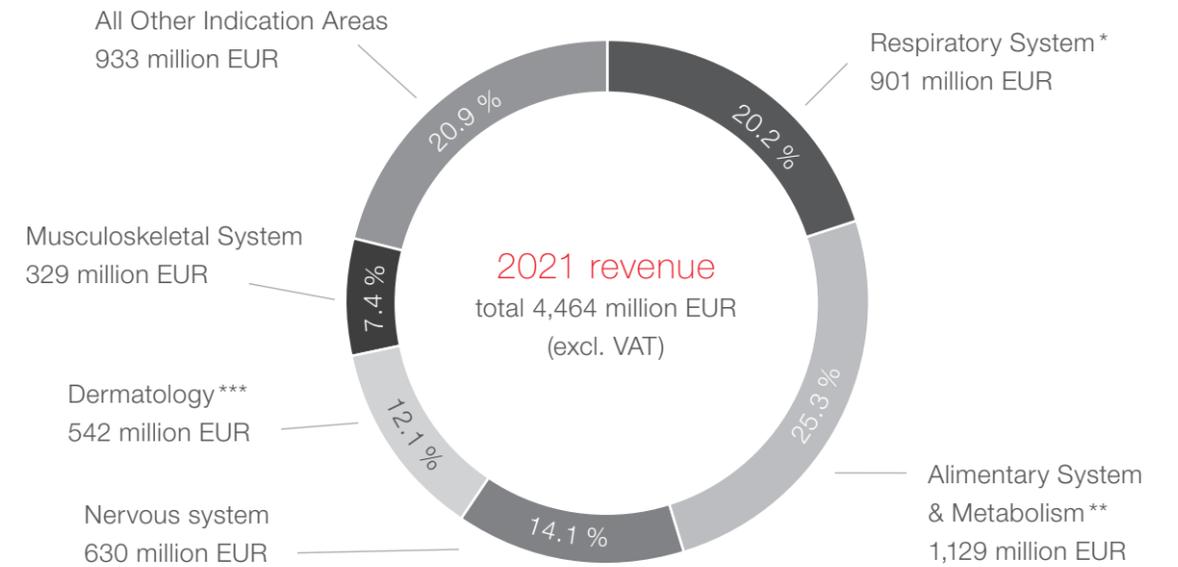


* only cannabis dispensed in community pharmacies

Source: German Institute for Drug Use Evaluation (DAPI), Federal Institute for Drugs and Medical Devices (BfArM)

OTC PHARMACEUTICALS: LEADING INDICATION AREAS

OTC (over the counter) preparations are non-prescription, pharmacy-only, unrestricted medications that are primarily sold in the area of self-medication. Consultation at the pharmacy is particularly important as it allows patients' self-diagnoses to be questioned. The demand for these products can fluctuate massively throughout the year, for example during cold or hay fever season.



* including respiratory illnesses
 ** mainly gastrointestinal illnesses
 *** skin disease remedies

only dispensed at community pharmacies

Source: Insight Health GmbH & Co. KG

NON-PRESCRIPTION PHARMACEUTICALS: SPECIAL SCHOOLS OF THERAPY

Herbal, homeopathic and anthroposophic medicinal products are some of the special schools of therapy covered by the German Medicinal Products Act (AMG). These non-prescription medications (incl. healthcare products) are in high demand at pharmacies.

Revenue development in million EUR (excl. VAT)

	2019	2020	2021
Herbal medicines	989	855	821
Homeopathic medicines	368	325	305
Anthroposophic medicines	93	86	87

Sales volume development in millions of packages

	2019	2020	2021
Herbal medicines	98	80	75
Homeopathic medicines	32	27	25
Anthroposophic medicines	9	8	8

only products dispensed at community pharmacies

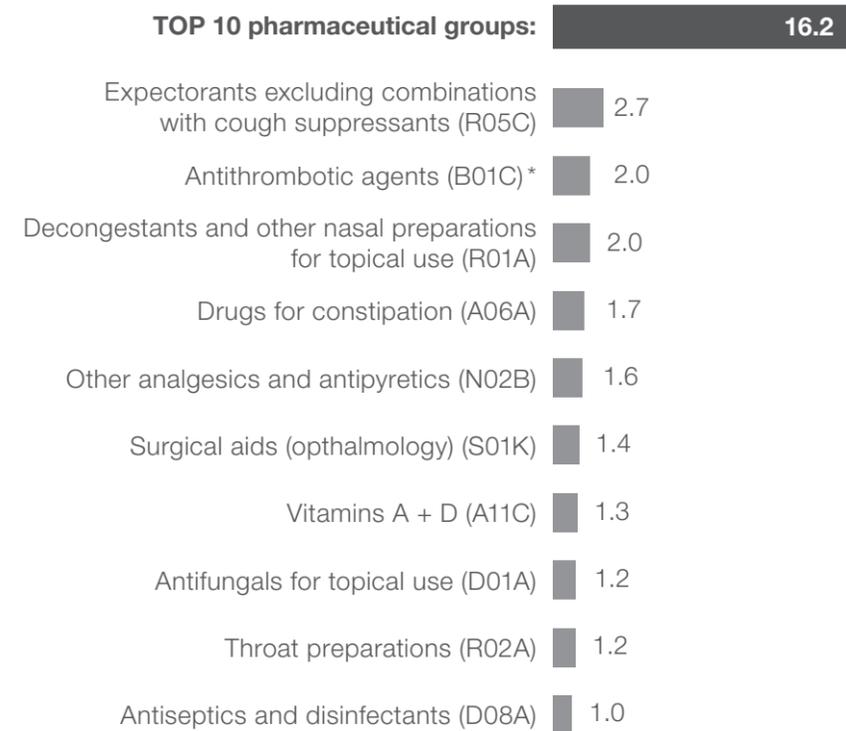
Source: Insight Health GmbH & Co. KG

GREEN PRESCRIPTIONS

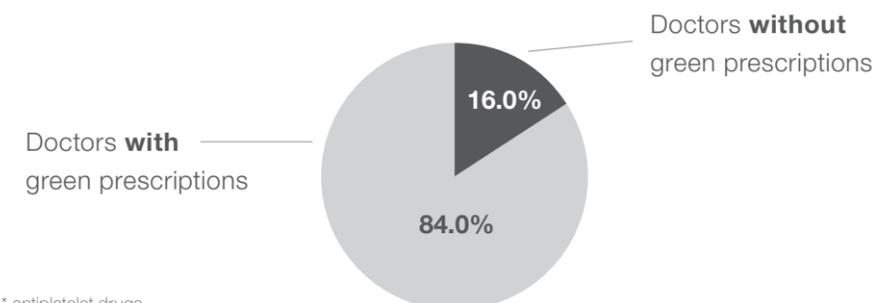
Doctors use green prescriptions to recommend non-prescription medications to their patients, which the patients then pay for themselves at the pharmacy. However, the form also contains the information that the green prescription can be submitted to many health insurance companies for reimbursement as a statutory benefit. In any case, the green prescription serves to remind patients of the name, active ingredient and dosage form of the medication.

Prescriptions in 2021 in millions

Non-prescription drugs with a green prescription **35.5**



Use of green prescriptions 2021



* antiplatelet drugs

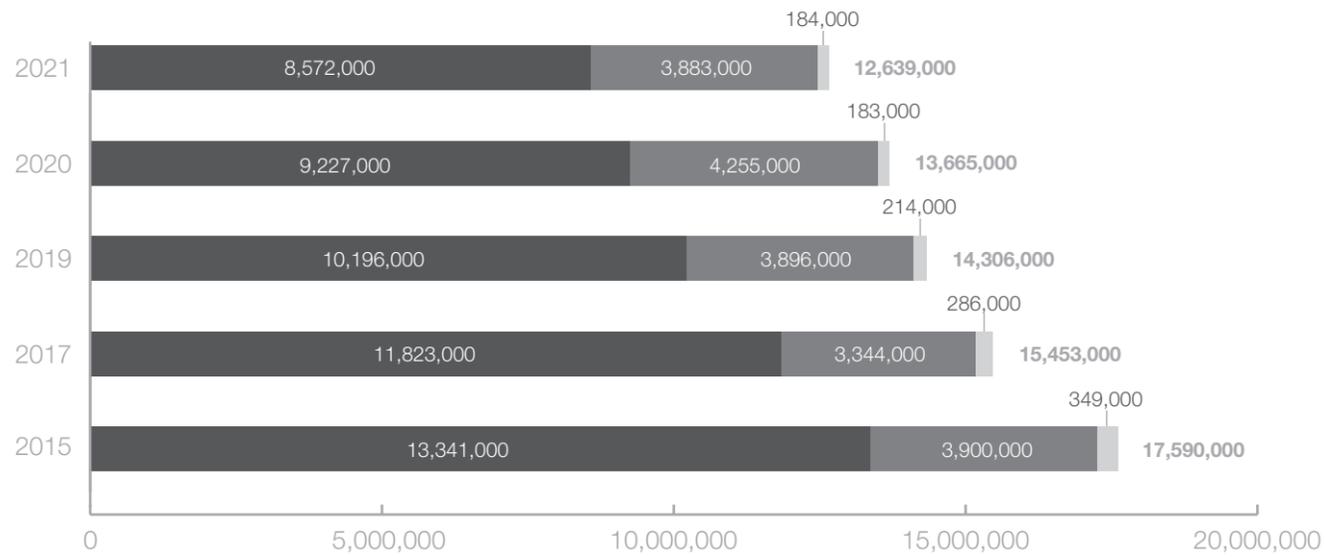
Source: Federal Association of the Pharmaceutical Industry (BPI), IQVIA Commercial GmbH & Co. OHG (IMS Diagnosis Monitor)

SUPPLY OF CONTRACEPTIVES

Emergency contraception (more commonly known as the “morning after pill”) has been available without prescription at German pharmacies since 15 March 2015. Lawmakers wanted to give women easier access to this contraceptive, and sales figures (as self-medication) have increased as a result, while doctors’ prescriptions have fallen sharply. As is the case with other contraceptives, women below the age of 22 are entitled to reimbursement of the cost from their SHI funds, as long as they are prescribed by a doctor with a pink prescription.

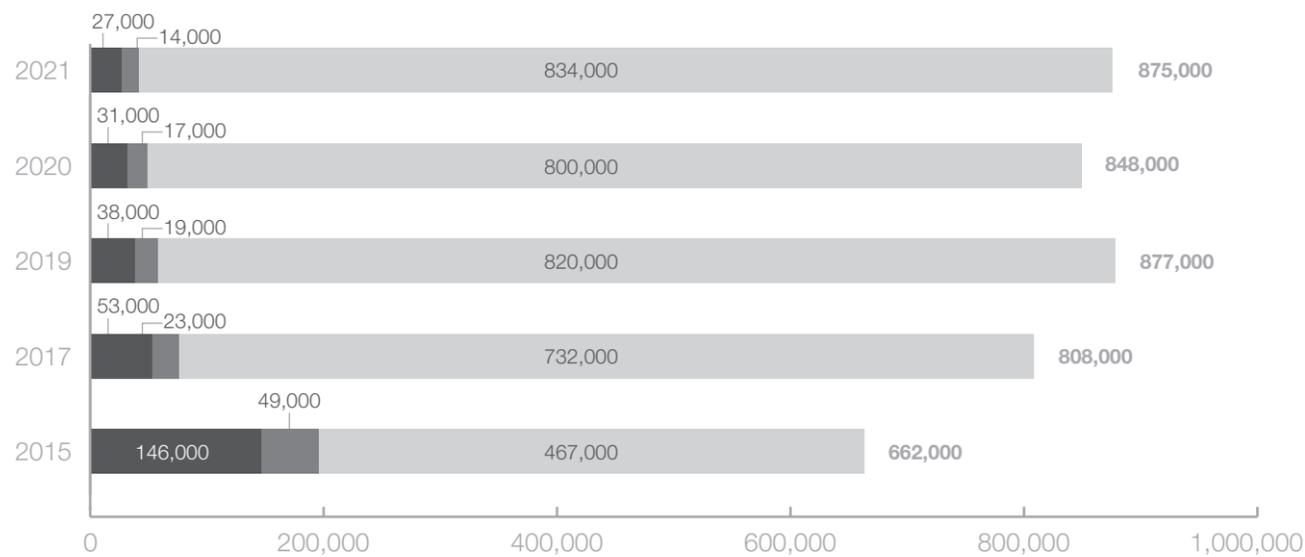
Sales of contraceptives in community pharmacies

packages dispensed (excl. emergency contraception)



Sales of emergency contraception in community pharmacies

packages dispensed



■ with private prescription ■ with SHI prescription ■ without prescription

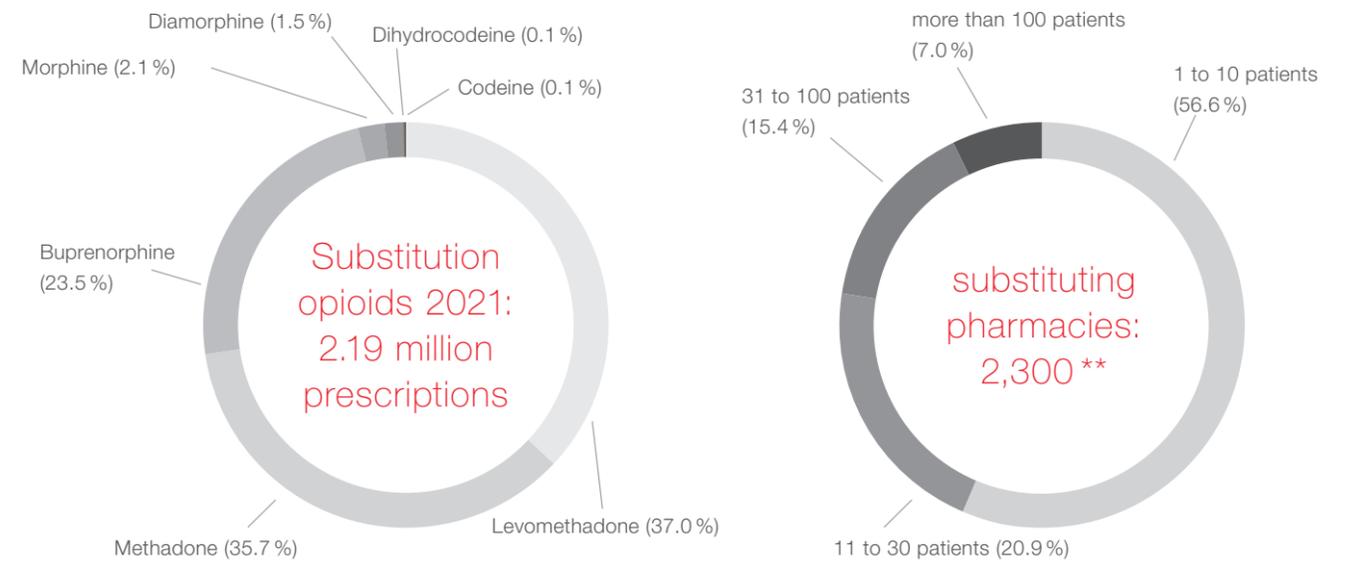
Source: Insight Health GmbH & Co. KG

SUBSTITUTION TREATMENT

Medical substitution therapy is used to improve and stabilise the health of opioid addicts. The production and dispensing of replacement opioids, which are subject to special regulatory requirements, is carried out by approximately 2,300 community pharmacies. At the doctor’s request, the prescribed narcotics can be given to the patients for immediate consumption in the pharmacy (supervised consumption). This is a voluntary pharmaceutical service.

Substitution treatment 2021 *

	Number of listings
Patients	81,300
Doctors	2,496



Substitution treatment with statutory health insurance

	2019	2020	2021
Prescriptions in millions	2.35	2.27	2.19
Revenue in million EUR	87.4	90.0	95.2

* data from the Substitution Register, 2021

** German Pharmacists’ Association (DAV) survey from 2018. The figure of 2,300 substituting pharmacies is an estimate.

Source: Federal Institute for Drugs and Medical Devices (BfArM), German Pharmacists’ Association (DAV), National Association of Statutory Health Insurance Funds

SUPPLY OF MEDICAL AIDS AND BANDAGES

In addition to medical supply stores, pharmacies can also supply SHI-insured customers with medical aids. This usually requires the pharmacy to participate in a supply contract between the health insurance fund and the pharmacists' association. This requires a "prequalification", which confirms all necessary prerequisites for the supply in advance, depending on the medical aid group. Around 18,000 pharmacies have at least one product-group-specific prequalification. The supply of bandages is also a key area of responsibility for pharmacies.

SHI medical aid revenue* in community pharmacies 2021	in million EUR
Application aids (e.g. needles for insulin pens)	291
Incontinence aids (e.g. incontinence pads)	123
Consumable aids for caregivers (e.g. finger stalls and face masks)	120
Compression therapy aids (e.g. compression stockings)	94
Measuring devices for body conditions/functions (e.g. lancets and blood pressure monitors)	48
Inhalation and breathing therapy devices (e.g. nebulisers)	41
Suction devices (e.g. breast pumps)	23
Visual aids (e.g. eye patches)	19
Bandages	9
Stoma products	5
Orthoses/splints	5
Other product groups	26
Total	804 million EUR (incl. VAT)
SHI revenue from bandages* in community pharmacies 2021	in million EUR
Modern wound treatment (e.g. hydropolymer dressings)	465
Compresses	126
Bindings	100
Plasters	64
Adhesive gauze	25
Bandages	16
Swabs	6
Cotton wool	6
Other product groups	16
Total	824 million EUR (incl. VAT)

* Individual prescriptions and consultation room supplies at pharmacy retail prices

Source: German Institute for Drug Use Evaluation (DAPI)

VACCINES

Statutory health insurance (SHI) spends nearly two billion euros per year (incl. VAT) on vaccines. They are usually prescribed as consultation room supplies with a pink prescription. Flu waves and recommendations from the Standing Committee on Vaccination (STIKO) account for changes taking place seasonally or multiple times per year. Community and hospital pharmacies were financially compensated by lawmakers for flu vaccine doses which were ordered by doctors' offices and clinics during the 2020/2021 flu season but not administered.



	Vaccine dose sales (in millions)			Revenue in million EUR (incl. VAT)		
	2019	2020	2021	2019	2020	2021
Influenza (flu)	14.0	19.3	19.5	173	240	466
Pertussis (whooping cough)*	7.9	7.5	6.9	348	320	293
Pneumococcus	3.6	5.1	3.8	191	257	192
TBE (tick-borne encephalitis)	4.9	4.3	3.8	180	154	136
Measles**	2.2	2.8	2.3	123	162	141
Varicella zoster (chickenpox, shingles)	1.4	2.6	2.7	98	231	318
HPV (human papillomaviruses)	1.3	1.3	1.2	203	194	175
Rotavirus	1.3	1.2	1.3	61	59	74
Meningococcus	1.0	0.9	0.9	41	42	48
Hepatitis	0.8	0.7	0.6	48	37	31
Other	1.3	1.1	0.8	20	15	12
Total	39.7	46.8	43.8	1,486	1,711	1,886

Disbursement of unadministered influenza vaccines in the 2020/2021 season	Community pharmacies	Hospital pharmacies
Pharmacies	7,485	88
Number of unadministered influenza vaccine doses	616,000	32,000
Reimbursement sum***	6.74 million EUR	299,000 EUR

* incl. combination vaccines for diphtheria, tetanus, etc.

** incl. combination vaccines for mumps, rubella, chickenpox

*** without taking into account the handling fee of the Emergency Service Fund in the amount of 12.50 EUR per pharmacy

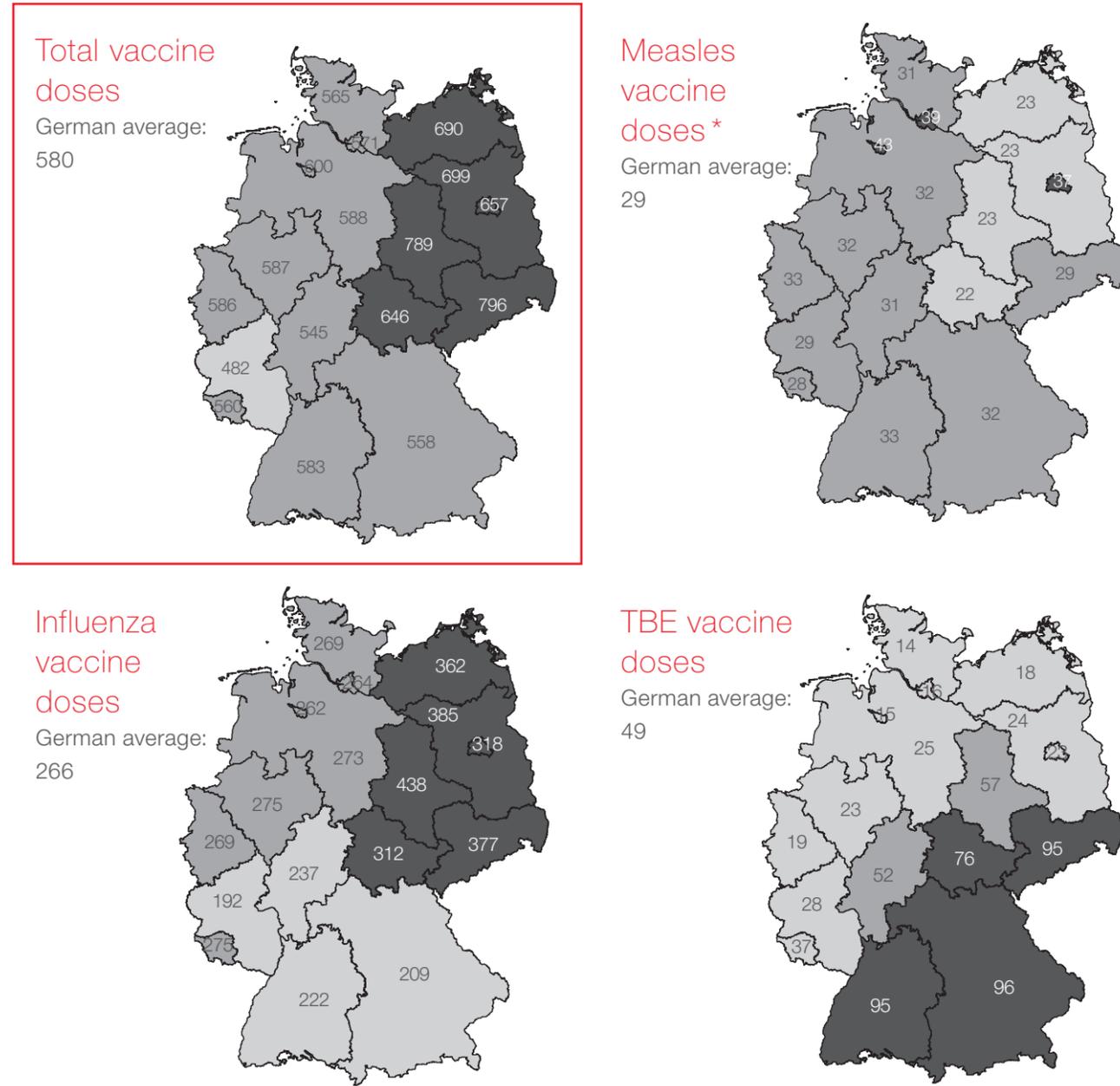
The figures only include vaccine purchases from community pharmacies.

COVID-19 vaccines are billed to the Federal Office for Social Security (BAS). They are not covered by this evaluation.

Source: German Institute for Drug Use Evaluation (DAPI), Emergency Service Fund

Vaccines are subject to regional and seasonal differences. The higher numbers in the “new” Federal States in the East are mainly due to greater influenza vaccination coverage. In the case of measles, individual eastern and western German states are ahead of others. For tick-borne encephalitis (TBE), the higher vaccination rates in southern Germany can be explained by the prevalence of ticks there in summer.

Vaccine doses administered at the expense of SHI per 1,000 SHI-insured individuals in 2021



* incl. combination vaccines for mumps, rubella, chickenpox

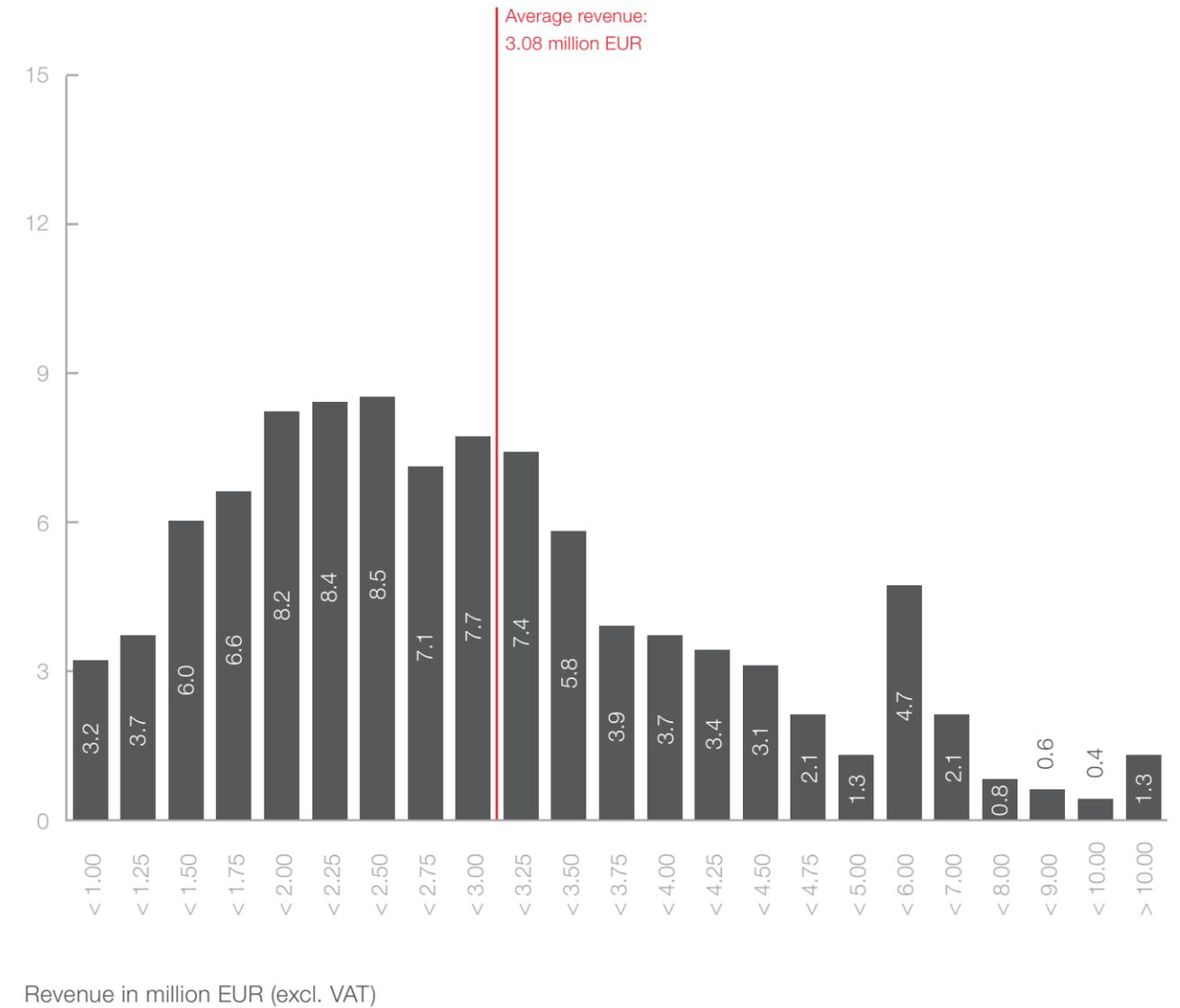
The figures only include vaccine purchases from community pharmacies. COVID-19 vaccines are billed to the Federal Office for Social Security (BAS). They are not covered by this evaluation.

Source: German Institute for Drug Use Evaluation (DAPI)

PHARMACIES BY REVENUE CATEGORY

The average net revenue of a pharmacy in Germany is approx. 3.08 million euros per year (excl. VAT), but this figure varies greatly between individual pharmacies. Around 60 % of pharmacies fall short of the average revenue, while some large pharmacies greatly exceed it.

Percentage of pharmacies



Reporting year 2021

Source: Treuhand Hannover GmbH (Treuhand data panel)

OPERATING RESULTS OF THE AVERAGE PHARMACY

Three quarters of the average pharmacy's turnover (3.08 million euros per year) are spent on the cost of sales. Personnel and other costs must be deducted from the remaining gross profit. Due to pandemic-related special effects, profit before tax was 211,000 euros in 2021. However, this amount cannot be equated to a gross salary, since pharmacy owners, as freelancers, not only have to pay taxes from it, but also have to make investments in the pharmacy and fund their own pensions in full.

	2019	2020	2021
Net revenue* in thousand EUR	2,587	2,776	3,079
- Cost of sales	1,991	2,152	2,366
= Gross profit	596	624	713
- Personnel costs	272	280	298
- Other tax-deductible costs	181	188	216
= Fiscal operating result (pre-tax)**	148	166	211
of which partial operating result for the SHI***	84	85	79
of which subsidies from the Emergency Service Fund	6	8	8
of which subsidies for the courier service	0	4	4

SHI = statutory health insurance

* excl. turnover tax and SHI markdowns

** incl. subsidies from the Emergency Service Fund

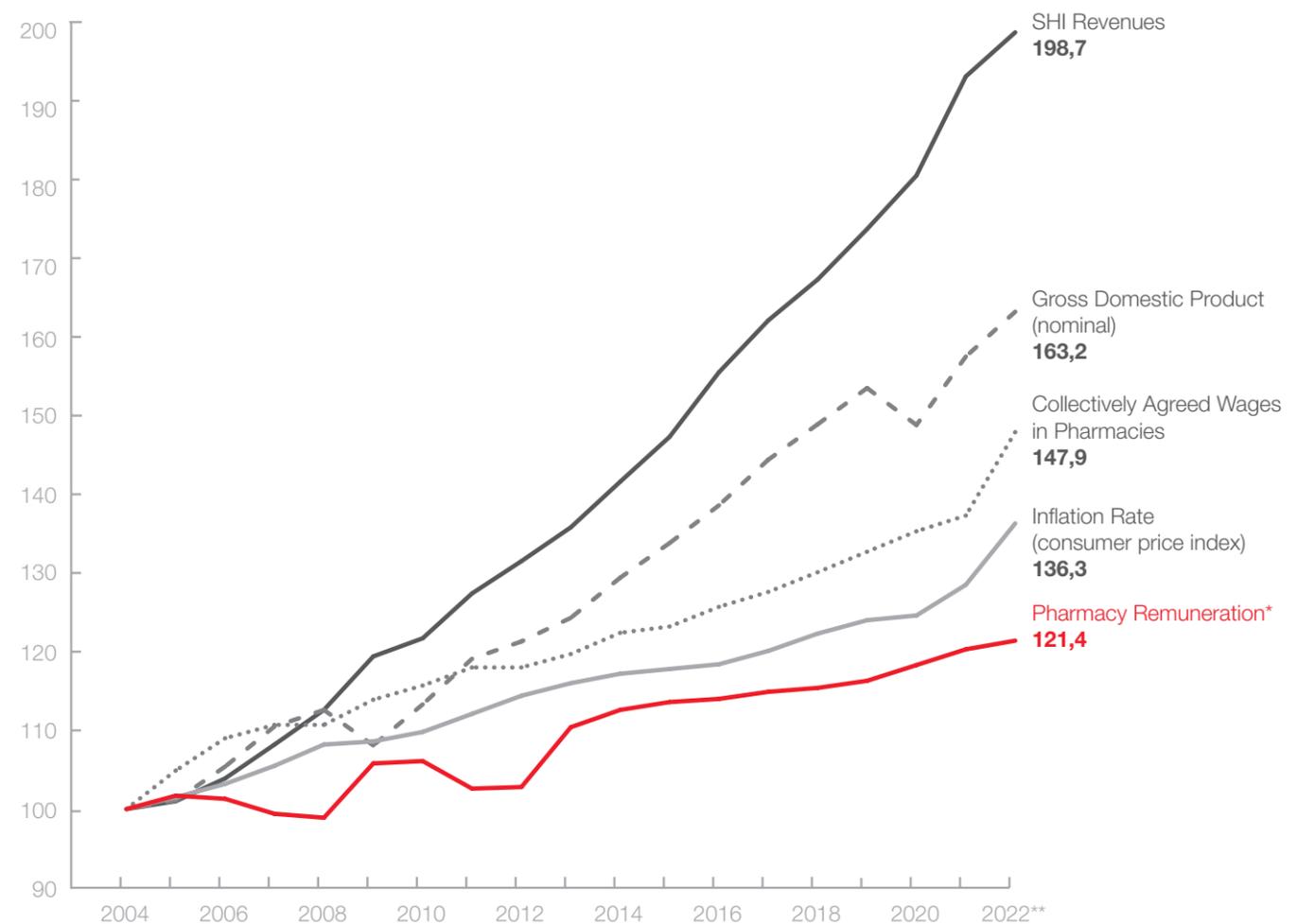
*** cost allocation was carried out using the 50/50 revenue/sales method

Source: Treuhand Hannover GmbH (Treuhand data panel)

DEVELOPMENT OF PHARMACY REMUNERATION

In 2004, the pharmacy fee was set at 8.10 euros per prescription-only pharmaceutical. In 2013, it was increased for the first time in ten years to 8.35 euros. In addition, there is a mark-up of 3% of the pharmacy purchase price as well as a mark-up of 0.21 euros to fund nighttime and emergency services. For pharmaceuticals billed to statutory health insurance (SHI) funds, the pharmacy markdown, which is currently 1.77 euros (incl. VAT), lowers the effective pharmacy fee. Material costs (e.g. energy costs) and personnel costs (e.g. collectively agreed wages) have increased significantly more than remuneration.

Index (2004 = 100)



* Pharmacy remuneration per prescription drug package according to § 1 AMPreisV in conjunction with § 130 SGB V

** Prognosis

AMPreisV = Drug Price Ordinance

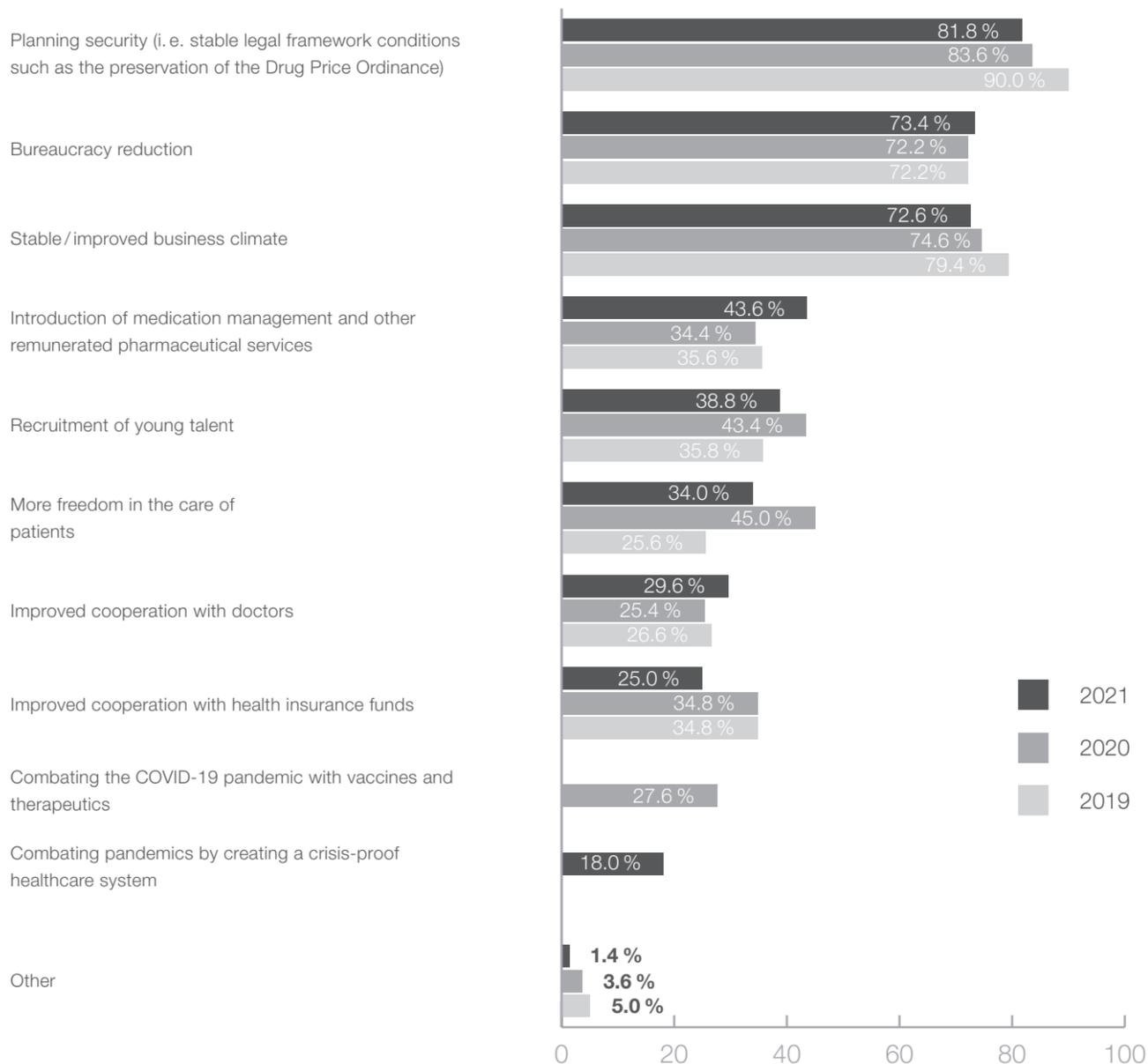
SGB = German Social Code (Sozialgesetzbuch)

Source: Federal Ministry of Health (BMG), Federal Statistical Office of Germany (DESTATIS), ADEXA, ABDA statistics

PHARMACY FUTURE EXPECTATIONS

In addition to the retrospective view of the business results, future expectations are decisive in evaluating the overall situation of pharmacies. The industry climate has also clouded over in recent years due to unresolved regulatory issues. The Local Pharmacy Strengthening Act (VOASG), which was passed at the end of 2020, has brought about some important changes in the industry and thus undoubtedly affected the survey results in 2021.

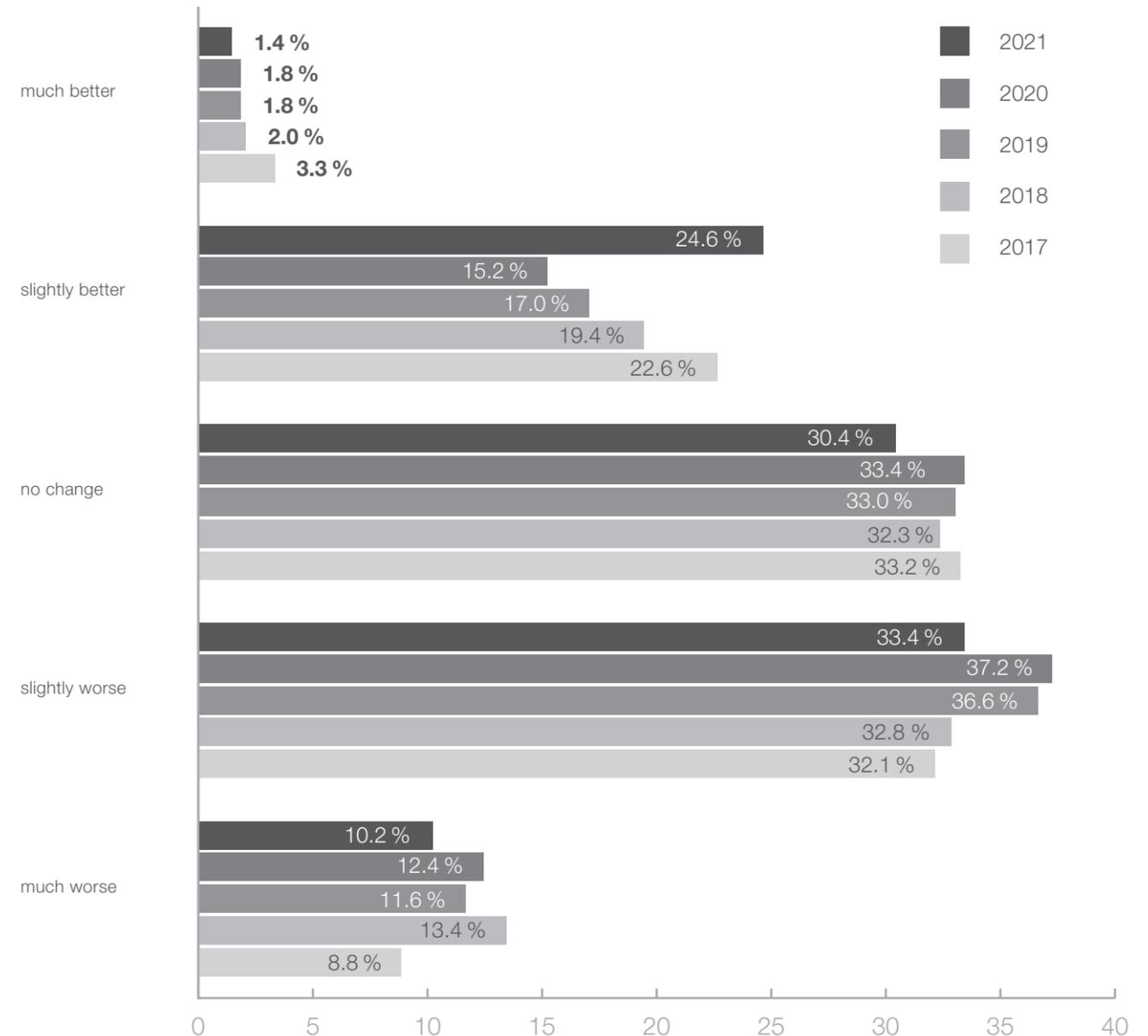
What pharmacy owners view as the most important health policy challenges of the next two to three years



Source: Pharmacy climate index 2021 (marpinion GmbH)

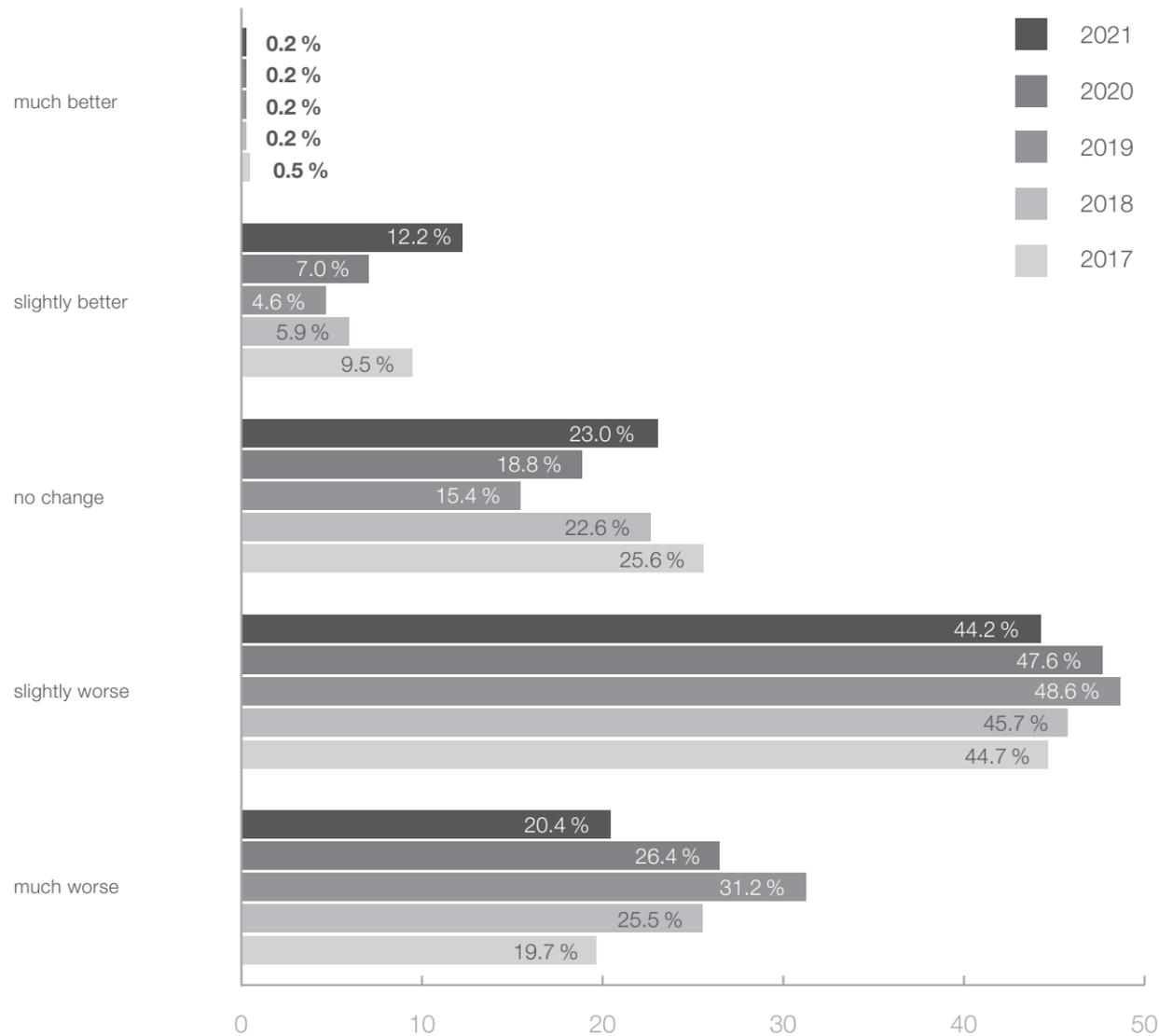
Despite the relatively stable average business results of pharmacies, the outlook of pharmacy owners has become gradually worse in recent years. This is partly due to pharmacy remuneration developing below the inflation rate for a prolonged period. The worsened outlook applies both to expectations for their own businesses as well as for the industry as a whole. One major reason for this is the lack of planning security. Meanwhile, VOASG has provided more planning security and thus also improved the outlook of respondents in 2021.

Economic expectations of owners for their own business in the next two to three years



Source: Pharmacy climate index 2021 (marpinion GmbH)

Economic expectations of owners for the pharmacy industry in the next two to three years



Source: Pharmacy climate index 2021 (marpinion GmbH)

PHARMACY OPERATION AND INVESTMENT

In order to operate a community pharmacy, numerous conditions must be fulfilled. These are listed in the German Pharmacies Act (ApoG) and the Ordinance on the Operation of Pharmacies (ApBetrO). They require extensive investment. The minimum requirements in terms of quality management, patient friendliness and suitability for everyday use are far exceeded by many pharmacies, but that requires extensive investment.

Operating licence

- » licensed pharmacists
- » personal management
- » sole responsibility

Business premises

- » at least 110 square metres of floor space
- » office, laboratory, storage, nighttime service room

Pharmaceuticals

- » prescription and pharmacy-only medications as special goods
- » finished dosage forms, formulations and narcotics
- » stock for at least one week with average demand

Quality management

- » pharmaceutical personnel including PTAs, pharmaceutical engineers, pharmacists
- » mandatory QM system for processes in the pharmacy
- » guidelines of the Federal Chamber of Pharmacists and certification (chamber certificate, TÜV etc.) as guidance

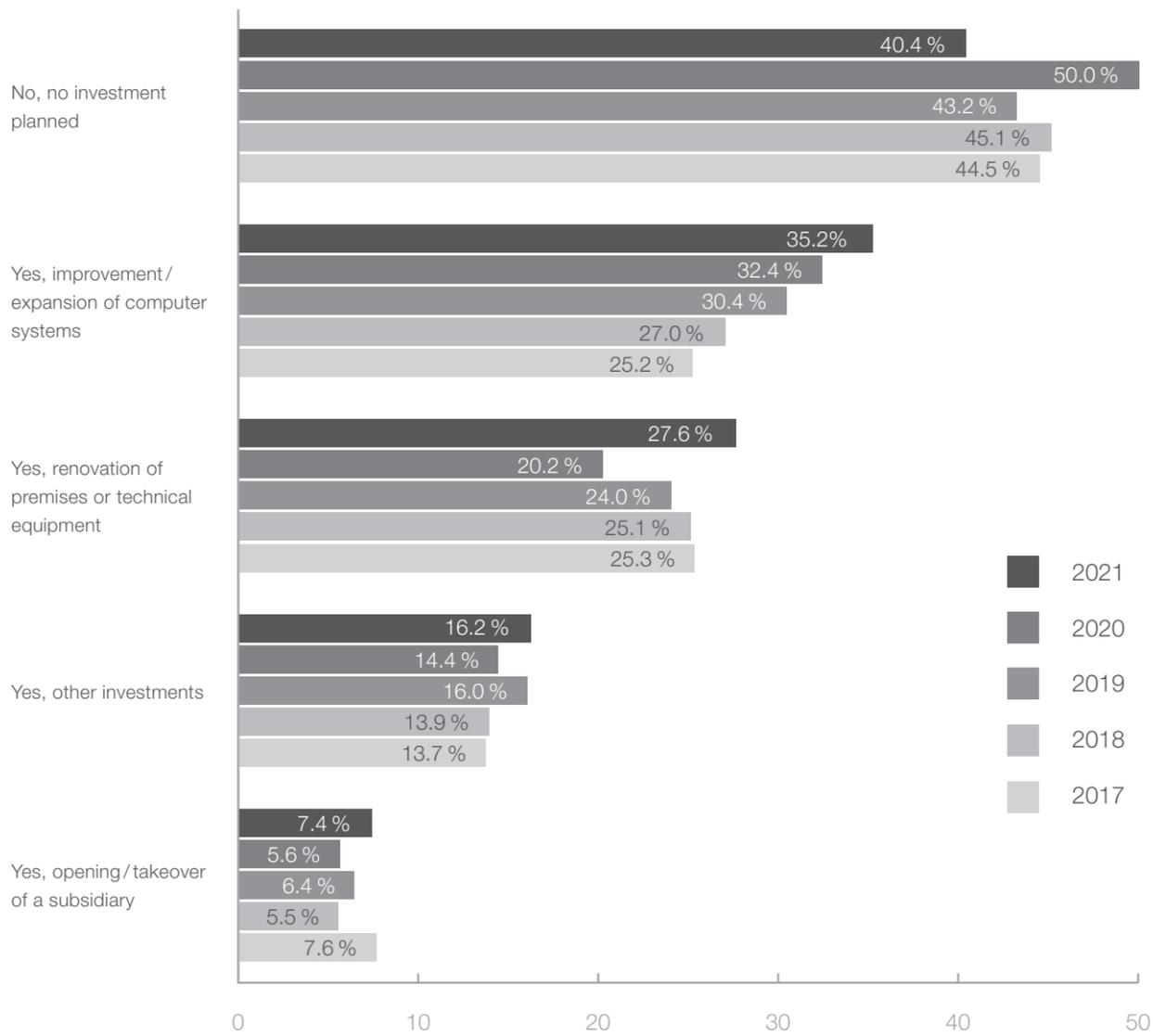
Standby duty

- » proper supply of medicines to the population
- » obligation to be permanently on duty with a scheduled exemption from the chambers of pharmacists
- » posting of information about the nearest pharmacy on duty at every pharmacy

PTA = pharmaceutical technical assistant
 QMS = quality management system

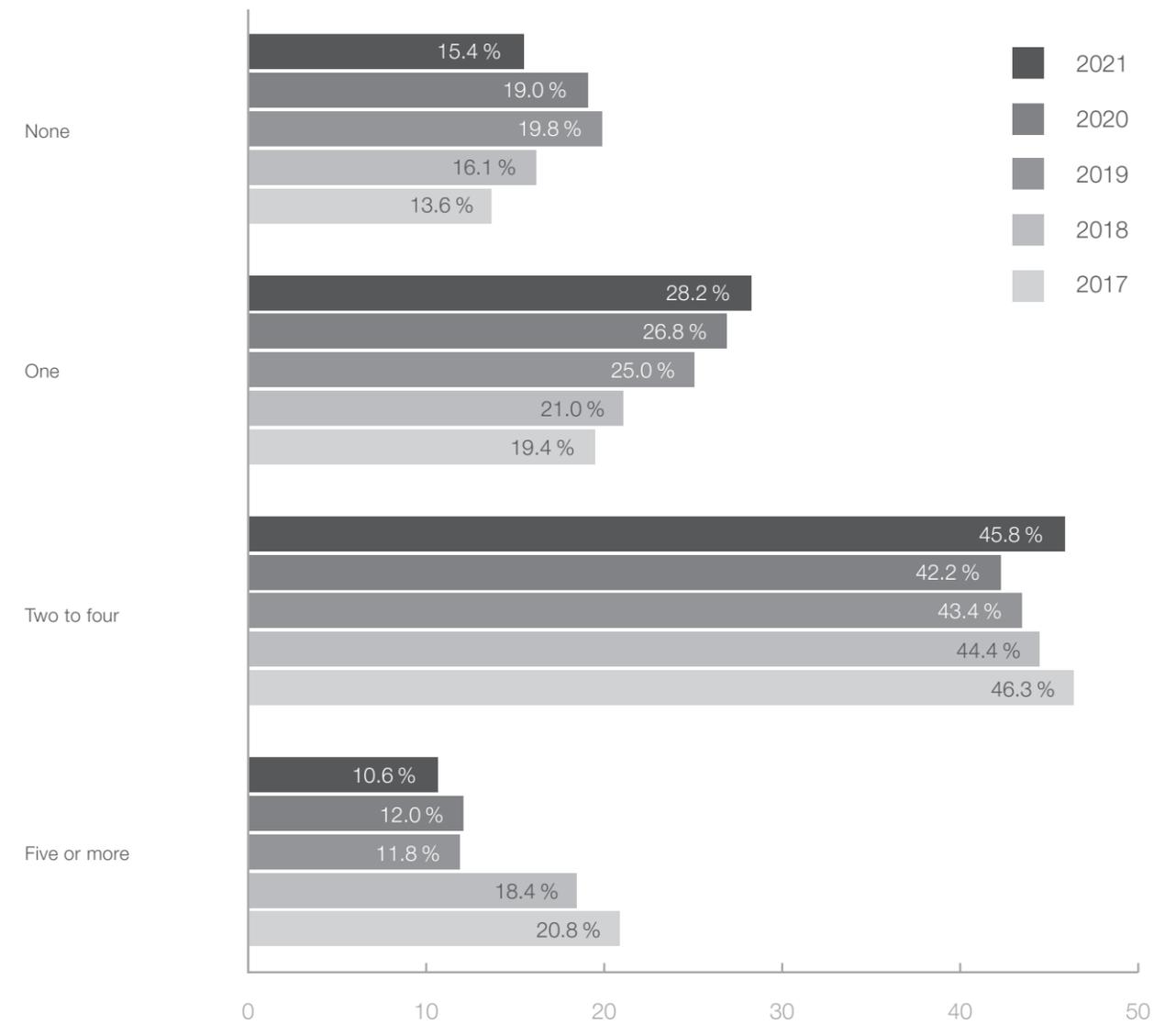
Source: ABDA – Federal Union of German Associations of Pharmacists

Planned investments at pharmacies in the next two to three years



Source: Pharmacy climate index 2021 (marpinion GmbH)

Owners' estimates of how many interested parties could be expected in the event of them selling their pharmacy

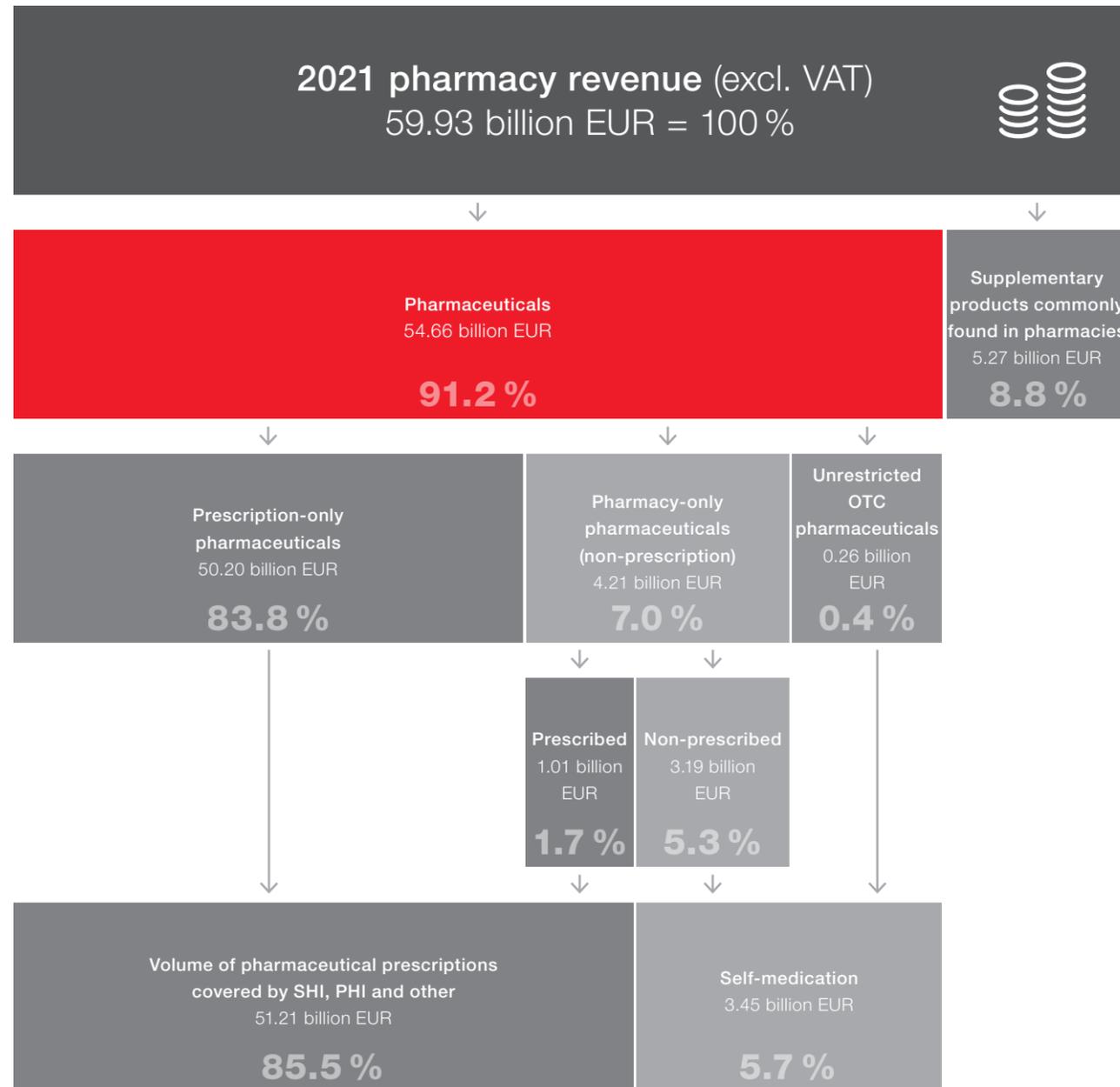


Source: Pharmacy climate index 2021 (marpinion GmbH)

REVENUE STRUCTURE AND DISPENSED PACKAGES

91 % of the revenue of pharmacies comes from the dispensing of medications, with the rest attributable to the supplementary products commonly found in pharmacies. Around 84 % of revenue comes from prescription medications prescribed by doctors.

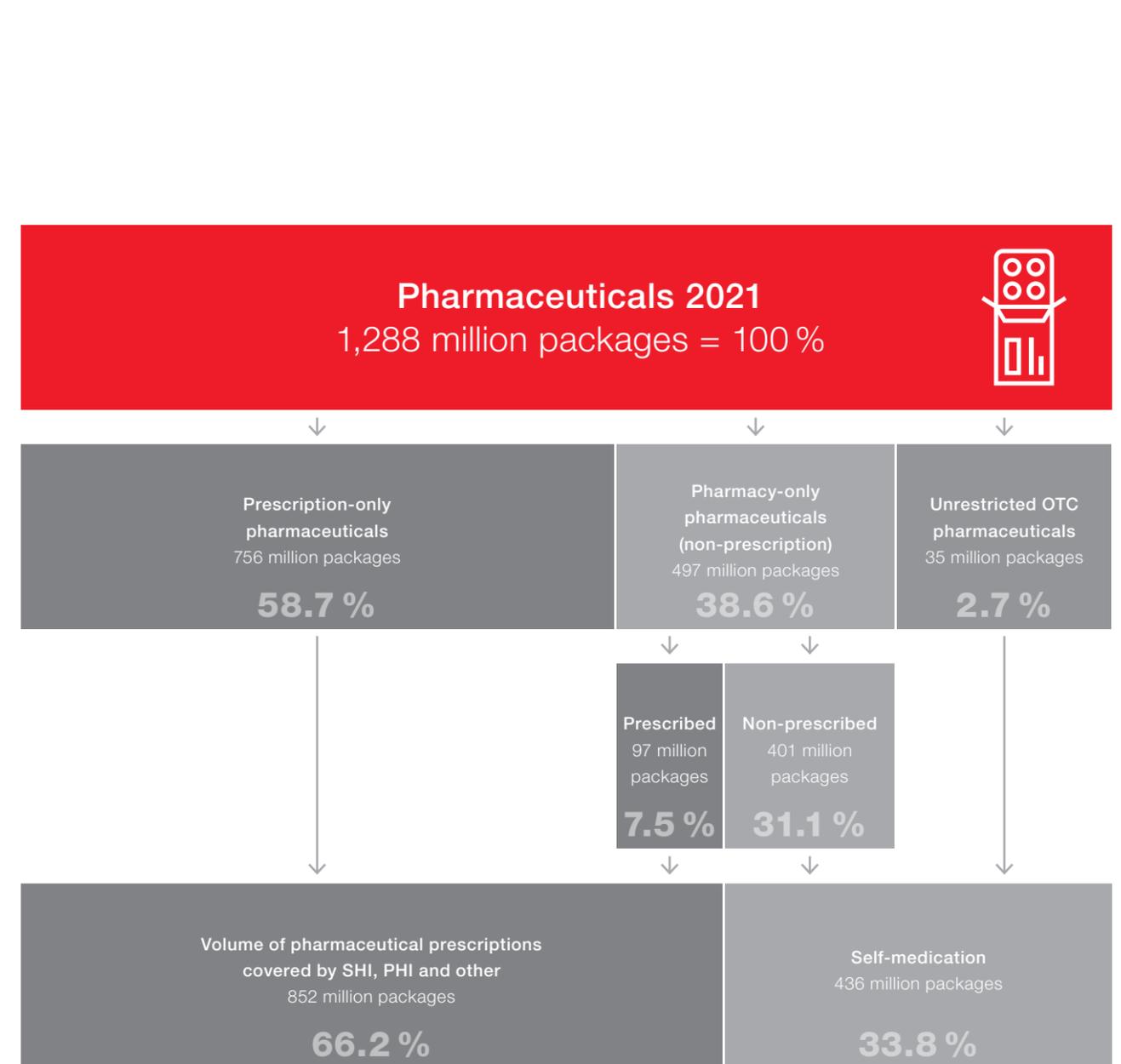
MEASURED IN SALES FIGURES



Note: Special services provided in the context of the COVID-19 pandemic and billed to the Federal Office for Social Security (BAS) are not included here. This includes the supply of COVID-19 vaccines and face masks, the issuing of certificates and citizen testing. The total volume of these special benefits is estimated at 2.5 billion EUR.

Source: Insight Health GmbH & Co. KG, ABDA statistics

MEASURED IN NUMBERS OF PACKAGES



Note: Special services provided in the context of the COVID-19 pandemic and billed to the Federal Office for Social Security (BAS) are not included here. This includes the supply of COVID-19 vaccines and face masks, the issuing of certificates and citizen testing.

Source: Insight Health GmbH & Co. KG, ABDA statistics

Revenue und sales volume

in billion EUR 	2019	2020	2021
Pharmacy revenue (excl. VAT)	54.35	56.79	59.93
Prescription-only pharmaceuticals	44.47	47.24	50.20
Pharmacy-only pharmaceuticals (non-prescription)	4.63	4.23	4.21
Prescribed	1.14	1.03	1.01
Non-prescribed	3.49	3.20	3.19
Unrestricted OTC pharmaceuticals	0.27	0.29	0.26
Volume of pharmaceutical prescriptions covered by SHI, PHI and other	45.61	48.27	51.21
Self-medication	3.77	3.49	3.45
Supplementary products commonly found in pharmacies	4.96	5.03	5.27

in millions of packages 	2019	2020	2021
Pharmaceuticals	1,377	1,297	1,288
Prescription-only pharmaceuticals	762	750	756
Pharmacy-only pharmaceuticals (non-prescription)	576	507	497
Prescribed	118	100	97
Non-prescribed	458	407	401
Unrestricted OTC pharmaceuticals	39	40	35
Volume of pharmaceutical prescriptions covered by SHI, PHI and other	880	850	852
Self-medication	497	447	436

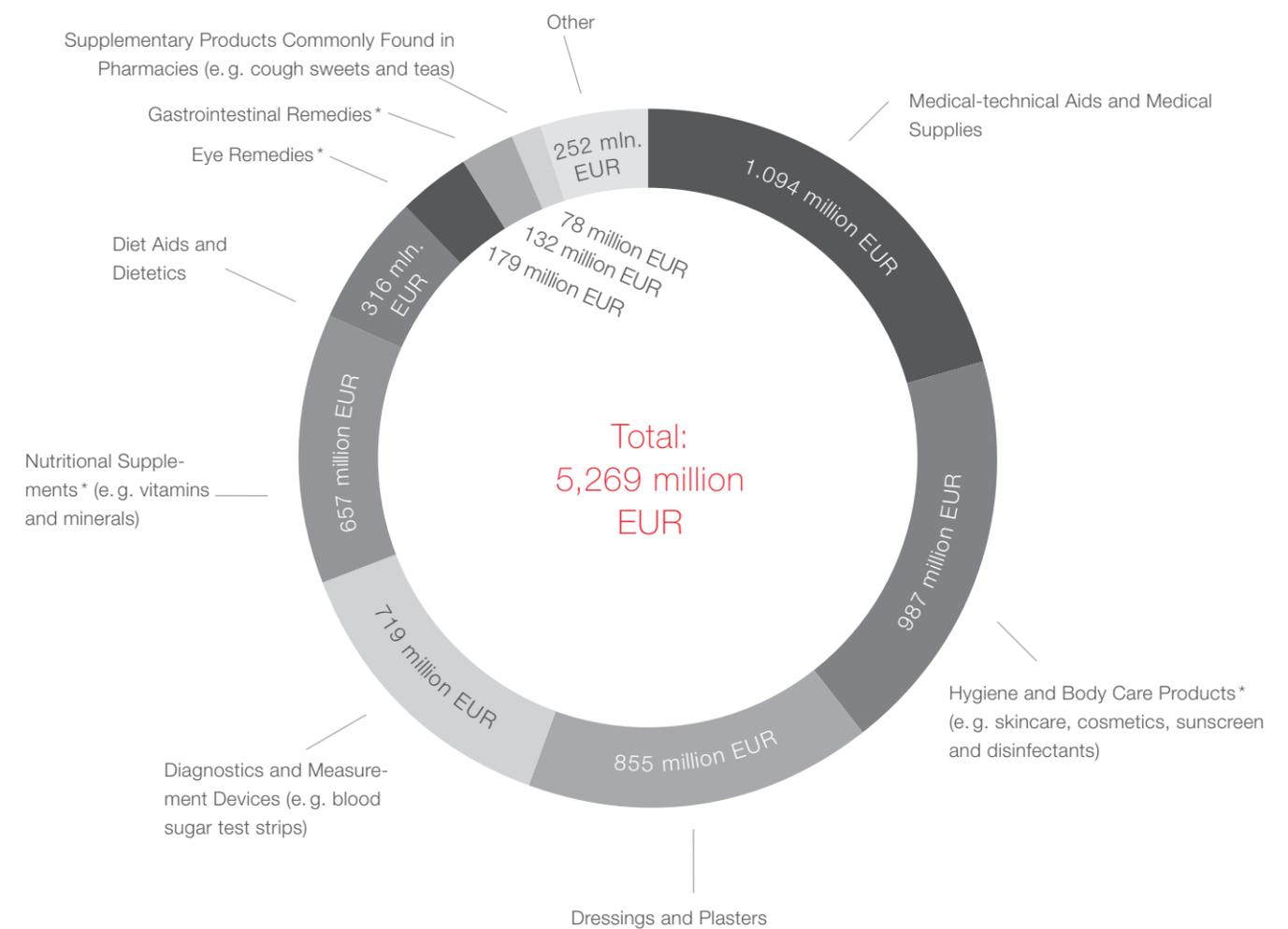
Note:
Special services provided in the context of the COVID-19 pandemic and billed to the Federal Office for Social Security (BAS) are not included here. This includes the supply of COVID-19 vaccines and face masks, the issuing of certificates and citizen testing.

Source: Insight Health GmbH & Co. KG, ABDA statistics

SUPPLEMENTARY PRODUCTS COMMONLY FOUND IN PHARMACIES

The supplementary range includes all non-pharmaceutical products dispensed and sold in the pharmacy. These can include certain medical aids, blood sugar test strips, food supplements, vitamins and minerals as well as cosmetics and sunscreen. They account for 8.8 % of total revenue.

2021 revenue (excl. VAT)



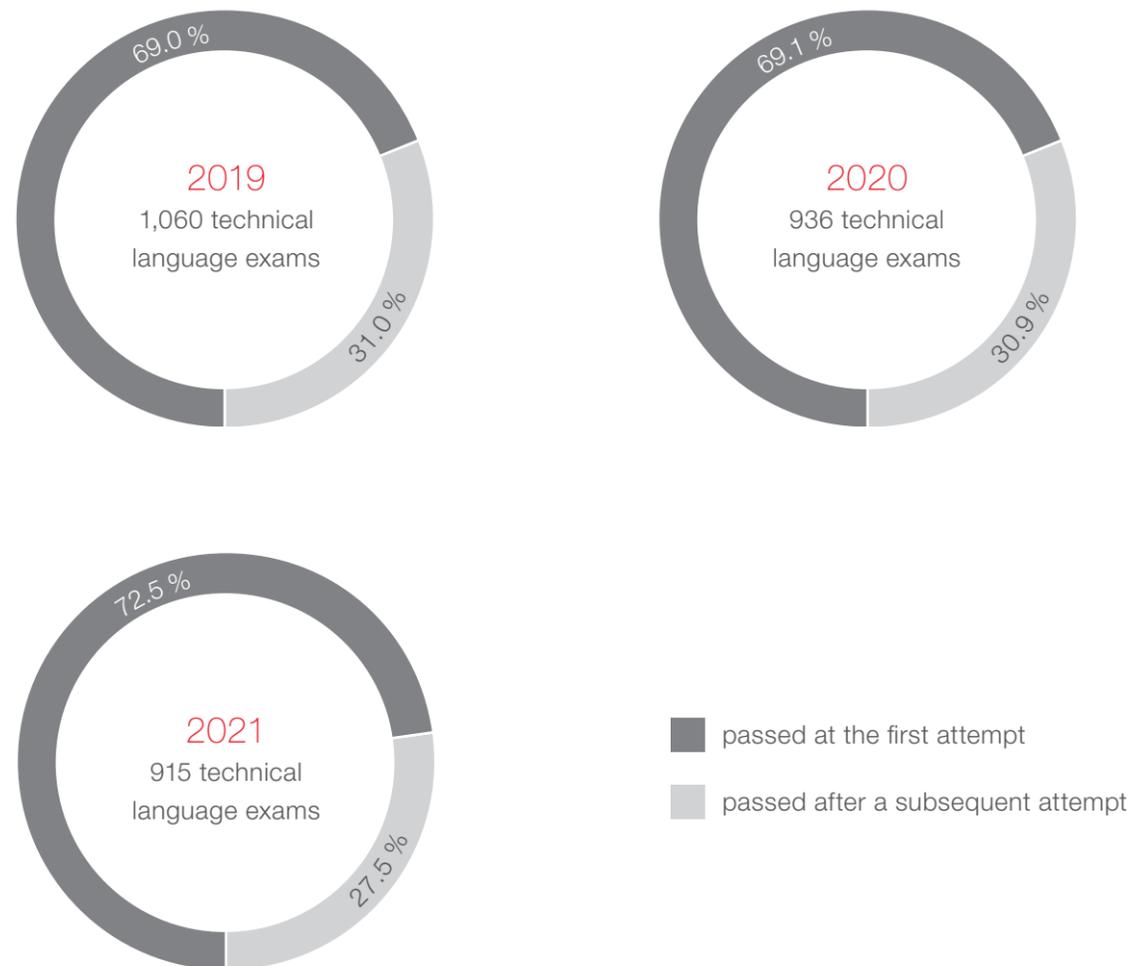
* unless classified as pharmaceuticals

Source: Insight Health GmbH & Co. KG

TECHNICAL LANGUAGE EXAMS FOR FOREIGN PHARMACISTS

There is also labour migration in the area of pharmaceutical supply. Pharmacists who do not speak German natively and apply for pharmacists licences in Germany must have knowledge of German colloquial and technical language. Based on the Common European Framework of Reference for Languages (CEFR), they must demonstrate technical language skills in a three-part examination. Almost all regional chambers of pharmacists have been commissioned by their state authority to conduct the specialist language examination.

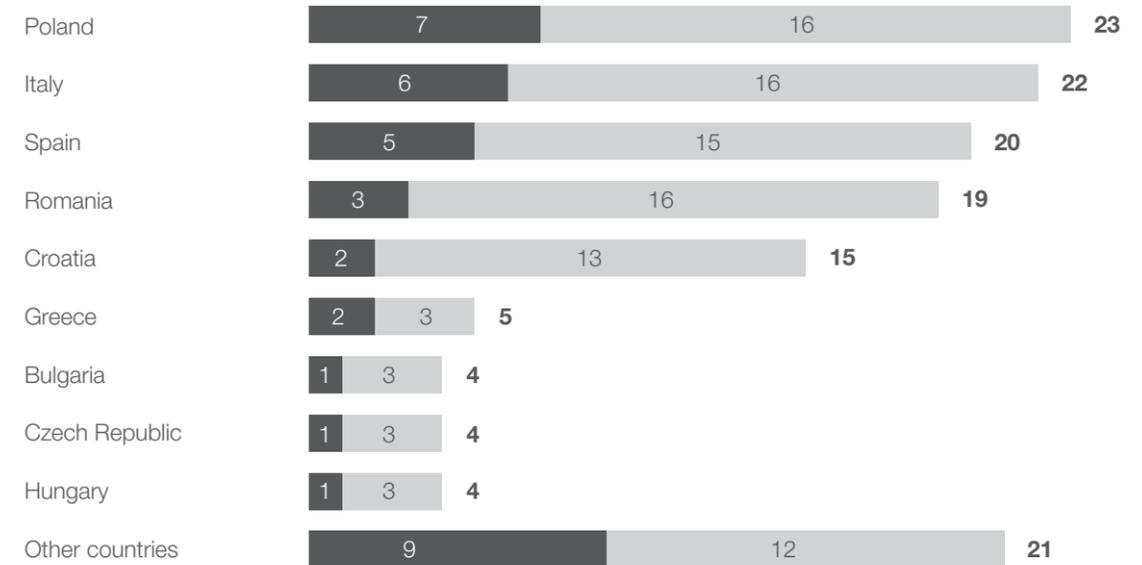
Number of exams and pass rate



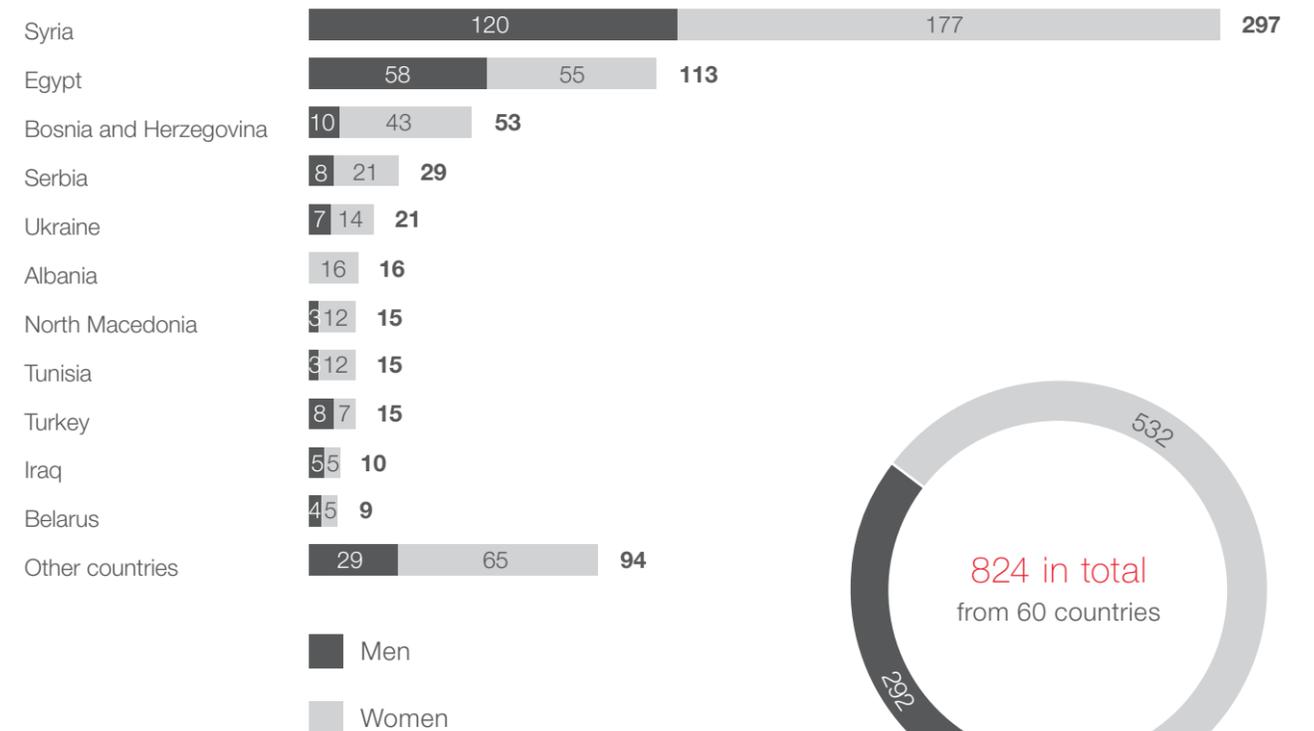
Source: Federal Chamber of Pharmacists (BAK)

Number of examination candidates, gender balance and countries of origin 2021

Other European countries (EU, EEA, Switzerland)



Third countries



Source: Federal Chamber of Pharmacists (BAK)



PHARMACY-RELATED LEGAL REGULATIONS IN EUROPE

The healthcare systems across the European Union are organised in different ways. Accordingly, the regulatory rules for the supply of medicines also differ from one member state to another. Only a minority of states allow mail-order sales of prescription medicines, and some allow third-party ownership of pharmacies (by non-pharmacists and corporations).

Mail-order ban for prescription-only pharmaceuticals

- Yes
- No
- No information



Ban on third-party ownership

- Yes
- No
- No information



Source: Pharmaceutical Group of the European Union (PGEU), World Health Organisation (WHO)

Country	Rx mail order trade ban	Ban on third-party ownership
Belgium	✓	×
Bulgaria	✓	×
Denmark	×	✓
Germany	×	✓
Estonia	×	✓
Finland	×	✓
France	✓	✓
Greece	✓	×
Ireland	✓	×
Italy	✓	×
Croatia	✓	×
Latvia	✓	×
Lithuania	N/A	×
Luxembourg	✓	✓
Malta	×	×
Netherlands	×	×
Austria	✓	✓
Poland	✓	✓
Portugal	✓	×
Romania	✓	×
Sweden	×	×
Slovakia	✓	×
Slovenia	✓	✓
Spain	✓	✓
Czech Republic	✓	×
Hungary	✓	✓
Cyprus	✓	✓

Source: Pharmaceutical Group of the European Union (PGEU), World Health Organisation (WHO)

PHARMACY DENSITY ACROSS EUROPE

With 22 pharmacies per 100,000 inhabitants, Germany is in the bottom third of the European comparison table. On average, the 27 EU member states have 32 pharmacies per 100,000 inhabitants.

	Pharmacies per 100,000 inhabitants	Number of community pharmacies*
Greece	97	10,346
Cyprus	63	563
Lithuania	47	1,317
Spain	47	22,137
Malta	46	210
Bulgaria	45	3,143
Latvia	43	829
Belgium	41	4,747
Romania	40	7,697
Ireland	38	1,911
Estonia	36	475
Poland	35	13,395
Italy	33	19,669
EU	32	approx. 142,000
France**	32	20,534
Slovakia	31	1,706
Portugal	28	2,920
Croatia	27	1,096
Hungary	24	2,297
Czech Republic	22	2,369
Germany	22	18,461
Slovenia	16	347
Austria	16	1,404
Luxembourg	16	98
Finland	15	819
Sweden	14	1,411
Netherlands	11	1,996
Denmark	9	512

* last available year
 ** France métropolitaine (excl. overseas territories)

Source: ABDA statistics, Pharmaceutical Group of the European Union (PGEU), national pharmacists' associations, European Commission (EC)

Development of pharmacy density in Germany and its neighbouring countries (pharmacies per 100,000 inhabitants)

Country	2004	2008	2012	2016	2020
Belgium	50	49	45	43	41
France*	37	36	35	33	32
Poland	N/A	28	N/A	36	35
Germany	26	26	26	24	23
Czech Republic	22	23	24	24	22
Switzerland	23	22	22	21	21
Austria	14	15	15	16	16
Luxembourg	N/A	18	18	16	16
Netherlands	11	12	12	12	12
Denmark	6	6	6	7	9

* France métropolitaine (excl. overseas territories)

Source: ABDA statistics, Pharmaceutical Group of the European Union (PGEU), national pharmacists' associations, European Commission (EC)

VALUE-ADDED TAX ON PHARMACEUTICALS

Value-added tax (VAT) on pharmaceuticals varies greatly between the various 27 EU member states. Germany has one of the highest VAT rates, exceeded only by Denmark and Belgium. In contrast, Malta, Ireland and Sweden have completely exempted some medications from VAT.

		Tax on pharmaceuticals in 2021	General VAT rate 2021
Denmark		25.0	25.0
Bulgaria		20.0	20.0
Germany		19.0	19.0
Latvia		12.0	21.0
Finland		10.0	24.0
Italy		10.0	22.0
Czech Republic		10.0	21.0
Austria		10.0	20.0
Slovakia		10.0	20.0
Slovenia		9.5	22.0
Netherlands		9.0	21.0
Estonia		9.0	20.0
Romania		9.0	19.0
Poland		8.0	23.0
Greece		6.0	24.0
Portugal		6.0	23.0
Belgium		6.0	21.0
Hungary		5.0	27.0
Croatia	pharmaceuticals covered by SHI; non-prescription pharmaceuticals	5.0 25.0	25.0
Lithuania	reimbursable pharmaceuticals; non-reimbursable pharmaceuticals;	5.0 21.0	21.0
Cyprus		5.0	19.0
Spain		4.0	21.0
Luxembourg		3.0	17.0
France	reimbursable pharmaceuticals; non-reimbursable pharmaceuticals;	2.1 10.0	20.0
Sweden	prescription-only pharmaceuticals; non-prescription pharmaceuticals	0.0 25.0	25.0
Ireland	pharmaceuticals for oral use; pharmaceuticals for non-oral use;	0.0 23.0	23.0
Malta		0.0	18.0

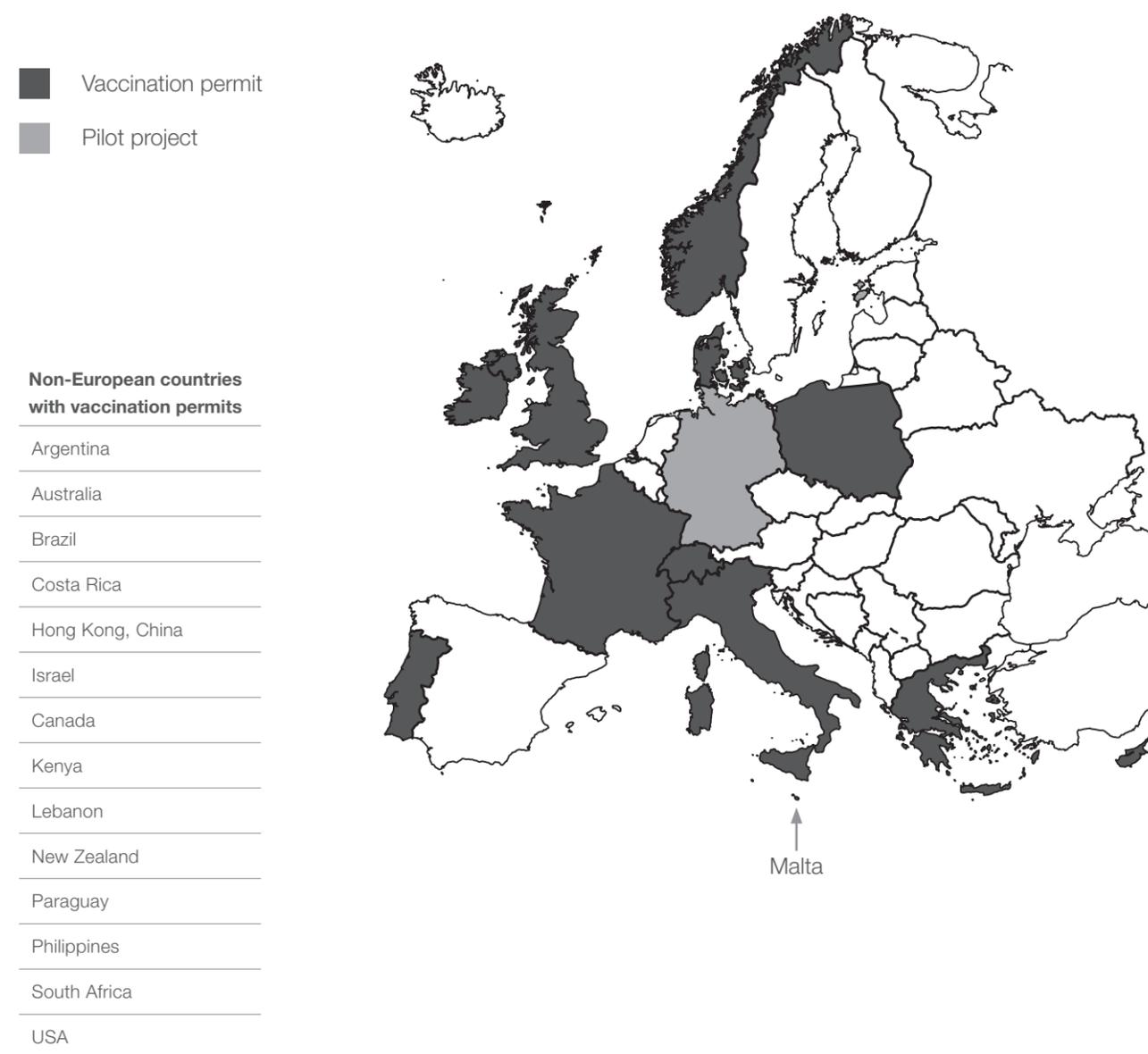
The European Commission's publication for 2022 was not available before the editorial deadline.

Source: European Commission (EC)

COMPARISON BY COUNTRY: VACCINATIONS IN PHARMACIES

Pharmacists are allowed to vaccinate against influenza in pharmacies in at least 25 countries worldwide, including France, the UK and the USA. The aim is to increase the vaccination rate and ensure basic health care in regions with weak health infrastructure. In Germany, pilot projects for flu vaccination in pharmacies have been permitted since 1 March 2020. During the COVID-19 pandemic, several countries also successively included community pharmacies in their COVID-19 vaccination programmes, usually after prior qualification and provision of the appropriate equipment.

Countries where pharmacists are allowed to vaccinate against influenza (flu) in community pharmacies



Note: In Switzerland, 21 of the 26 cantons have vaccination permits.

Source: Pharmaceutical Group of the European Union (PGEU), International Pharmaceutical Federation (FIP), ABDA

LEGAL INFORMATION

Countries where pharmacists are allowed to vaccinate against **COVID-19** in community pharmacies



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ABDA – Federal Union of
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 Heidestraße 7
 10557 Berlin, Germany
www.abda.de

Design

Cyrano Kommunikation GmbH
 Hohenzollernring 49–51
 48145 Münster, Germany



Federal Union of
German Associations of Pharmacists