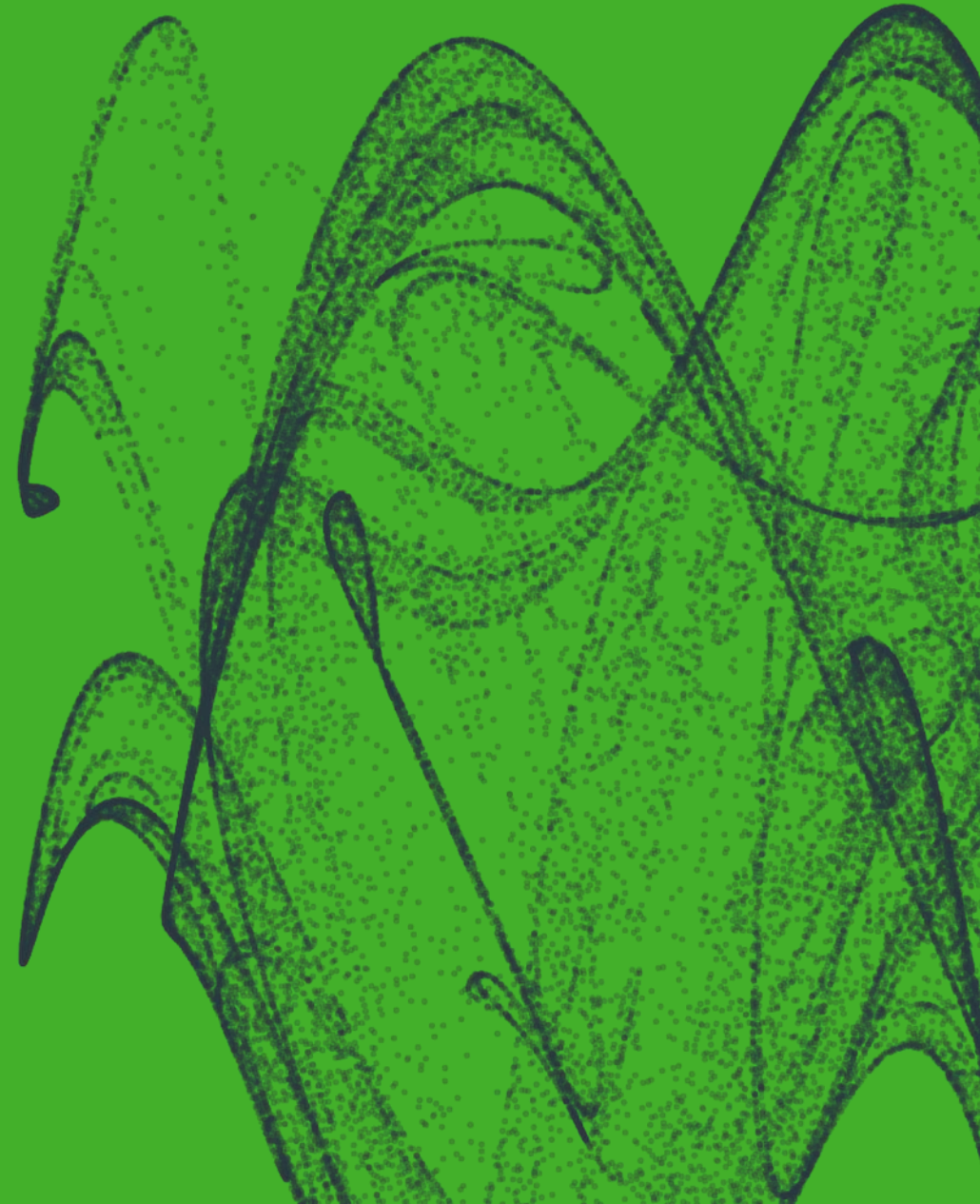




# **IQVIA Life Sciences Innovation Forum**

**Set-up Slides: Addressing Unmet Healthcare  
Needs**

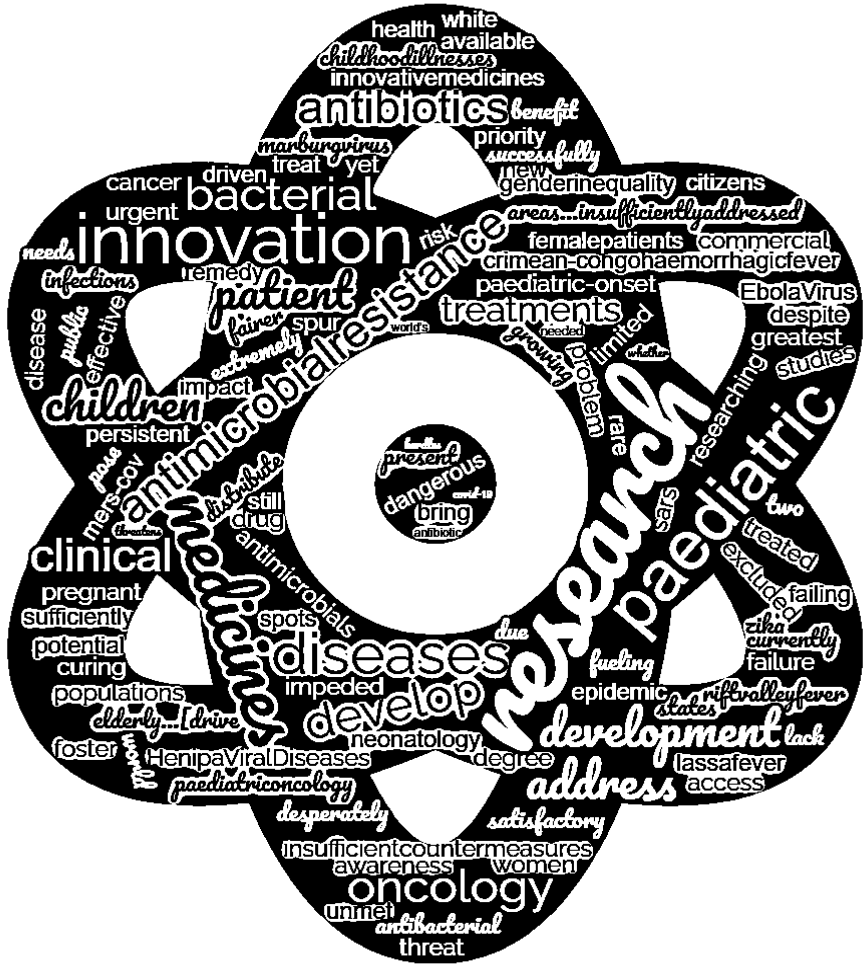
**September 12, 2022**





# Perceptions of global unmet healthcare need focus on infectious diseases, female and pediatric populations, and scientific bottlenecks

Member states should “foster R&D [in] areas...insufficiently addressed by commercial research (e.g. AMR [antimicrobial resistance] and [for] patient **populations normally excluded by clinical studies, such as children, pregnant women and the elderly**...[drive] innovation in medicines for children [in] oncology and neonatology” [and for] curing childhood illnesses”... [and spur] “research into medicines for female patients, to remedy gender inequality in research and development and to allow all citizens to benefit from fairer access to medicines” and “**diseases, such as cancer, that cannot yet be treated to a satisfactory degree**” – European Parliament



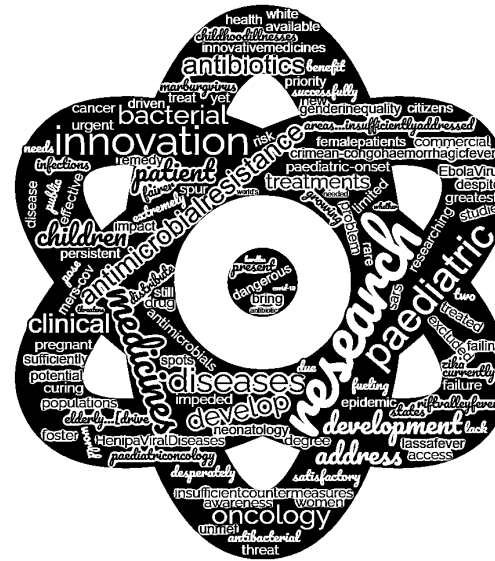




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Member states should “foster R&D [in] areas...insufficiently addressed by commercial research (e.g. AMR [antimicrobial resistance] and [for] patient **populations normally excluded by clinical studies, such as children, pregnant women and the elderly**...[drive] innovation in medicines for children [in] oncology and neonatology” [and for] **curing childhood illnesses**”... [and spur] “research into **medicines for female patients**, to remedy gender inequality in research and development and to allow all citizens to benefit from fairer access to medicines” and “**diseases, such as cancer, that cannot yet be treated to a satisfactory degree**” – European Parliament

“Recent reports showed that in 2017, **approximately 2/3 of all deaths included opioids**. We learned that antibiotic resistant bacteria and fungi cause more than 2.8 million infections and 35,000 deaths in the U.S. each year. Additionally... **nearly two thirds of pregnant women in the U.S. have not received the two recommended vaccines for influenza and whooping cough** during pregnancy...[and] CDC estimated that **92% of cancers caused by HPV could be prevented by the HPV vaccine**” CDC, Nine Health Threats that Made Headlines in 2019

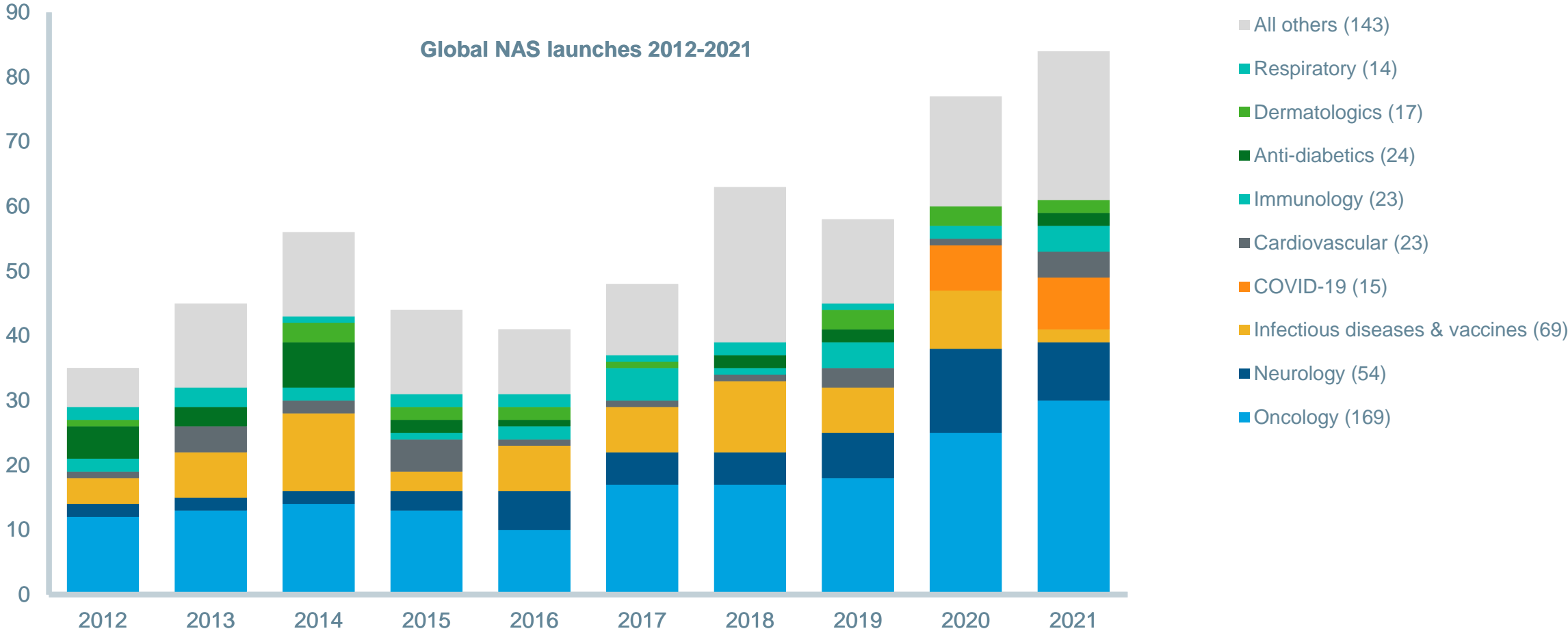


“Lack of proper or systematic funding is particularly apparent in niche areas of UMN, i.e. **rare or neglected tropical diseases**, where return of investment is low and many priority research gaps still exist...UMN can be found in a plethora of non-orphan and non-neglected disease categories, where funding is not the main reason for stagnation, but it is the **scientific bottlenecks** who are the main contributors to underperformance. **Alzheimer's disease, dementia, cardiovascular disease, chronic pain conditions, osteoporosis**, are but a few examples of **areas with little progress despite relatively generous funding**.– Z. Kusynova et al., International Pharmaceutical Federation (FIP) and Utrecht University, the Netherlands

“hurdles ... have impeded innovation in two ‘white spots’ where limited treatments are available: **extremely rare** diseases and **paediatric-onset** diseases” - EFPIA

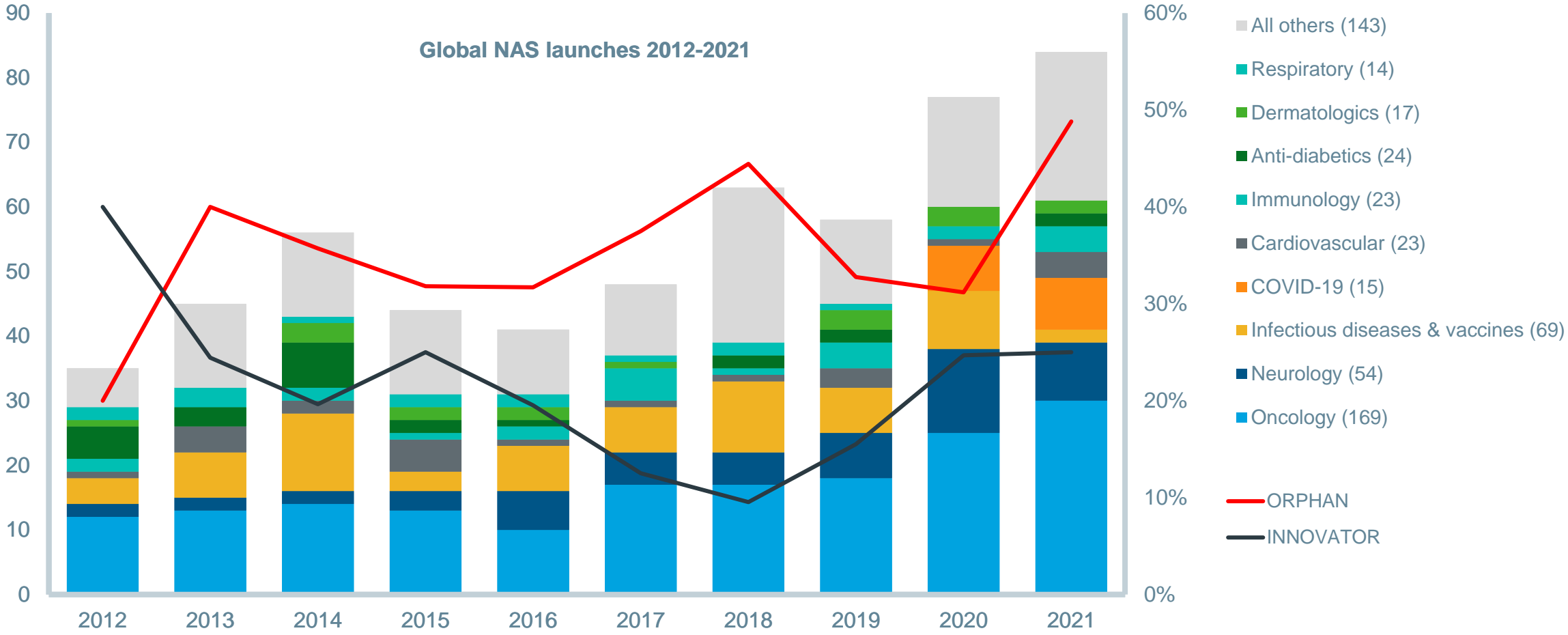
“**Diseases [that] pose the greatest public health risk due to their epidemic potential...or insufficient countermeasures** are: COVID-19, Crimean-Congo haemorrhagic fever, Ebola virus disease and Marburg virus disease, Lassa fever, Middle East respiratory syndrome coronavirus (MERS-CoV) and Severe Acute Respiratory Syndrome (SARS), Nipah and henipaviral diseases, Rift Valley fever, Zika, “**Disease X**”\* - WHO

# Novel active substances (NASs) have seen growth in Orphan/rare disease therapies and a refocusing on new frontiers and innovative therapies



Source: IQVIA Institute, Jan 2022.  
 Global Trends in R&D: Overview through 2021. Report by the IQVIA Institute for Human Data Science.

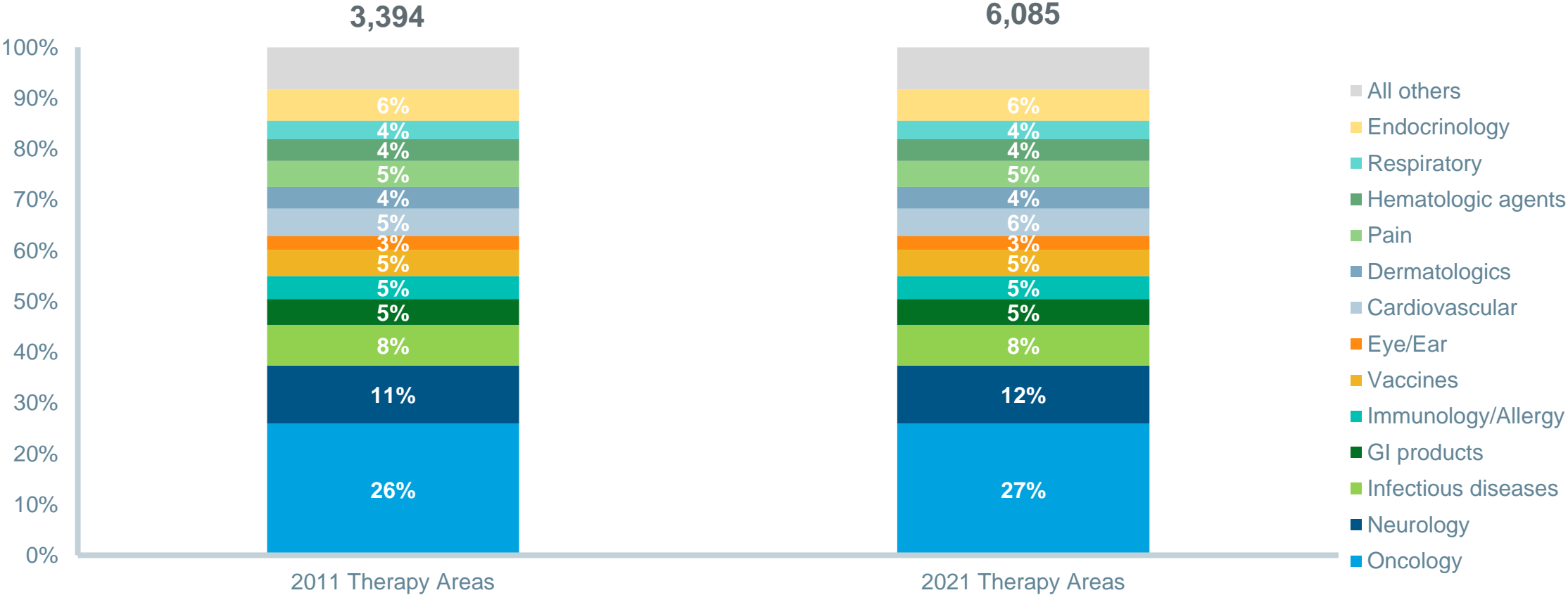
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Source: IQVIA Institute, Jan 2022. Global Trends in R&D: Overview through 2021. Report by the IQVIA Institute for Human Data Science.



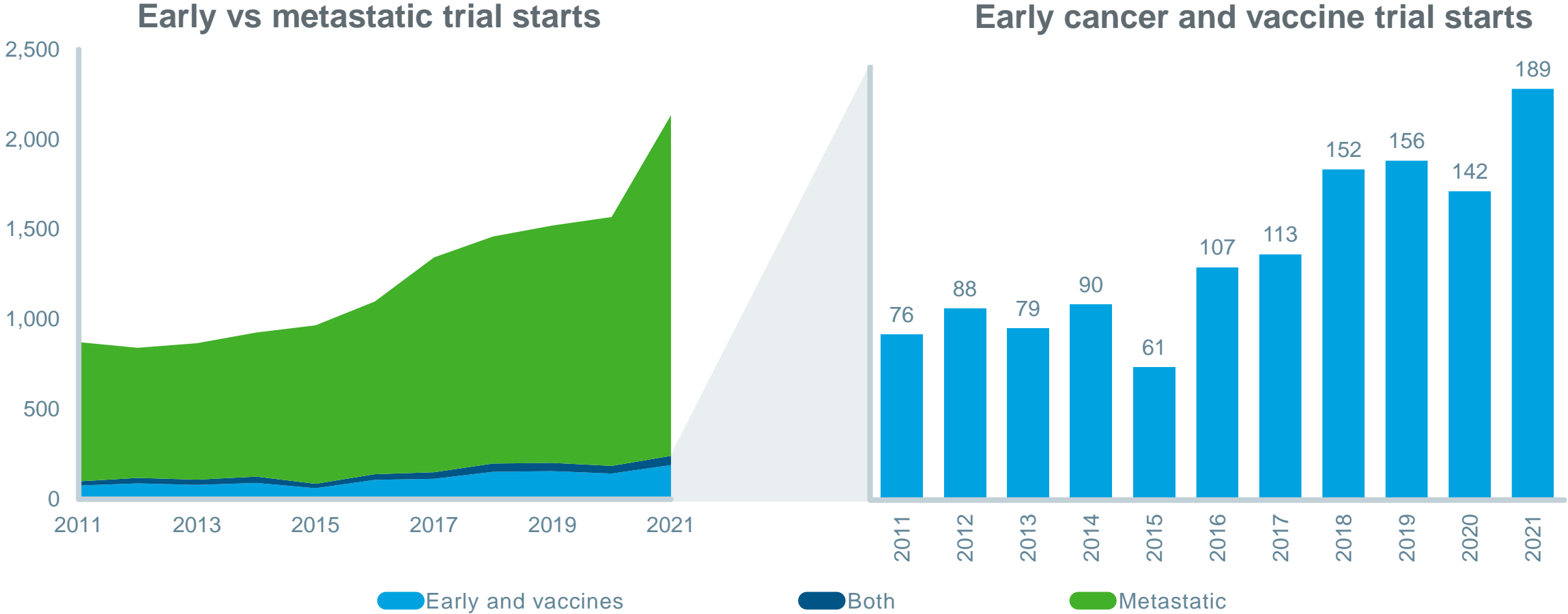
# The number of pipeline products Phase I to regulatory submission has grown, 2011–2021 but with little shift in therapeutic area focus



Source: IQVIA Pipeline Intelligence, Dec 2021; IQVIA Institute, Jan 2022. Global Trends in R&D: Overview through 2021. Report by the IQVIA Institute for Human Data Science.

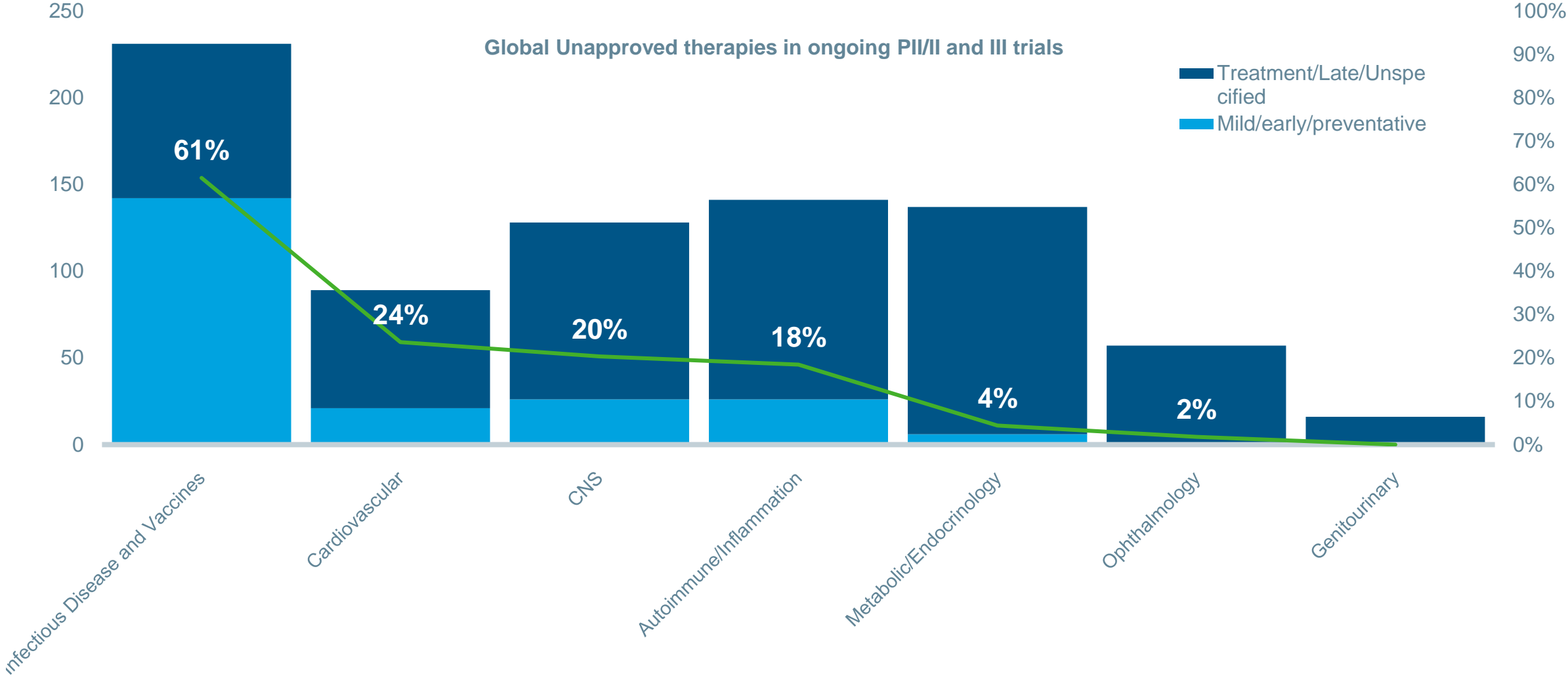
# Cancer trials focus on metastatic or advanced cancers but trials for early cancer and vaccines have more than doubled in 10 years

*Oncology trial starts by the targeted stage of disease*



Source: Citeline Trialtrove, IQVIA Institute, Apr 2022.  
Global Oncology Trends 2022: Outlook to 2026. Report by the IQVIA Institute for Human Data Science

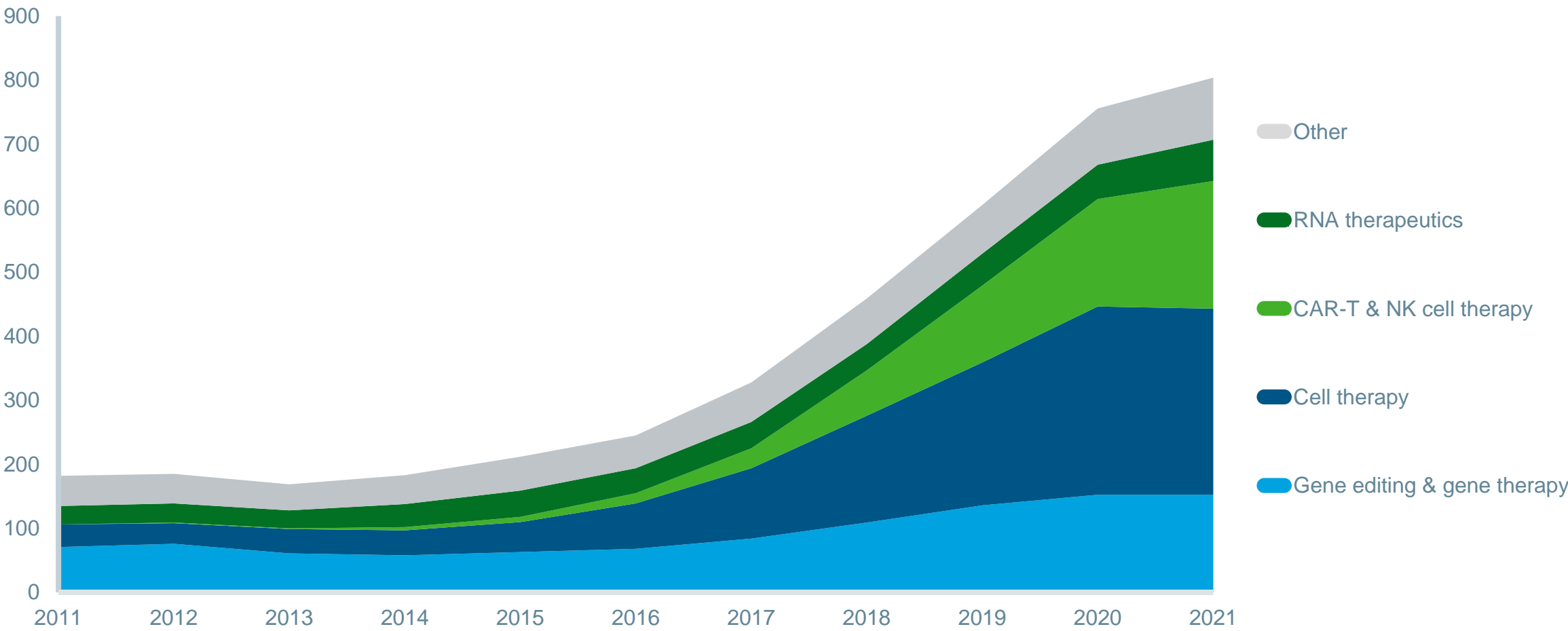
# About one fifth of all trials for novel therapies are focused on early intervention, disease modification or prevention in some disease areas



Source: Trialrove, Aug 16

# The next-generation biotherapeutic pipeline is focused on gene editing, CAR-T and other cell therapies

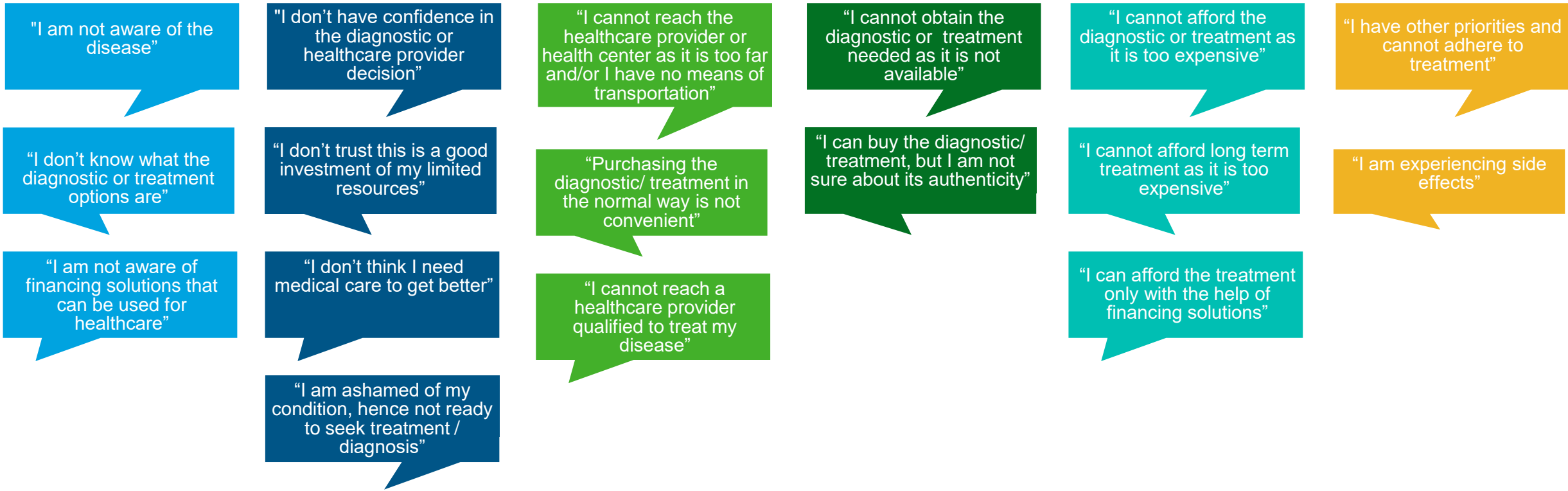
Next-generation biotherapeutics Phase I to regulatory submission pipeline by mechanism, 2011-2021



Source: IQVIA Pipeline Intelligence, Dec 2021; IQVIA Institute, Jan 2022. Global Trends in R&D: Overview through 2021. Report by the IQVIA Institute for Human Data Science.

# Socioeconomic and educational barriers to access can help health systems derive more value from medicines, but these are challenging for Life Science Companies to influence

**Awareness** → **Acceptance** → **Accessibility** → **Availability** → **Affordability** → **Adherence**

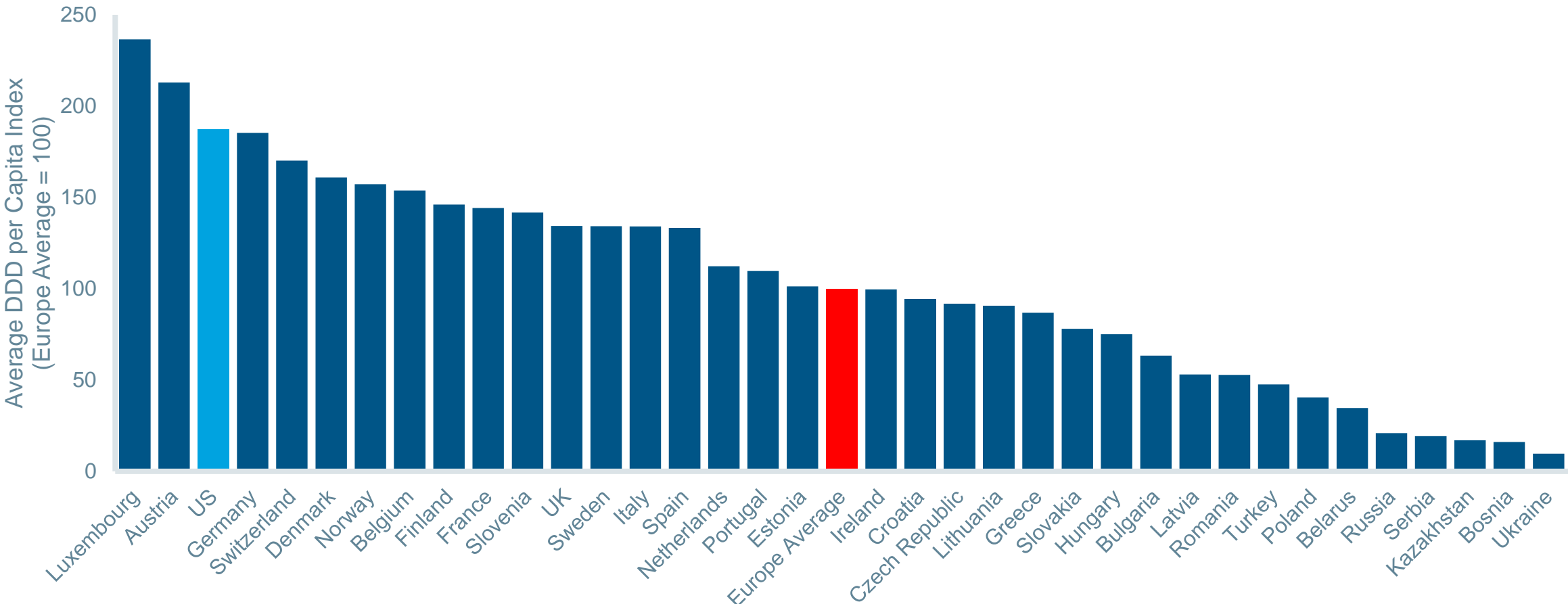


Source: Hystra and IQVIA analysis; Dec 2021

Notes: Pain points noted here are illustrative rather than exhaustive.

# Across essential innovative medicine groups there are significant differences in per capita use

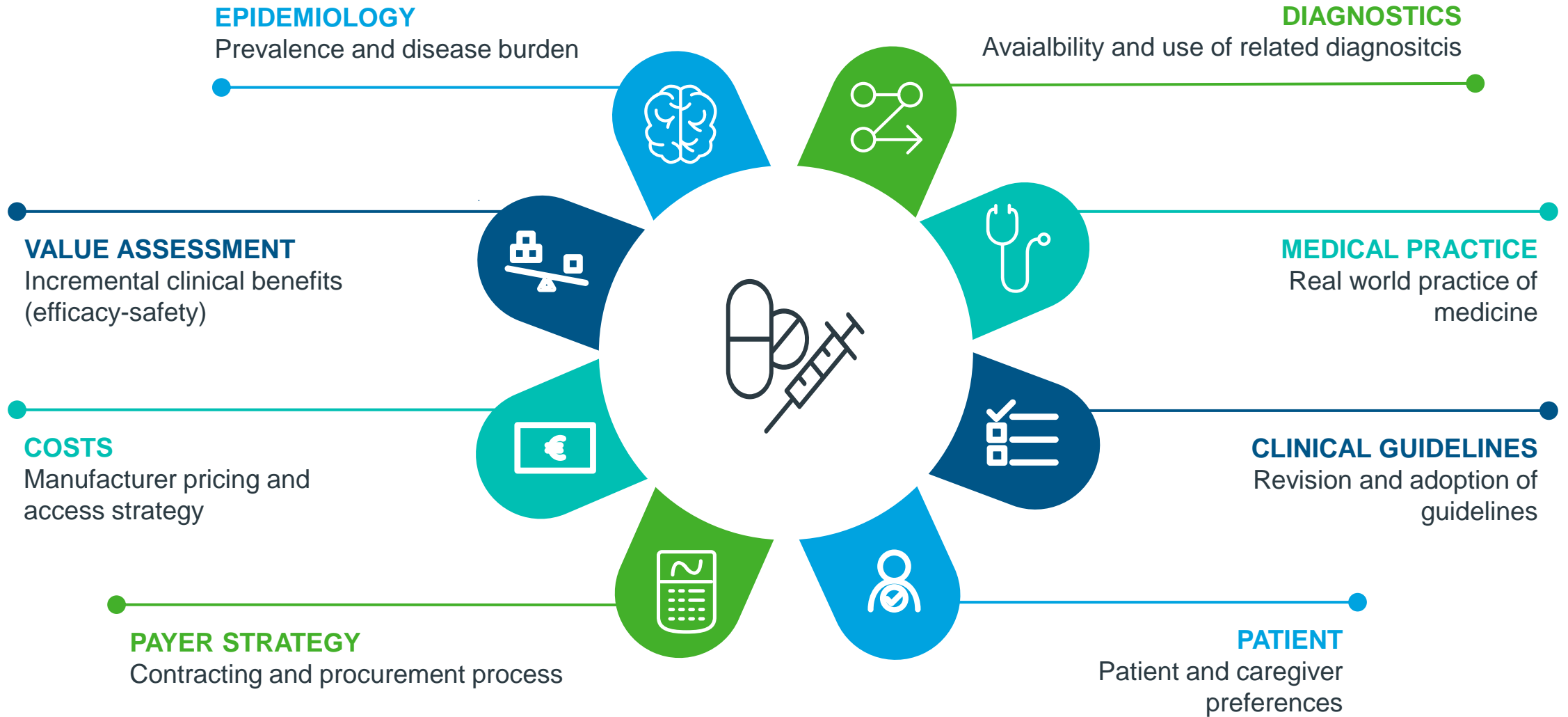
Average Utilization of Essential Innovative Medicines Across All Groups, Europe Average=100



Note: European average excludes null values for non-covered non-retail in select classes  
Source: IQVIA MIDAS, Dec 2021; IQVIA Institute, Aug 2022

# Multiple underlying drivers of differences in use of Essential Innovative Medicines require further research

NON-EXHAUSTIVE



# Addressing Unmet Healthcare Needs

*Areas for discussion*

## Balancing Disease and Innovation Priorities

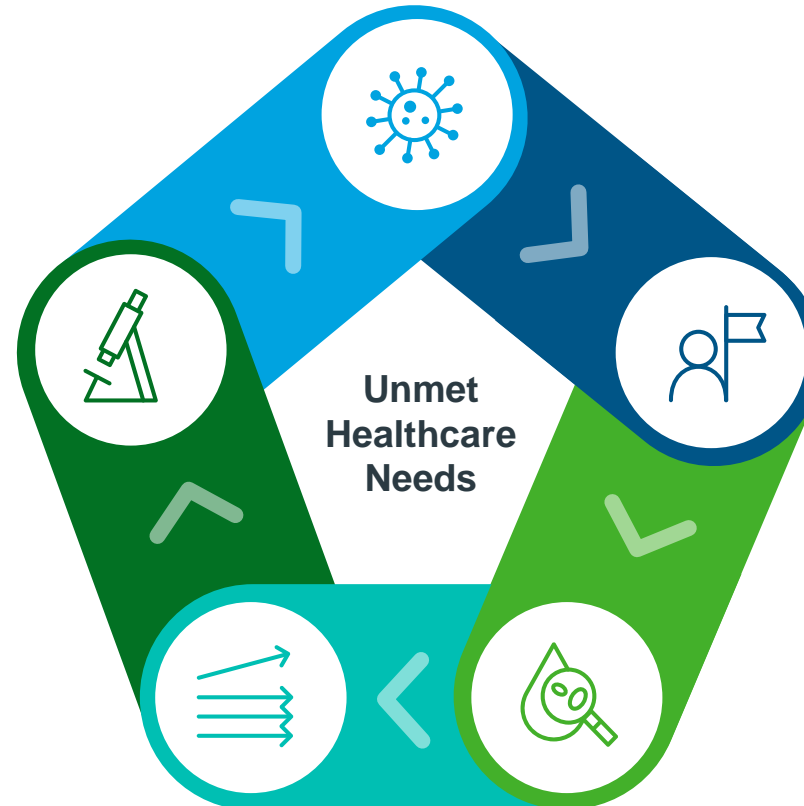
How can stakeholders balance patient and population interests between rare and common diseases, and between incremental and breakthrough innovations?

## Identifying New Pathways

How can research efforts move “upstream” to identify new disease and molecular pathways and focus on disease prevention or early interception?

## Assessing Innovation Needs

How should unmet needs for biomedical innovation be identified and prioritized by stakeholders?



## Access to Innovation

How to balance stakeholder interests in providing patient access to innovative therapeutics?

## The Promise of “Curative” Therapies

What can we expect from so-called “curative” therapies, such as, cell and gene therapies, and what commercialization and access models are required to ensure sustainability of ultra-high-cost therapies for small patient populations?