Paying for Health

Learning from International Experience in Health Financing

EXECUTIVE SUMMARY

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Executive summary

What is health financing, and why does it matter?

Health financing is a core component of a well-functioning health system and key to countries' progress towards universal health coverage (UHC). Furthermore, it plays a central role in shaping the health system and influencing its performance. It is therefore a critical topic for study by health policy-makers, especially those seeking to introduce and enhance UHC in their country.

Health financing encompasses the flow of money through the health system: from the collection and pooling of prepaid funds, to the allocation of money to health care providers. And yet there is more to health financing than simply raising and spending money. The aim of health financing is to ensure that resources are allocated effectively such that individuals and communities can receive the health care services they need. It is a key determinant of the supply of health services and the performance of the health system, profoundly influencing the extent to which a health system protects people from financial hardship when using health services, as well as the overall effectiveness, safety, people-centredness and quality of health care services.

How is the full volume structured?

The full volume brings together insights from more than 50 contributors worldwide, exploring various aspects of health and long-term care financing. Beyond just serving as an update to the seminal 2002 volume on health financing, *Funding health care: options for Europe*,[1] the book covers a broader array of topics than its predecessor and includes case studies from around the world. The content is organized into three sections, aligned with the fundamental functions of health financing: revenue raising, pooling resources and defining benefits, and commissioning and purchasing goods and services. Within each of these broad sections, individual chapters scrutinize specific policy relevant topics. Below we provide key learnings from each chapter.

What is covered in the full volume: Revenue raising

The focus of this first section is on the ways that funds are generated for the health system. Revenue raising is a crucial component of health financing as it determines how much budget is available to pay for health care and how stable or predictable these funds are. This section explores the various sources of funding, and how the mix of funding influences progress towards UHC in terms of financial protection, equity, accessibility and quality. The section comprises four chapters, with the first concentrating on compulsory contributions through taxation and social health insurance (SHI), widely recognized as essential for progress towards UHC. It discusses common challenges when trying to raise funds from public sources, such as having a large informal economy, weak governance mechanisms and the impacts of an ageing population. The subsequent chapters delve into voluntary health insurance (VHI), with the first discussing community-based health insurance (CBHI) – used in some low- and middle-income country settings. The following chapter covers VHI more broadly, acknowledging its positive attributes, like prepayment and risk pooling but highlighting affordability and other challenges that inhibit universal uptake. The final chapter in this section explores official development assistance (ODA) as a revenue source for health systems, making a case for its importance, especially in the context of low- and middle-income countries during the coronavirus

[1] Mossialos E et al. (2002). Funding health care: options for Europe. Buckingham/Philadelphia: Open University Press (https://eurohealthobservatory.who.int/publications/m/funding-health-care-options-for-europe).

disease (COVID-19) pandemic. It examines the workings of ODA and historical involvement by key actors in this area. Key messages from the chapters in this section include:

Chapter 1.1 General taxation and social health insurance

(Ajay Tandon, Christoph Kurowski, David B. Evans)

A key objective of health financing is to redistribute financial resources from the healthy to the sick and from the well-off to the poor. This can be best achieved through compulsory prepayment mechanisms like taxes and social contributions. Key learning includes that:

- A high reliance on public revenue-raising instruments (general taxes and/or SHI) is essential to progress towards UHC.
- Large informal economies and poor governance can make collecting public revenues difficult in low- and middle-income countries.
- Health financing systems have to be able to adapt to:
  - offset challenges to the revenue base such as economic decline, low levels of economic development or a preponderance of informal employment or economic activity; and
  - meet increasing health care demands which grow with rising expectations and population ageing.
- The traditional distinction between health systems that rely on general taxation (Beveridge or National Health System (NHS) systems) and social insurance contributions (Bismarck or SHI systems) has blurred with time.
- Health systems increasingly rely on a diverse mix of revenue-raising instruments to finance health care.
- There is a growing focus on delinking employment from entitlement to services in historically SHI-based systems and on emphasizing general taxation as a complementary source of revenues.

Chapter 1.2 Community-based health insurance

(Lucy Kanya, Manuela De Allegri, Valéry Ridde)

CBHI is a voluntary, self-organized approach to financing health care for groups of individuals in the absence of other forms of health care coverage. CBHI scheme members organize themselves, collect and pool their insurance premiums, and use them to purchase health services for members. Key learning includes that:

- CBHI is not a miracle solution to affordable access to health care:
  - the very poor often do not enrol, and when they do, they tend to use fewer health services;
  - out-of-pocket (OOP) payments are not necessarily reduced.
- Low uptake, poor delivery of promised benefits and challenges around governance undermine the impact of CBHI.
- CBHI does not overcome broader issues, such as a lack of financial resources.
- CBHI might serve as a transitionary mechanism towards UHC and offer some financial protection for the most vulnerable provided that:
  - policy-makers create a supportive political and economic environment;
  - social capital can be mobilized;
  - schemes are institutionalized within the health sector.

Chapter 1.3 Voluntary health insurance
(Anna Sagan, Sarah Thomson)

VHI is paid for privately by or on behalf of individuals and most often provides people with faster access to treatment and greater choice of health care provider. Premiums are not typically based on the policyholder's income but are likely to vary depending on their risk of ill health. Key learning includes that:

- Despite prepayment and risk pooling, VHI has limitations and does not align well with progress towards UHC because:
  - risk pools in VHI schemes are typically much smaller than pools established through statutory schemes, which means there are fewer people to share risk;
  - inequities are created because of the cost of premiums, which may not be affordable or accessible to everyone, including those most in need of financial protection.
- VHI has wider equity implications because it offers those who can afford to pay faster access to, or greater choice of, services (supplementary insurance) or coverage of excluded services or user charges for statutory care (complementary insurance).
- Governments seeking to use VHI to expand coverage typically have to make significant interventions, including through tax subsidies to make premiums more affordable, but this creates market distortions and is inefficient.
- Policy-makers can secure better health system performance by improving access to publicly financed health care than by promoting VHI.

Chapter 1.4 Official development assistance for health
(Azusa Sato)

ODA is provided by governments or multilateral development banks to support economic development in other countries. Key learning includes that:

- ODA is critical to achieving the Sustainable Development Goals in the world's poorest countries.
- Lower-middle and middle-income countries tend to receive more ODA than lower-income countries due to a number of factors, including precedence and project continuity, differences in the ability to borrow and attract higher volumes and extenuating circumstances and differences in capacity to absorb additional funds.
- Multilateral development bank funds are best utilized when they are invested in under resourced areas, such as global or regional public goods, and when they are well-aligned with domestic policies and national goals.
- ODA success (i.e. resources having a meaningful impact on development outcomes) depends on:
  - prioritizing the right long-term development challenges;
  - effective domestic governance and an active role for national-level stakeholders;
  - transparency around ODA activities;
  - continuous assessment, evaluation, learning and improvement.
- ODA and financing institutions must adjust to new challenges such as climate change – moving away from a sector-by-sector approach, addressing trends and emerging themes and delivering innovative and agile financing mechanisms.

What is covered in the full volume: Pooling resources and defining benefits

Pooling involves aggregating prepaid health revenues to be used to purchase services for a defined population, with the primary goal of spreading financial risk. If the ultimate aim of the health system is UHC, a key objective of pooling is to ensure that an individual's financial contribution to the health system is not linked to medical need. Risk pooling exists to different extents globally and is a crucial

determinant of the efficiency, effectiveness and equity of the health system, yet it has received less academic and policy attention compared to other functions in health financing.

Policy decisions on population coverage, services included in a benefits package, and the degree of reliance on user charges are fundamentally linked to pooling. Through five chapters, this section explores variations and elements in risk pool design, such as consolidating pools, addressing funding disparities and the challenges in setting benefits packages. Chapters in this section also discuss the complex issues of disinvestment from certain treatments and designing pooling arrangements for long-term care in the context of changing demographics and family structures. Key messages from the chapters in this section include:

Chapter 2.1 Approaches to risk pooling

(Sophie Witter, Joseph Kutzin, Susan Sparkes)

- Risk pooling refers to the way prepaid funds are combined and then used to provide care for a covered population. Pooling is an often-underappreciated aspect of health financing which shapes the overall health system. Key learning includes that:
- Pooling prepaid funds is central to progressing towards UHC. It bolsters health system efficiency and equitable access to services.
- Pooling maximizes redistributive capacity and allows the health system to align funding with needs and social priorities.
- Having multiple risk pools can be problematic, particularly if:
  - pools have too few people;
  - if everyone in the pool has similar risks; and
  - if there is no redistribution of resources across pools.
- Structuring and managing risk pools well can offset problems associated with fragmentation by:
  - reducing duplication or overlap, making purchasing and service delivery more effective;
  - avoiding disproportionately large financial burdens falling on particular pools; and
  - minimizing risk selection and "cream-skimming", whereby pools try to exclude high-risk (and therefore high-cost) individuals.
- Policy-makers can use a range of pooling strategies to enhance efficiency, equity and access but path dependencies, politics and context matter. Options include:
  - encouraging the integration (i.e. consolidation or merger) or coordination of pooling schemes;
  - boosting funding for less endowed pools;
  - equalization through risk adjustment across pools via direct transfers between schemes;
  - making membership compulsory; or
  - aligning data systems, benefit packages and payment infrastructure across pools.

Chapter 2.2 Setting a health benefits package

(Michael Drummond, Aleksandra Torbica, Jonas Schreyögg)

A benefits package is the range of health care goods and services that people covered by a system or scheme are entitled to or should be able to access. Key learning includes that:

- All health systems have budgetary constraints and set some limits to entitlement, and therefore have some kind of benefits package.
- Benefits packages may be explicitly defined or implicit only, with the latter more common in high-income countries and the former more common in low- and middle-income countries.
- What is included or excluded, and the ways these decisions are made, vary widely but well-

designed benefits packages should address population health needs and ensure the efficient use of health system resources.

- Defining a package of care is complex and often highly sensitive – using evidence and economic evaluation to determine what to include (or exclude) supports efficiency and equity and allows policy-makers to explain and defend their choices.
- There are a range of evidence-led instruments that can support policy choices such as health technology assessment, which incorporates economic evaluation.
- Any decision-making process should:
  - gain agreement and buy-in from key stakeholders on the ultimate goals of the benefits package and the level of explicitness;
  - take into account the specific characteristics of the setting where the benefits package will be implemented, including its cultural values, market configuration, political system and wealth.

Chapter 2.3 Decommissioning/disinvestment: reducing the provision of low-value care

(Michael Anderson, Humza Malik, Elias Mossialos)

Decommissioning or disinvesting from low-value care means taking money away from health care services that give poor value for money. Key learning includes that:

- Ending investment in health technologies or treatments that are ineffective releases resources for more effective high-value care, increases efficiency and quality and contributes to sustainability.
- Disinvesting from or decommissioning low-value care often faces institutional barriers.
- Health technology assessment and the continuous monitoring of peer-reviewed evidence and administrative health care data are key in identifying low-value care and prioritizing what should be decommissioned.
- Combining financial and nonfinancial mechanisms can help influence both the supply of and demand for low-value care and stop its provision.
- Broad stakeholder consultation and engagement is a key part of ending the use of low-value care because patients, clinicians, health-related organizations and health system norms and structures can all create barriers to change.
- Decision-makers need to address how resources released by disinvestment can best be reinvested to strengthen efficiency, quality and access.

Chapter 2.4 User charges

(Jonathan Cylus, Riya Doshi, Sarah Thomson, Tamás Evetovits)

- User charges are OOP payments made at the point of use for health services. Nearly all countries have some user charges, most commonly for medicines. They are intended to raise revenue and also to reduce the use of unnecessary health services and products. Key learning includes that:
- User charges can generate revenues but have many unintended negative consequences – creating barriers to access, contributing to inequities and increasing the risk of financial hardship for households.
- Health systems can reduce unnecessary or wasteful use of care without user charges by:
  - strengthening prescribing and referral systems to make sure care is appropriate;
  - offering information to steer patients and providers towards more cost-effective care.
- Supply-side mechanisms that guide providers' behavior are more equitable and effective than

demand-side mechanisms, such as user charges, and have fewer negative impacts on patients – especially those with chronic or severe conditions or the economically disadvantaged.
- User charges are a suboptimal policy but – if they are to be used – health systems can mitigate the harm they cause and protect health care users through mechanisms such as exemptions, reduced co-payments, income-related co-payment caps and, to a lesser extent, price control and regulation.

Chapter 2.5 Long-term care: its financing and provision

(Tiago Cravo Oliveira Hashiguchi, Ana Llena-Nozal, Michael Mueller, José Carlos Ortega Regalado, Eileen Rocard, Francesca Colombo)

Long-term care (LTC) refers to a broad package of personal, social and medical services provided over extended periods of time which may be delivered by care professionals or by informal care givers. Key learning includes that:

- Population ageing, particularly in advanced economies, creates growing demands for LTC.
- There are inequities in the need for and access to LTC. Older people, women, those with lower incomes and lower levels of education are all more likely to need care, but less likely to have access to it.
- Funding arrangements for LTC are problematic in many countries:
  - voluntary insurance and OOP payments commonly fill public coverage gaps but create inequities;
  - asset-tests for eligibility for publicly funded care are essentially regressive wealth taxes due to the unequal distribution of LTC needs;
  - encouraging for-profit provision theoretically fosters competition, availability and responsiveness but the pressures to generate profits can jeopardize quality and safety.
- Countries face urgent pressures on LTC and could usefully consider:
  - increasing public expenditure and broadening the funding mix for LTC;
  - better, fairer pooling of resources across generations;
  - revenue sources independent of payroll contributions since labour markets as a revenue base will shrink at the same time that demand for ageing-related LTC increases;
  - better data and indicators to assess access, quality and value for money;
  - patient-centred and coordinated approaches to LTC.

What is covered in the full volume: Commissioning and purchasing

Purchasing is the final stage in the flow of health care funds, where pooled resources are used by a purchaser to remunerate health care providers. The primary goal is to ensure efficient and equitable resource utilization, aligning with the purchaser's objectives. Purchasing should guarantee the delivery of appropriate, high-quality care, minimizing waste and inefficiencies. Strategic purchasing, characterized by evidence-based decisions on provider selection, service procurement, payment methods and amounts, is an ideal but seldom fully realized concept. Performance monitoring, holding providers accountable through explicit or implicit criteria, is integral to the purchasing function, ensuring adherence to expectations and fair pricing. Various payment mechanisms, such as fee-for-service (FFS), capitation and case-based payments, have distinct effects on provider incentives and financial risk distribution, profoundly shaping health system behaviour.

This section of the volume encompasses 10 chapters. The initial chapters cover paying for primary and hospital care, exploring the potential of diverse payment models to address policy challenges and their effects on achieving health system objectives. The complexity of payment mechanisms, including user payments and informal payments, is discussed, emphasizing the importance of understanding their role in provider reimbursement. These chapters also tackle the financing of medicines,

challenges in coordinating care across different providers and LTC, recognizing the unique challenges posed by the integration of social and health care. The section concludes by shedding light on often overlooked areas such as pandemic preparedness, financing antibiotic research and development (R&D) to combat antimicrobial resistance and incentivizing research for neglected diseases, underlining the importance of global collaboration and innovative financing mechanisms to address these critical issues. Key messages from the chapters in this section include:

Chapter 3.1 Paying for primary care

(Anne Sophie Oxholm, Anthony Scott)

Primary care delivers first-contact access to health services and seeks to coordinate care. It is paid for in different ways in different settings: through salary, capitation (a fixed payment per enlisted patient), FFS, pay for performance (P4P) or through blended payments that combine two or more of these methods. Key learning includes that:

- The way health systems pay for primary care can incentivize treatment that supports wider health systems' goals, such as:
  - reducing avoidable referrals to secondary care, improving efficiency and reducing waste; and
  - encouraging adherence to evidence-based clinical guidelines, enhancing quality.
- P4P is often used to improve quality but the evidence on how effective it is, is mixed. If performance measures are not carefully designed to be context specific and adjusted for risk appropriately, they can create unintended barriers to and inequalities in access.
- The design of primary care payment models needs to be "holistic", to consider the goals of the health system and to underpin quality, access and efficiency.

Chapter 3.2 Methods for paying hospitals

(Stephen Duckett, Andrew Street, Chris Walters)

Methods for paying hospitals vary across countries and include FFS, block contracts, line-item budgeting (where purchasers specify exactly what funds are used for) and activity-based funding (with a fixed rate for each episode of care independent of the hospital's costs of care). Increasingly, P4P elements are also used. Key learning includes that:

- Third-party purchasers: government agencies, SHI funds or insurance companies provide the bulk of hospital revenue giving them levers to shape provision.
- Purchasers and hospitals have distinct objectives that are not always aligned – purchasers will pursue the best quality of care at the lowest price for their covered population while hospitals seek stable revenue streams to cover their costs.
- Information asymmetries give hospitals advantages over purchasers.
- Purchasers use payment methods and financial rewards to incentivize the volume and quality of care, patient-mix and management effort they want. There are complex challenges around:
  - specifying the details;
  - negotiating effective contracts; and
  - managing payment systems.
- Monitoring outputs and safeguarding quality requires structures and systems which are costly.
- Reforming funding or transitioning from one payment model to another is often a long process that demands sophisticated design and careful implementation.

Chapter 3.3 Informal payments in health care

(Sara Allin, Ilias Kyriopoulos, Iva Parvanova)

Informal payments are unsanctioned, unregulated OOP payments made by patients directly to their health care provider for services that are covered by third-party purchasers. They are not recorded in routine administrative databases but can be captured in surveys, although they are usually under-reported. Key learning includes that:

- Informal payments reduce access to health care and financial protection. They can undermine population health and reduce trust in providers and governments in the long run.
- Informal payments often stem from unmet desire for safe, timely or high-quality care and imply a mismatch between supply, demand and pricing in the formal health care payment system. When formal system payments are felt to be inadequate, informal payments may also be used to express gratitude to providers.
- Settings with low physician density, and/or where the share of gross domestic product spent on health care is low, tend to have higher levels of informal payments.
- Informal payments are also associated with settings with high reliance on formal OOP payments (user charges).
- Reducing or ending informal payments is difficult and requires a combination of specific, targeted measures and broad health systems reforms that address underlying causes.
- The policy measures that may reduce informal payments include:
    - formalizing OOP payments, with exemptions to protect vulnerable populations;
    - making clear and explicit what the health care benefits package covers;
    - better monitoring and enforcement of rules and penalties;
    - maintaining and expanding publicly financed statutory coverage.

Chapter 3.4 Paying for medicines

(Nicole Mauer, Daniela Moye Holz, Sabine Vogler, Dimitra Panteli)

Paying for medicines includes how the end-purchase of existing medicines is managed but also the way investment in R&D is handled. Key learning includes that:

- Pharmaceutical innovation draws on substantial public and private resources.
- The public sector primarily supports early-stage research, regulates the industry and incentivizes development.
- The private sector is typically central to development, commercialization, manufacture and marketing. It seeks high profit margins and is not always transparent or responsive to public policy priorities.
- Novel and specialized therapeutics as well as population ageing are likely to accelerate medicine expenditure. This requires careful management of pricing and reimbursement.
- Policy-makers can leverage a mix of push and pull strategies to align industry efforts with societal need.
- To optimize pharmaceutical policy policy-makers must consider:
    - clear communication of health system priorities;
    - transparent incentive and pricing systems and measures to enhance R&D efficiency;
    - payment mechanisms that foster equity and sustainability;
    - cross-country collaboration including on preparedness, procurement and pricing transparency.

Chapter 3.5 Paying for integrated care
(Søren Rud Kristensen, Ewout van Ginneken, Matthew Sutton)

Integrated care is about better management of the care patients receive in different settings (primary, secondary) and from different specialists and teams. It is particularly important for patients with multimorbidity and chronic long-term needs, and as populations age. Key learning includes that:

- Health systems' payment models can play an important role in incentivizing integrated care.
- Purchasers are now testing innovative payment models (e.g. pay for coordination) which explore how to foster better coordination. These models include:
  - bundling payments to single providers so that the multiple services a patient uses are better linked; and
  - bundling payments for patients being treated by multiple providers, creating joint budget responsibility and a need to work together and avoid duplication.
- Policy-makers would do well to focus on careful design of information systems to underpin payment schemes because:
  - information sharing supports clinical effectiveness;
  - quality indicators allow purchasers to tie bonuses or penalties to integration;
  - monitoring activity and health outcomes helps assess value for money;
  - tracking the distributional consequences of incentive schemes is crucial in protecting equity;
  - robust evaluation alongside payment reform allow immediate lessons to be shared and will capture changes over time and across the health care system.
- Health systems need to embed financial incentives as part of a broader system approach. Critical elements include:
  - committed leadership;
  - effective communication among providers;
  - structural integration, either through coordinating mechanisms that link provider roles or by the formation of new entities with single management teams.

Chapter 3.6 Balancing incentives to promote quality and improve long-term care
(Ruth Waitzberg, Sharona Tsadok Rosenbluth)

As populations continue to age with multimorbidity and the supply of informal care declines, expenditures in LTC are expected to increase. However, better value for money can be achieved in LTC.

Resource allocation mechanisms for LTC and payments to providers are distinct from those for health care for a number of reasons. Key learning includes that:

- LTC is particularly prone to poor quality or inadequate care, under provision, overmedicalization and to delivery in suboptimal settings.
- The challenges for LTC reflect its differences from health care markets, including that:
  - in health care the focus is on improving health whereas, once an individual needs LTC, that need for care is permanent and the emphasis shifts to maintaining quality of life;
  - LTC is often provided by low-paid or informal (often unpaid) caregivers rather than highly-trained professionals;
  - LTC markets are generally fragmented, with a multitude of funding sources and payers involved;
  - collecting data on LTC quality, defining indicators and setting targets are difficult and make value-based payments particularly challenging.
- Payments for formal LTC provision should be adjusted based on risk and inevitable cost variation between patients, and then combined with other payment types that incentivize additional aspects, including quality of care and cost containment.

- Informal caregivers may be compensated either with cash or non-monetary benefits. Although these do not normally cover the full costs of providing care, they acknowledge carers' contributions and to some extent address issues such as working hours lost.

Chapter 3.7 From vertical to horizontal priority-setting: funding and procurement mechanisms

(Ranjeeta Thomas, Kalipso Chalkidou)

Priority-setting is about taking explicit decisions on where limited public resources should be allocated. Vertical priority-setting focuses on choices for particular sets of health conditions or population groups whereas horizontal priority-setting looks more broadly across types of care, such as primary or secondary care, and broader investments. Key learning includes that:

- Defining a health benefits package that is affordable and accessible by all implies a horizontal approach to priority-setting.
- Countries cannot progress towards UHC without horizontal priority-setting and without some form of collective funding and procurement mechanisms.
- Horizontal priority-setting is highly context specific. Countries may need to reorganize financing and procurement mechanisms to overcome barriers to progress.
- Increasing the total resources for health benefits packages can help with the introduction of more horizontal approaches.
- Improving procurement can also support the move towards horizontal priority-setting whether through national efforts (such as better data gathering and use) or international initiatives (i.e. harmonizing regulation across countries or global investment in health security).
- Local capacity is key in supporting the pooling mechanisms, health benefits package design and regulation which enable horizontal priority-setting. Donors can usefully support health systems strengthening by investing in capacity-building and information sharing.
- Strong political will and cooperation between stakeholders is critical in progressing towards appropriate priority-setting for UHC and in designing, financing and implementing a comprehensive health benefits package.

Chapter 3.8 Funding pandemic preparedness

(Susan Sparkes, Andrew Mirelman, Alexandra Earle, Ankur Rakesh, Jonathan Abrahams)

A pandemic can wreak health, societal and economic havoc. Prioritizing common and global public goods for health and specifically for pandemic planning is complex and requires financing mechanisms at the national, regional and supranational levels. Key learning, including from COVID-19, is that:

- Pandemic preparedness is subject to inherent market and collective action failures and is often underfunded.
- Governments need clear strategies for financing preparedness.
- Preparedness depends on strong health system foundations and contingency funding mechanisms that go beyond simply setting funds aside. It is crucial that funds can be mobilized quickly and in a coordinated fashion.
- Key steps for planning responses include:
    - assessing existing activities and mapping value for money;
    - agreeing on the need for public financing for population-based functions (i.e. common goods for health);
    - identifying appropriate types of financing that reflect the complexity of determining re-

source needs and allow for nuanced cost estimation;
    - developing context-specific financing tools that include flexible funds and address accountability;
    - holding transparent discussions about trade-offs;
    - improving budget transfer mechanisms;
    - integrating domestic finance into multiyear budgets; and
    - managing and strengthening international collaboration.
- International guidance and learning from COVID-19 can help inform preparations. Organizations including the World Health Organization and the World Bank offer tools to help decision-makers. It is crucial that these are assessed for suitability to context and customized to the national and local setting.

Chapter 3.9 Antibiotics as global public goods

(Matthew Renwick)

Global public goods are goods and services whose benefits are universal in scope. Antimicrobial resistance poses a major health and economic threat worldwide, making novel antibiotics a global public good. Payment mechanisms have an important part to play in encouraging crucial R&D. Key learning includes that:

- Antibiotics are essential global public goods, but rising antimicrobial resistance is rapidly undermining their effectiveness worldwide.
- The antibiotic development pipeline has collapsed, as traditional patent-based market incentives fail to generate sufficient returns for industry.
- Antibiotic R&D faces high scientific risk, long timelines, high costs, and weak commercial viability, particularly at clinical and market-entry stages.
- Numerous global and national incentive programmes have been established to support, fund, and coordinate antibiotic R&D.
- Existing efforts rely mainly on push incentives, such as grants, which support early research but do not ensure successful commercialization.
- Pull incentives, such as market entry rewards and subscription payment models, are essential to correct market failure by delinking revenues from sales volume while supporting antimicrobial stewardship and patient access.
- Sustainable solutions require coordinated global action integrating push–pull incentives, regulatory harmonization, and One Health principles.

Chapter 3.10 Financing innovation for neglected diseases

(Marisa Miraldo, Mujaheed Shaikh, Mohamed Gad)

Neglected diseases account for about a fifth of the global burden of disease and affect over a billion people. They are neglected because the pharmaceutical sector does not consider it profitable to develop treatments for them. This reflects the fact that neglected diseases are most prevalent in low- and middle-income countries with relatively low purchasing potential. Key learning includes that:

- Global pharmaceutical R&D invests a disproportionate share of innovation and activity in diseases that affect high income countries, something which fosters significant inequities.
- A range of push and pull incentive mechanisms have been developed to delink the cost of research from market profitability and promote innovation in areas of need. These include measures to:
    - reduce the upfront costs by subsidizing R&D pre-discovery (push incentives); and

    - offer a reward post-discovery (pull incentives).
- The evidence on the effectiveness and reach of incentive schemes is scant and more needs to be done to understand the relative cost-effectiveness of the different incentive mechanisms and the extent to which they mitigate inequalities in innovation and access to new medicines.
- A global, unified governance framework for needs assessment and resource allocation could usefully:
    - carry out systematic comparisons of the relative needs associated with neglected diseases globally;
    - assess the costs and benefits of addressing these;
    - set priorities for the coordinated global allocation of funding and targeted incentive mechanisms; and
    - consider payment mechanisms that will translate research into market launches.

What are the lessons?

The full volume presents health financing experience and case studies from diverse countries across income levels and regions to understand the options for addressing challenges across the three main functions of health financing (Box 0.1.1). Looking ahead, challenges in revenue raising involve selecting appropriate funding sources that generate adequate and stable resources, as well as ensuring equity in financing, particularly for lower-income groups who should pay only as much as they can afford. Pooling challenges encompass the inclusion of diverse population groups in risk pools with uniform financial contributions and health benefits, implementing necessary financial transfers between pools, and defining realistic benefit packages that adapt to emerging medical innovations. Purchasing health care necessitates payment mechanisms that are aligned with purchaser objectives, incentivizing high-quality care and promoting continuity of care in cases involving multiple providers. The COVID-19 pandemic underscored the imperative of global cooperation in financing public goods such as pandemic preparedness.

There is no "best" way to finance a health system; each health system has its own needs, constraints, preferences and contexts that will influence what the optimal revenue raising, pooling and purchasing strategies are. However, health financing systems that successfully push towards UHC typically share some common traits of good governance such as: clear priorities, robust financial regulations, effective monitoring mechanisms, transparent decision-making processes that involve and engage stakeholders and a commitment to equity and fairness in resource distribution and procurement. These features can prove crucial in developing strategies to address the challenges listed above and move towards the ultimate goal of ensuring that people have access to high-quality, affordable, accessible, efficient and equitable health services that they need.

Box 0.1.1 Key challenges for the future in financing health systems for UHC

Revenue raising

- Securing reliable revenue sources of adequate size to fund the desired health system, especially as populations age and informal work sectors grow in many places.
- Reducing user fees and OOP payments, especially for lower-income groups and those in poorer health, by increasing the reliance on public sources of funding.
- Assuring that revenues are raised equitably, with the largest financial burden borne by those who can most afford it rather than those who need the most health care.

Pooling and defining benefits

- Assuring that all population groups are included in risk pools that promote equity and require similar financial contributions and offer similar packages.
- Where necessary, establishing and refining financial transfers between risk pools to promote equity between different population groups.
- Setting realistic, explicit benefits packages that maximize health benefits and adapt nimbly to the emergence of new treatments and technologies.

Paying providers

- Establishing and strengthening institutions that can make strategic purchasing decisions.
- Designing payment mechanisms that offer incentives aligned with purchaser objectives.
- Incentivizing the provision of mandated health services, especially for disadvantaged groups.
- Strengthening the monitoring and assessment of provider performance.
- Incentivizing continuity of an individual's care across multiple providers and across life stages.
- Securing global cooperation to finance global public goods (e.g. pandemic preparedness, challenging AMR).