



Product Development Partnerships (PDPs)

Background

Despite the many advances in research and development (R&D) in global health over the past half-century, an estimated 5.7 million people die every year from infectious diseases¹, of which the vast majority are poor people living in low- and middle-income countries. For example, tuberculosis (TB) is the world's leading poverty-related and neglected disease (PRND), killing about 1.5 million people in 2018, including 251,000 people with HIV.² It accounts for about one in three deaths caused by antimicrobial-resistant infections annually.³

The toll of this disease burden comes in the form of increased mortality and morbidity, inability to follow education, and lost work productivity, thus threatening the ability to reach economic and other development goals. The absence of an effective market and resulting lack of financial incentives to private sector investment has contributed to limited private sector engagement and has restricted innovation in global health R&D. The World Health Organization (WHO) has highlighted a funding gap of more than US\$1.3 billion per year required for the development of new tools – diagnostics, drugs and vaccines – needed to fight TB.²

The creation of product development partnerships (PDPs) aims to fill such existing R&D gaps. PDPs research, develop and facilitate access to new health technologies that target diseases that disproportionately affect populations in low- and middle-income countries across Latin America, Africa and Asia.

What are PDPs?

- Nonprofit organizations that develop appropriate and affordable innovative tools for populations affected by PRNDs.
- Public health-driven and focused on patients' needs in designing products for use in low- and middle-income countries with a high disease burden.
- Working along the product development continuum from early discovery to product implementation, covering specific research gaps or the full innovation cycle.
- Employing a portfolio approach to R&D to accelerate product development by pursuing multiple strategies for a disease area and allowing only the most promising products to move forward.
- Engaged as partners with academic and public research institutions, the private sector, governments, and civil society organizations—including partners in developing countries, stimulating medical research in developing countries and linking scientists across the North-South divide.

Aims

PDPs work to address the particular needs for new products for PRNDs. They drive R&D with patients' needs in mind and facilitate access to appropriate and affordable tools in disease-endemic countries. PDPs are able to advance global health goals by accelerating the development of products that may not otherwise have been created.

PDPs Create Impact

PDPs have helped to create the largest product development pipeline ever for drugs, vaccines, and diagnostic tools to address global health needs. Investments in the PDP model at the turn of the millennium are paying off:

- Medicines for Malaria Venture (MMV) and GlaxoSmithKline (GSK) developed the first single-dose medicine to prevent relapse of *P. vivax* malaria. The medicine was approved by the U.S. Food and Drug Administration (FDA) in 2018, marking a major contribution towards malaria eradication efforts.
- The development of the first all-oral treatment for sleeping sickness, from DNDi and partners, paved the way for distribution of the treatment in endemic countries in 2019.
- A new TB treatment developed by TB Alliance received U.S. FDA approval in 2019, and is the first drug regimen approved for some of the most highly drug-resistant forms of TB.
- FIND accelerated development of molecular diagnostics that have reduced TB identification from months to hours – including Truenat, the first locally developed molecular test on the market – and invested in a decade of research to make a true point-of-care test for TB a reality for those coinfecting with HIV.

Advantages and Strengths of PDPs

1. Enabling product development in areas with few market incentives
2. The model allows for a focus on (global) health priorities rather than economic incentives
3. Pooling and leveraging multi-stakeholder expertise for global collaboration
4. Cost efficient and effective, returns funding in academic research and capabilities of small and medium enterprises and leverages pharmaceutical industry's continued investment
5. Matched funding and safeguards for access, affordability and appropriateness of products
6. Continued and increased investments in PDPs and product development will catalyze progress in global health, reaching the SDGs and thus social and economic development



References

1. WHO. *The top 10 causes of death*. 2018. <http://www.who.int/en/news-room/fact-sheets/detail/the-top-10-causes-of-death>
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3. Review on Antimicrobial Resistance. *Tackling Drug-Resistant Infections Globally: Final Report and Recommendations*. https://amr-review.org/sites/default/files/160525_Final%20paper_with%20cover.pdf