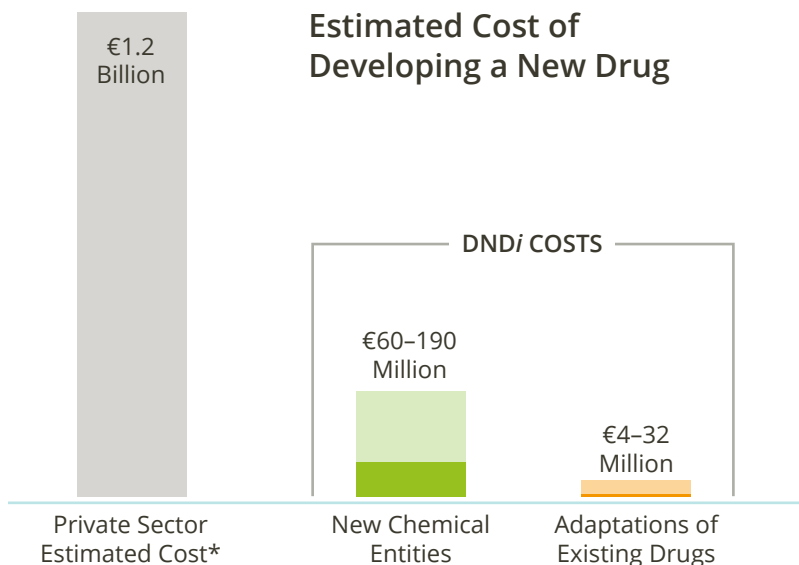


PDPs Develop Cost-Effective Medical Innovations with High Returns on Investment

The products that product development partnerships (PDPs) develop provide tremendous value for money and a strong return on investment. Not only are PDPs cost-effective developers of urgently needed medical innovations for underserved communities and disease areas, but the products PDPs develop enable significant cost savings and enhance the performance of typically low-resourced health systems, for example, oral treatments that avoid hospitalization and rapid diagnostics that increase primary healthcare capacity to meet health needs and reduce costs.

Cost-Effective Innovation

PDPs are consistently able to develop products at costs below those of the private sector. For example, DNDi documented the full costs of its research and development of a new chemical entity at €60–190 million (attrition included), a figure substantially lower than that estimated by private industry. Adaptations of existing drugs can cost €4–32 million.



*converted to 2019 Euros and rounded.

Sources: DNDi (2019) 15 Years of Needs-Driven Innovation for Access, Key lessons, challenges, and opportunities for the future.

DiMasi JA, Grabowski HG, Hansen RA. Innovation in the pharmaceutical industry: new estimates of R&D costs. *Journal of Health Economics*, vol 47, 20–33, May 2016. <https://www.sciencedirect.com/science/article/abs/pii/S0167629616000291?via%3Dihub> from *Keeping the Promise* (2021).



Investing in PDPs is a safe and impactful way to save lives, strengthen health systems, and promote economic development, health security, and stability around the world.

Case Studies in Cost Savings

New Six-Month Drug-Resistant TB (DR-TB) Therapy Can Save Governments Up to US\$740 Million Each Year

The BPaLM/BPaL treatment regimen, developed by TB Alliance, included in World Health Organization (WHO) guidelines for DR-TB could save governments up to US\$740 million annually, enough monies to fund almost another year's worth of DR-TB treatments for more than 400,000 people. The cost of implementing this therapy is estimated to be potentially 40-90% less expensive than current regimens. The shorter treatment time means that patients spend significantly less time in healthcare facilities, and fewer tests and procedures are needed to monitor their health and progress. Patients are also able to recover their health more quickly, an important point underscored by data from WHO showing that in 19 of the top 20 high-burden countries, 87% of people with drug-resistant TB and their households experienced financial catastrophes. These economic benefits of BPaLM/BPaL are in addition to significantly improved cure rates compared to previous therapies.

Source: Gupta A, Juneja S, Sahu S, Yassin M, Brigden G, Wandwalo E, et al. (2022) Lifesaving, cost-saving: Innovative simplified regimens for drug-resistant tuberculosis. *PLOS Glob Public Health* 2(11): e0001287. <https://doi.org/10.1371/journal.pgph.0001287>

Growing GDP by Combating Malaria

Research has shown that malaria can negatively affect macroeconomic performance and is a determinant of economic growth in the long term. The growth rate of the gross domestic product (GDP) per capita in malaria-endemic countries is 0.25-1.3 percentage points lower than in countries without malaria. Over a period of 25 years, GDP per-capita growth in countries not affected by malaria was more than five times higher than in countries affected by a heavy malaria burden. An expenditure impact study suggested that for every US\$1.00 per-capita investment in the fight against malaria in Africa, there was an increase in per-capita GDP of US\$6.75.

Source: Roll Back Malaria Partnership (2015). Action and Investment to defeat Malaria 2016-2030 For a Malaria-Free World. World Health Organization. https://endmalaria.org/sites/default/files/RBM_AIM_Report_0.pdf

The Economic Case for Investing in Innovation Against NTDs

PDPs are the global leaders in developing health technologies for neglected tropical diseases (NTDs). NTDs impact more than a billion people—1/6th of the world's population. In addition to their significant health impact, NTDs cause financial hardship among affected individuals. A conservative estimate suggests that the end of NTDs would avert a total of I\$35 billion in out-of-pocket (OOP) health expenditures by affected individuals over a 20-year period between 2011 and 2030. Progress toward the end of NTDs would avert a further I\$622 billion in wages lost by affected individuals over that same period. Therefore, the average annual benefit to affected individuals in terms of averted OOP health expenditures and lost wages is conservatively I\$133 billion per year.

Source: Fitzpatrick C, Nwankwo U, Lenk E, et al. An Investment Case for Ending Neglected Tropical Diseases. In: Holmes KK, Bertozzi S, Bloom BR, et al., editors. *Major Infectious Diseases*. 3rd edition. Washington (DC): The International Bank for Reconstruction and Development / The World Bank; 2017 Nov 3. Chapter 17. Available from: https://www.ncbi.nlm.nih.gov/books/NBK525199/doi:10.1596/978-1-4648-0524-0_ch17

