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RETURNS ON INVESTMENTS IN HEALTH RESEARCH AND DEVELOPMENT(R&D) IN KENYA

POLICY BRIEF

Futures Health Economics & Metric
Optimal Investment by Choice

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KEY MESSAGES

1. Health Research and development (R&D) is crucial to addressing complex challenges of modern global health and designing effective treatment and prevention approaches to address unique country's burden on Diseases, as well as emerging challenges like climate change.

2. Notably, the projected return on investment (ROI) from Health R&D investment is an impressive 1: 2.4 in the short run and 1:4.7 in the long run, which means that each dollar or shilling invested in Health R&D has the potential to generate a return of up to 2.4 and 4.7 times the initial investment in the short and long run. This underscores the transformative power of health R&D investment in Kenya's development journey.

3. Investments in health R&D have a substantial positive impact on GDP per capita, and growth underlining the pivotal role of innovation and advancement in health for driving economic development.

4. The government prioritizes investments in health R&D not only for the generation additional returns but also to enhance citizens' well-being through advancement of better prevention and treatment approaches.

5. There is a need to leverage investments in health R&D to foster growth and innovation opportunities, it is essential to enhance investment in innovative ecosystems.

Context

Global acknowledgment of the pivotal role of health research and development (R&D) in driving progress and sustainable development is growing. In Africa, increasing investment in health R&D is crucial for enhancing economic growth and health outcomes. However, African countries allocate only 0.45% of their Gross Domestic Product (GDP) to health R&D on average, well below the global average of 1.7%, highlighting a significant financing gap that must be closed to unleash the continent's potential for sustainable development (World Bank, 2024). Investment in health R&D is vital for the health sector, offering crucial innovative solutions and evidence for preventive interventions, treatments, and care pathways in the fight against diseases such as malaria, HIV/AIDS, tuberculosis, neglected tropical diseases, and emerging infectious diseases (Jakovljevic et al., 2021; Zhang & Liu, 2020). Understanding the returns on Health R&D investments is essential for firms to optimize strategies and attract investors, yet there is limited empirical evidence on the impact of health R&D on economic growth, highlighting a gap in the literature that the study aims to address by estimating the returns on health R&D investments.

METHODOLOGY

The study examined the impact of Health Research and Development (R&D) expenditure on Kenyan economic growth (measured via GDP) from 1991 to 2021, with government health R&D spending as the main regressor. Control variables like Financial Development (FD), Government expenditure on education (GOVEXED), ICT service exports (ICT_SER_EXP), Internet usage (INTERNET), Foreign Direct Investment (FDI), and gross capital formation (GCAPFORM) were included to assess their influence on economic growth. The study utilized the ADRL model.

RESULTS

The findings indicate that investments in health R&D and changes in health R&D growth rates have a notable positive effect on economic growth and economic productivity, underscoring the significance of health innovation for economic progress. The financial rate of return for health R&D is about 240% in the short run and 472% in the long run estimated, i.e., for every shilling invested in health R&D, the gross domestic product increases by Ksh 2.40 in the short run and Ksh 4.72 in long run.

The results presented in this analysis are consistent with other recent studies on investment in health (Cutler et al., 2007; Luce et al., 2006; Murphy and Topel, 2006). The results showcase that there are returns that merit both the private and public sectors to tap into opportunities for investing in Health R&D.

POLICY OPTIONS

Enhanced Investment in Innovation Ecosystems: Encourage the development of innovation ecosystems to capitalize on the significant investments in health R&D and the opportunities for growth and innovation presented by diverse levels of connectivity. This could involve creating upportive policies, funding mechanisms, and infrastructure to foster entrepreneurship, research, and development in key sectors.

Skills Development Programs: Implement targeted skills development programs to enhance the human capital base further. This is a crucial policy option to foster innovation, enhance capacity, and drive progress in the healthcare sector. By investing in training initiatives that equip researchers, scientists, and healthcare professionals with advanced skills and nowledge, countries can cultivate a skilled workforce capable of addressing complex health challenges and driving cutting-edge research.

Promotion of Financial Inclusion: By prioritizing financial inclusion in health research and development, Kenya can cultivate a vibrant and sustainable innovation environment that accelerates the discovery of new treatments, technologies, and solutions to address pressing health challenges globally.

Infrastructure Development: Infrastructure development is vital for advancing medical science, improving healthcare outcomes, and tackling public health challenges. Key aspects include building cutting-edge research facilities, establishing robust data infrastructure for secure health data management, creating biobanks for storing biological samples, fostering collaborative networks among research institutions, investing in training programs for a skilled workforce, and implementing a regulatory framework to ensure ethical conduct in research. These efforts collectively support innovation, knowledge sharing, and the development of new treatments and interventions in health research and development.

Export Promotion Strategies: Key strategies include fostering international partnerships, conducting market research to identify export opportunities, developing products tailored for export markets, ensuring compliance with quality standards and regulations, participating in trade missions and exhibitions, providing export financing and support, protecting intellectual property, accessing market assistance, promoting brand identity, and investing in capacity building. These strategies aim to enhance global market access, stimulate economic development, and promote the international competitiveness of health research and development sectors.

CONCLUSION

There is a strong evidence base demonstrating that there are high benefits of investing in health R&D both in the long run and in the short run. Notably, the projected return on investment (ROI) is an impressive 1:2.4 in the short run and 1: 4.3 in the long run. This means that each dollar or shilling invested in health Research and Development has the potential to generate a return of up to 2.4 and 4.3 times the initial investment in the short run and long run respectively. This underscores the transformative power of health R&D in Kenya and developing countries in general. Investing in health R&D is a forward-looking strategy that can yield long-term benefits by nurturing a healthier population, fostering technological advancements, and propelling the country toward sustainable economic prosperity. Therefore, Kenya should prioritize and strengthen investments in health R&D to enhance economic growth and overall development in Kenya.

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