

## **Underinvestment in Global Health – examining the potential of innovative finance to close the looming NCD investment gap**

**Andrea B. Feigl<sup>1</sup>, Scott Ratzan<sup>2</sup>, Surabhi Bhatt<sup>1</sup>, Erin Gregor<sup>3</sup>**

<sup>1</sup> Department of Global Health and Population, Harvard TH Chan School of Public Health

<sup>2</sup> Mossavar-Rahmani Center for Business & Government, Harvard Kennedy School

<sup>3</sup> Faculty of Applied Sciences, Harvard Kennedy School

Academic working paper providing background to the innovative financing task force of Multisectoral Engagement for Sustainable Health (MESH). The paper first highlights the tight link between health, development, and economic progress, thereby buttressing the case for investment in NCD prevention and treatment programs. The second part of the paper reviews non-traditional, ‘innovative’ financing methods that have been applied at various scales to address the SDG financing gap, examining their applicability, challenges, and opportunities to be applied to the NCD challenge. The paper concludes with several action-oriented recommendations and steps forward.

MESH is a collaboration of at the Harvard Kennedy School’s Mossavar-Rahmani Center for Business & Government and the Harvard T.H. Chan School of Public Health, and was initiated in 2018. It is dedicated to help attain the United Nations Sustainable Development Goal on health and well-being (SDG3), and is designed to galvanize dialogue and health action across multiple sectors – government, business, academia, agencies and nonprofits

The time may have come for a review of the world's approach to public health, for vaccination, antibiotics, insecticides and the like are useless against heart disease, diabetes and cancer. New ways of thinking about the problem are needed – both because chronic disease requires continuous treatment, and because many of the answers to the question. “How can people in the 21st Century have healthier lives?” is not strictly medical at all.

The Economist, Dec 15th 2012, Global Health – Lifting the burden, p. 77

As the world has agreed to achieve the U.N. Sustainable Development Goals by 2030, including a goal for health and well-being containing a target to achieve universal health coverage, a re-thinking of how all sectors in society could work together, particularly regarding the financing of the trillion-dollar health agenda, is warranted. As health determinants cut across sectors, a sustainable, sufficiently financed prevention-oriented health agenda needs to build on multisector platforms, rooted in common understanding, values, and goals.

Health and well-being are core requirements to fulfill human potential in any sector. Health serves as universal, common currency needed to achieve goals, objectives, and is one of the two key ingredients of human capital. Yet, there is a dramatic shortfall in current resources needed to achieve meaningful progress on SDG3. The WHO estimates an annual required investment of up to \$371B in LMICs to achieve SDG3 (Bustreo, 2015); while up to 85% of necessary investment may be met with domestic resources, poorer countries—arguably the very countries for whom SDG3 progress is most critical—will face shortfalls of up to \$54B annually (Bustreo, 2015).

Given this large financial gap, the few existing multisector platforms to achieve SDG3 are already falling short in garnering the additional investments needed, as highlighted in the 2018 OECD Development Finance Progress report. We have created the Innovative Financing Task Force of MESH to generate ideas for timely evidence-based financing solution to help close the NCD financing gap.

### **Overview of the macroeconomic burden of underinvestment in health**

*The economic argument of investing in health is quite simple: healthier people are more productive, leading to greater economic productivity and other improved quality of life measures. Given the real resource constraints of public budgets and competing interests for private investments, convincing the right stakeholders to invest in health and cost-effective solutions is paramount for sustainable growth.*

Globally, it is estimated that by 2040, only one (3%) of 34 low-income countries and 36 (37%) of 98 middle-income countries will reach the Chatham House goal of 5% of gross domestic product consisting of government health spending (Dieleman, 2017).

Even in a group of advanced economies like those represented in the G20, achieving the 2030 health goals is not assured, resulting in associated economic challenges. A recent report has predicted that several G20 countries will not meet the 2030 health goals, with only Brazil, Russia, South Korea, Croatia,

Czech Republic, Denmark, Estonia, Latvia, Luxembourg, and Slovakia projected to meet the SDG 3 targets. Countries that are stagnating or even deteriorating in achieving their SDG3 goals are the United States, Mexico, and Cyprus (Bennett et al., 2018). As a consequence, human capital in these countries lacks behind those of their G20 counterparts: The US ranks 27<sup>th</sup> on the human capital scale, whereas Mexico ranks at 104, and Cyprus is at rank 20 (Lim et al., 2018).

What does this funding and health achievement shortfall mean for societies of the 21<sup>st</sup> century? Underinvestment in health and prevention does not only extort a large human toll, but also, depresses economic growth and living standards. Underinvestment in health and the failure to provide universal health coverage and disease prevention reduces human capital, and in turn, the potential for growth and better living standards.

The way health affects the economy – and the rationale of why investments in health drive development and living standards – has been researched and put forth for decades; Bloom & Canning at Harvard have shown that health improvements can influence the pace of income growth via their effects on labor market participation, worker productivity, investments in human capital, savings, fertility, and population age structure (Bloom, Canning, Kotschy, Prettnner, & Schünemann, 2018). More recently, the World Bank has called for measurement and annual reporting of human capital to track and motivate investments in health and education, to help close the critical financing gaps in these areas (The World Bank, 2018a).

However, while research has buttressed the argument that an investment in health will have multiple fold returns for the economy at large, the translation from evidence to action has been poor, and the uptake of the message beyond the health sector has been lackluster at best.

Still, with recent research highlighting that the economic burden of chronic diseases – with the burden largely a preventable one – as high as a 10% tax on GDP in countries like the United States (Chen, Kuhn, Prettnner, & Bloom, 2018) - this issue is too big a moral and financial issue not to fall on the ears of the highest level of policy makers and finance ministries alike.

### **Just how big is the health and economic burden of the most common and preventable diseases?**

Among all the pressing health issues, the burden of non-communicable diseases stands out the most, both as a health and as an economic issue. Together with digestive and muscular conditions, cancer, mental health and circulatory diseases, spending on NCDs account for almost 60% of current health spending in OECD countries. That is about \$2,400 per person every year. Health spending on the consequences of obesity alone can reach almost 10% (OECD, 2017a).

Chronic conditions linked with obesity – such as heart disease, cancer, or diabetes - decrease employment rates and increase early retirement by at least 10% in European countries (OECD analysis, forthcoming). Of particular concern is that mental health accounts for up to 14% of health spending - and the share is growing (OECD, 2014).

The global cost of Alzheimer's is estimated at \$1 trillion, with roughly 50 million individuals affected in 2017. Alzheimer's incidence is projected to increase 50% to 75 million by 2030, rising fastest in low- and

middle-income countries such as India and China—which already account for nearly two-thirds of the global Alzheimer’s disease burden (OECD, 2018a).

Chronic disease and mental health conditions over the period 2015–2030 levied a financial toll of \$81.96 billion 2015 USD on Costa Rica, \$18.45 billion for Jamaica, and \$477.33 billion for Peru in business-as-usual scenarios (Bloom, Chen, & McGovern, 2018). Overall, In China and South Korea, the total losses associated with these non-communicable diseases over the period 2010-2030 are \$16 trillion for China (measured in real USD with the base year 2010), \$5.7 trillion for Japan, and \$1.5 trillion for South Korea (Bloom et al., 2017).

### **What are some viable, cost-effective solutions?**

Based on the best and most recent evidence, intervention packages, rather than single policy solutions or one-off vertical investments would improve people’s health most effectively, and can be cost-effective. Similarly, higher quality healthcare and investment in prevention will lead to compression of morbidity in ageing (OECD, 2005).

A number of ideas have been put forward by the Task Force to Address Preventable Leading Causes of Death and Noncommunicable Diseases Through Fiscal Policy, (co-chaired by Prof. Lawrence Summers with Michael Bloomberg), the WHO Independent High-level Commission on NCDs “Time to Deliver” report, Lancet Commission and the UN General Assembly declaration. It is clear that sustainable impact requires leveraging well thought out fiscal and value driven public policies that have scale and reach. Yet, as these policies and funding streams with taxation and regulation include approaches that “nudge” away from harmful products, reduce risk factors and address determinants, they have political and implementation hurdles.

The evidence base to date for successfully addressing NCDs is clear:

- Prices and access to goods and services have historically influenced consumer behavior on young and economically disadvantaged populations. (People will buy less if it costs more or is difficult to get)
- Taxes on certain goods can create barriers for purchase and sale as well as educate policymakers and the public on harm and related societal values/disapproval.
- Large scale communication campaigns for behavioral and social change with behavioral economics, health literacy and communication levers (mass and social media) can drive citizens toward healthier decisions.<sup>i</sup>

For example, looking at preventable risk factors, a comprehensive obesity prevention strategy would cost less than USD 20 000 per life year gained in five countries where these costs were modelled (OECD, 2010). Things like food labelling, physician interventions on diet, alcohol and physical exercise, mass media and other policies can generate savings in health care expenditure, which often offset their implementation costs. Price policies, including minimum unit pricing laws and taxation on harmful products are most promising when combined with other interventions. It has been estimated that price policies on alcohol, for example, can lead to cumulative gains of up to USD PPP 55 per person after ten years in the Czech Republic (OECD, 2017d).

Interventions in primary care can be very effective in countries with less capacity constraints. For example, prescribing physical activity, together with improving mass transit systems, can increase

moderate physical activity by 1.5 hrs per week (OECD, 2017c). Screening and brief interventions and referral for alcohol use in primary care also can reduce harmful consumption of alcohol (OECD, 2017d).

In BRICS countries, cost-effective obesity measures are less likely to be in the medical setting, and more likely to be population based (OECD, 2017b).

### **So what is needed to make these policy solutions become reality?**

Firstly, NCDs and better health are not just a health sector issue. We know they require a Whole of Government response, but to get that we need to do better in making the case that they are a whole of government *and* whole of society problem. Such framing will lead to a whole of society solution.

Secondly, the NCD prevention and treatment agenda will require investment. Finding resources to fund such spending is good value, but that does not mean it is easy.

Fiscal space can also be freed up by ensuring money in the health system is well spent. Last year, a report highlighted that a significant share of health spending in OECD countries is at best ineffective and at worst, wasteful. Overall, existing estimates suggest that one-fifth of health spending could be channelled towards better use (OECD, 2017e).

By avoiding wasteful spending and investing some of the savings in prevention, this could become a significant source of revenue for financing national NCD responses, both for treatment and prevention.

In conclusion, we can no longer afford to ignore chronic underinvestment in health, especially in preventable conditions. The macroeconomic burden of chronic diseases has become an economic elephant in the room, both in high and low-income countries. The good news is that policies exist, which, particularly if implemented as a package, can help stem the tide of rising levels of NCDs.

Such political interventions require prudent policymaking with effective imaginative financial solutions. All this emphasises the need for dialogue to move beyond the health community alone, and particularly engage political leadership at the highest level including finance ministers and the private sector to articulate the case for enacting the best and evidence-based solutions.

As health determinants cut across sectors, a sustainable, sufficiently financed prevention-oriented health agenda needs to build on multisector engagement, rooted in common understanding, values, and goals. Those that do are challenged by conventional public-private sector silos, and have failed to deliver on the promise to close the financing gap for SDG3.

### **Innovative health financing for NCDs – what are the options?**

WHO predicts major economic losses over \$500 billion a year in low and middle-income countries if NCDs are not addressed. Despite great human and economic toll from NCDs, overall prevention spending for the top NCDs - cancer, cardiovascular disease, chronic lung disease and diabetes - only command about 1 percent of global health funding.

As countries continue to progress towards universal SDG 3, better and increased health financing has been critical to ensure individuals have access to affordable and quality health care without risk of financial hardship. However, despite efforts to improve public financial management and health financing, gaps remain in public sector financing, particularly as global health priorities and burdens shift.

A range of different traditional and innovative financing models is currently being utilized to fund public health. Moreover, innovative and sustainable models have been underutilized and can be expanded to increase funding. These models differ from traditional public health financing as they were created by enterprising practitioners and funders looking to plug funding gaps and reduce reliance on public funding and grants. This report provides an overview and examples for five innovative models:

- Impact investing and investment funds,
- Blended finance,
- Program and mission related investments,
- Preventative or health thematic bonds, and
- Wellness-linked insurance.

By creating value with profits that can be reinvested, blending different financing sources, or incentivizing positive health outcomes, innovative financing adds significant value to addressing the most challenging diseases of our time and setting us on a sustainable path towards SDG 3.

### **Impact investing/Investment Funds**

**Overview:** Impact investing is defined as investing resources into companies, organizations, and funds with a deliberate intention to create positive, measurable social and environmental impact alongside financial return (GIIN, n.d.). Impact investments generate a rate of returns from below market to market rate (e.g., return on capital or a minimum, of capital), and provide capital to address development needs, including global health and the growing NCD burden. Impact investors are varied and can include banks, pension funds, institutional and family foundations, and government or development finance institutions. If there is strategic alignment of social goals, most institutional and individual investors choose to invest through funds or portfolios, such as venture capital funds or private equity funds.

**Example 1:** The Global Health Innovative Technology (GHIT) Fund is a public-private partnership that accelerates new research & development for globally infectious diseases, such as HIV/AIDS, tuberculosis, malaria, and other neglected tropical diseases (GHIT, n.d.). Since the funding partners are the Government of Japan, 15 pharmaceutical and diagnostics companies, the Bill & Melinda Gates Foundation (BMGF), The Wellcome Trust, and UNDP, capital from the public sector, private sector, and philanthropy, are blended together to adjust risks to levels that are reasonable for business and for-profit impact investors (Mundle & Pluess, 2017). As such, the Fund invests in and manages a portfolio of global health product development partnerships that allow for open innovation. Through a guarantee, GHIT Fund provides investors with loss protection of up to 60% of the fund's capital. While the GHIT Fund does not demand any financial return in exchange for funding<sup>1</sup>, they use an "investment" over "grant-making" approach to ensure expectations and outcomes are met, as they have a shared stake in the investments.

**Example 2:** US-based impact investors such as Double Bottom Line, Omidyar Network, and Better Ventures have investment portfolios in healthcare, information technology, sustainable and clean energy, and more. Many of these firms have served as pioneers in the global impact-investing context. Double Bottom Line, for example, invests in biotechnology firms including XdX and Labcyte who develop products and processes to improve patient diagnostics and care for developed markets (Double Bottom Line, n.d.). The Omidyar Network employs a flexible capital model that allows traditional grantmaking alongside impact investing. Positioned as a thought leader in the field, Omidyar invests in other global impact investing networks and platforms (Omidyar Network, n.d.). Better Ventures' portfolio includes healthcare data and physician performance transparency platforms (Agathos), customized medical technology for emerging markets (Sisu Global Health), and personalized healthcare planning services (IrisPlans) (Better Ventures, n.d.).

**Example 3:** In Latin America, the field of impact investing is the most developed and active in Brazil, Mexico, and Colombia (LAVCA, 2016). In Brazil, family offices have played a formative role, by creating and/or participating in funds, starting own social enterprises or supporting nonprofits that pilot innovative business models (Rincon, Rotenburg, & Malpass, 2017). Vox Capital, Brazil's leading impact investor, invests in financial and intellectual capital to improve education, health, and financial services for advancing social equality. Within the healthcare space, the firm's macro-objectives explicitly include "Prevention and aid of mental and oral health and control chronic non-transmissible diseases ["NCD"] risk factors and make available easier forms to diagnose and monitor these conditions" (Vox Capital, n.d.)

**Challenges and opportunities:** Impact investing has seen rapid growth in the past decade. Since impact investing can also be made in emerging markets, opportunities for growth in these contexts are high, particularly due to enabling factors such as a growing middle class, greater access to technology and knowledge sharing, increased mobility, and buy-in from multi-national entities (Bafford & Gelfand, 2015). Additionally, a core component of impact investment is measurement, monitoring and evaluation. Measuring social returns and impact, particularly for chronic diseases and NCDs, is a key challenge. Definitions of 'impact', objectives, methodologies, and capacities to measure are varied across the field. One of the underlying challenges limiting the growth of impact investing is the disproportion between the rate of returns and the perceived levels of risk, particularly when engaging with the most marginalized, "bottom-of-the-pyramid" contexts.

### **Blended Finance**

**Overview:** Blended finance is the strategic use of development finance and philanthropic funding to mobilize and channel private capital to emerging and frontier markets (WEF, 2015). This mechanism identifies sectors that advance progress towards the SDGs and in parallel, ensures financial returns are in line with market expectations. Blended finance and impact investing hope to achieve similar objectives, however, the former attempts to bridge potential funding gaps. Development finance and philanthropic capital shift the investment risk, offset transaction costs, share market expertise, and build local capacity. While blended finance is more concentrated in middle-income countries than lower-income countries, for all blended finance to be successful, an appropriate enabling environment is critical. The Blended Finance Taskforce of the Business and Sustainable Development Commission outlines areas of opportunities where G20 countries could facilitate private investment, support

multilateral development banks, foster strategic platforms within country that improve deal flow, policy processes, and quality of infrastructure projects (Oppenheim & Stodulka, 2017)

**Example 1:** The Trust Fund of the Global Financing Facility (GFF) provides catalytic funding to low-income countries linked to International Development Association (IDA) and International Bank for Reconstruction and Development (IBRD) projects and maximizes the impact of health financing across country governments, private sector, and bilateral organizations (GFF, n.d.). It reduces the dependency of one source, thus increasing predictability and sustainability and lessens the risk that accompanies specific health and nutrition issues affecting women, children, and adolescents. As countries graduate from IDA to IBRD, the GFF provides flexible support for medium to long term financing planning and incorporation into national plans and budgets to ensure smooth transitions and progress towards improved population health outcomes.

**Example 2:** In Turkey, the European Bank for Reconstruction and Development (EBRD) backed a 288-million Euro dominated bond to finance a state-of-the-art hospital campus-- the first-ever greenfield infrastructure project bond in the country. A private fund manager, Meridiam, served as an intermediary for this project, called the “Elazig Integrated Health Campus Project.” Through facilitating the engagement with EBRD and the World Bank Multilateral Guarantee Agency (MIGA), an innovative credit-enhancement scheme was developed that ultimately increased buy-in from other investors (OECD, 2018b) (Rosca, 2016).

**Challenges and opportunities:** Like with impact investing, there is a risk that the rate of returns for the investment will be below the market rate – and in blended finance, with the current design, development finance agencies are the owners of this risk. This may increase the murkiness of negotiating a blended finance deal amongst private investors and development institutions. In turn, risk may also fall on other stakeholders including member-states. Additionally, the challenge of monitoring and evaluation of the social impact from the blended finance investments persists. As such, there is a lack of evidence on the positive development impacts which restricts the growth of this mechanism. Opportunities can emerge if development partners adapt more flexible blended finance tools and develop local capital markets, particularly in low-income and fragile ecosystems.

### **Program-related investments and mission related investments**

**Overview:** Program-related investments (PRIs) and mission-related investments (MRIs) allow US foundations to make investments that generate financial returns beyond a traditional grant mechanism. PRIs can be counted towards the foundations minimum annual payout of 5%, returns can be “recycled” as philanthropic capital, and the primary criteria is that the investment must serve a charitable purpose while MRIs do not count towards the annual payout requirement as they further the foundations mission while also seeking a competitive rate of return (Henriques, Nath, Cote-Ackah, & Rosqueta, n.d.). While grants are still the primary focus of most foundations, these mechanisms are emerging as an attractive alternative for catalyzing market-based solutions and crowding in the private sector (Qu & Osili, 2017).

**Example:** The Bill & Melinda Gates Foundation’s “Strategic Investment Fund” makes PRIs in areas related to the foundation’s program strategies across Global Development, Global Health, Global Growth & Opportunity, and US Education (Bill & Melinda Gates Foundation, n.d.). Their criteria for investment are impact, leveraging external capital, scalability and sustainability, right-sized level of

subsidy, balance across their investment portfolio, and internal capacity. One specific example was a volume guarantee for contraceptive implants to stabilize demand for Bayer and Merck and lower unit cost in the world's poorest countries. In the first five years of the agreement, more than 42 million implants have been distributed and the combined guarantees represent nearly \$500M in procurement savings. Both Bayer and Merck committed to extend the pricing for an additional five years beyond the initial term.

**Challenges and opportunities:** Some of the challenges associated with PRIs and MRIs include existing expertise and processes. Program officers within foundations are adept at making and managing grants, but don't have the same level of expertise on other mechanisms. In addition, grantmaking process flows may not include key steps in investments such as legal and financial analysis for debt or equity investments (Henriques et al., n.d.). However, foundations can overcome these challenges by building internal capacity, adjusting processes, and leveraging external support. Furthermore, unlike grants, PRIs and MRIs can generate financial return, which can lead to more sustainable business models and incentivize involvement of the private sector.

### **Preventative or health thematic bonds**

**Overview:** Bonds are a form of IOU or loan where the issuer is indebted to the bondholder. In recent years, socially minded investors have developed products such as green, social impact, and SDG-linked bonds to leverage private finance for investing in addressing social or environmental issues and rewarding achievement of positive indicators or outcomes (Roy, McHugh, & Sinclair, 2018). While social welfare and employment sectors have been the focus of impact bonds in high-income countries, the health sector is emerging as a focus area in developing countries (Gustafsson-Wright & Boggild-Jones, 2018). Preventative or health thematic bonds may emerge as a variation of impact bonds that might drive investment in NCDs in both developed and developing countries over the coming years.

**Example 1:** A major Australian and New Zealand bank, ANZ, announced its first SDG bond of €750 million in February 2018. It's a use of proceeds bond, much like a Green bond but expanded beyond the environment, and according to their press release, "The proceeds are intended to support projects offering broad social, economic and environmental benefits including funding for hospitals, schools, green buildings, clean water, public transport systems or renewable power plants." (ANZ, 2018). Under SDG3, project categories include access to essential services, socioeconomic advancement and empowerment, and affordable basic infrastructure including hospitals, clinics, health care centers, and aged care services.

**Example 2:** In August 2018, the World Bank partnered with the Commonwealth Bank of Australia (CBA) to price its first global blockchain bond, named "bond-i", raising AU\$110 million (The World Bank, 2018b). The bond has a shorter lifetime than usual of just two years, likely due to the experimental nature and need to learn and adapt. The World Bank launched the Blockchain Innovation Lab in June 2017 to understand potential opportunities including health.

**Challenges and opportunities:** Financiers of bonds are still motivated by return on investment, rather than social objectives, which makes them more risk averse than other mechanisms and can cause bond recipients, such as the public and non-profit sectors, to be incentivized by profit (Roy et al., 2018). By thinking about health bonds in a similar fashion to green bonds, there is an option to focus more on the proceed use than the impact. Alternatively, impact bonds would incentivize the measurement and

achievement of specific indicators and outcomes but come with a higher transaction cost and longer lead time that seems high for many investors. However, perhaps leading indicators that could be measured frequently and with rigor might help investors overcome their hesitations around impact bonds for NCDs. In addition, blockchain and the human capital index together could overcome some of the traditional measurement challenges and catalyze more investment in health.

### **Wellness-linked insurance**

**Overview:** Insurance companies have been long trying to redistribute cost based on risk. Car insurance companies have established discounts for safe drivers, low usage, additional trainings, and safety features; a myriad of discounts that favor lower risk. While the health insurance market has offered discounts for non-smokers, a broader set of wellness indicators can be incorporated into health insurance.

**Example:** Vitality is a South African company that saw the gap in this market and the ability to create a virtuous cycle of member incentives that drive healthy behavior that result in insurer savings that are reinvested in savings, and the cycle continues (Discovery, n.d.). Based on evidence and behavioral economic concepts, they developed a range of incentives, from smoothies to insurance discounts, and attached these to behaviors including exercise, eating well, and regular health check. The Vitality Calculator keeps track of the points earned for healthy behaviors and rewards. The model has since been expanded to the US, UK, China, Singapore, and Australia.

**Challenges and opportunities:** Accessibility and game-ability are the primary challenges associated with this model. On the accessibility side, given NCDs disproportionately impact those of lower socioeconomic status (Sommer et al., 2015), more basic health insurance providers may not see the value in incorporating complex incentive programs. While these programs are still valued by higher income customers who are covered under corporate plans or have opted for more comprehensive insurance, there is certainly a question of equity. In addition, as with most incentive-based programs, there is a risk that customers will try to game the system. It is unclear if this has been a major challenge to date. On the flip side, this is an engaging model that touches end consumers directly and focuses on prevention rather than treatment.

### **Implication and Action: The Global Mandate to Advance Innovative Financing on NCDs**

The economic case and public health imperative to address SDG3 and NCDs specifically was discussed with agreement to move the agenda forward by the United Nations General Assembly with a political declaration in September 2018. The High Level Commission on NCDs further recommended the establishment of a Multi Donor Trust Fund for NCDs as part of their 'bold idea' recommendations at this high level event.<sup>1</sup> This Trust Fund will need to be grounded in country support and need, the technical expertise of traditional development partners, and given the dearth of traditional financing, potentially sourced via blended finance approach.

However, to date, little knowledge and evidence exists on what types of 'innovative' and sustainable financing approaches might be feasible in the various LMICs and their varying NCD and capacity

---

<sup>1</sup> [http://www.searo.who.int/entity/partnerships/topics/united\\_nations\\_mdtf/en/](http://www.searo.who.int/entity/partnerships/topics/united_nations_mdtf/en/)

contexts. Therefore, a first phase, to lay the foundation and groundwork of the Fund, should include a landscape analysis not only of feasible financial instruments, but also, a deeper study of what is and is not working in other disease and development areas. As highlighted in the above section on innovative financing approaches, scale, feasibility, and country capacity will be critical components to establish criteria and partnerships.

As the experience with i.e. the recently established Financing Alliance for Health has shown, if critical data and capacity needs for scaling investments do not exist at the local level, then a more traditional, development aid and nationally financed approach will be necessary, given the relatively large transaction costs and measurement criteria for many innovative financing vehicles.

Therefore, what type of financing and investment – and with what expected financial returns, if any – will need careful assessment and partner engagement at the very initiation of the establishment of a global consortium for a Global NCD Fund.

The next stages of innovative financing task force are proposed to lay the technical groundwork, establish the necessary partnerships, and access the necessary learnings. In order to launch a successful fund that addresses the NCD financing challenge at scale necessitates building on traditional approaches but foray into innovative financing approaches with new perspectives and strong partnership approaches.

#### End notes

<sup>1</sup>“The first loss up to 20 percent of invested capital is fully covered, with investors covering 50 percent of any subsequent losses. Repayment is achieved via a combination of milestones and royalties.” (Mundle, 2017)

#### Bibliography

- ANZ. (2018). ANZ Prices first €750m SDG Bond. Retrieved November 11, 2018, from <https://institutional.anz.com/insight-and-research/ANZ-Prices-First-750m-SDG-Bond.html>
- Bafford, B., & Gelfand, S. (2015). Impact Investing in Global Health: Let’s Get Flexible. Retrieved November 11, 2018, from [https://ssir.org/articles/entry/impact\\_investing\\_in\\_global\\_health\\_lets\\_get\\_flexible](https://ssir.org/articles/entry/impact_investing_in_global_health_lets_get_flexible)
- Better Ventures. (n.d.). Better Ventures. Retrieved November 11, 2018, from <http://www.better.vc/>
- Bill & Melinda Gates Foundation. (n.d.). Impact Investing - Strategic Philanthropy. Retrieved November 11, 2018, from <https://sif.gatesfoundation.org/our-strategy/>
- Bloom, D. E., Canning, D., Kotschy, R., Prettner, K., & Schünemann, J. (2018). Health and Economic Growth: Reconciling the Micro and Macro Evidence. *Program on the Global Demography of Aging at Harvard University*. Retrieved from [https://cdn1.sph.harvard.edu/wp-content/uploads/sites/1288/2018/11/162\\_Health-and-Economic-Growth\\_Reconciling-the-Micro-and-Macro-Evidence.pdf](https://cdn1.sph.harvard.edu/wp-content/uploads/sites/1288/2018/11/162_Health-and-Economic-Growth_Reconciling-the-Micro-and-Macro-Evidence.pdf)

- Bloom, D. E., Chen, S., Kuhn, M., McGovern, M. E., Oxley, L., & Prettner, K. (2017). *The Economic Burden of Chronic Diseases: Estimates and Projections for China, Japan, and South Korea* (Working Paper No. 23601). National Bureau of Economic Research. <https://doi.org/10.3386/w23601>
- Bloom, D. E., Chen, S., & McGovern, M. E. (2018). The economic burden of noncommunicable diseases and mental health conditions: results for Costa Rica, Jamaica, and Peru. *Rev Panam Salud Publica*. <https://doi.org/10.26633/RPSP.2018.18>
- Bustreo, F. (2015). WHO | Financing the health Sustainable Development Goal. Retrieved November 21, 2018, from <http://www.who.int/life-course/news/commentaries/financing-health-sustainable-goal/en/>
- Chen, S., Kuhn, M., Prettner, K., & Bloom, D. E. (2018). The macroeconomic burden of noncommunicable diseases in the United States: Estimates and projections. *PLOS ONE*, *13*(11), e0206702. <https://doi.org/10.1371/journal.pone.0206702>
- Dieleman, J. L., Templin, T., Sadat, N., Reidy, P., Chapin, A., Foreman, K., ... Kurowski, C. (2016). National spending on health by source for 184 countries between 2013 and 2040. *The Lancet*, *387*(10037), 2521–2535. [https://doi.org/10.1016/S0140-6736\(16\)30167-2](https://doi.org/10.1016/S0140-6736(16)30167-2)
- Discovery. (n.d.). How Vitality Works. Retrieved from <https://www.discovery.co.za/vitality/how-vitality-works>
- Double Bottom Line. (n.d.). Double Bottom Line Venture Capital. Retrieved November 11, 2018, from <http://www.dblpartners.vc/>
- GFF. (n.d.). Global Financing Facility. Retrieved November 11, 2018, from <https://www.globalfinancingfacility.org/>
- GHIT. (n.d.). Global Health Innovative Technology Fund. Retrieved November 11, 2018, from <https://www.ghitfund.org/>
- GIIN. (n.d.). What You Need to Know about Impact Investing. Retrieved November 11, 2018, from <https://thegiin.org/>
- Gustafsson-Wright, E., & Boggild-Jones, I. (2018, January 17). Paying for social outcomes: A review of the global impact bond market in 2017. Retrieved November 11, 2018, from <https://www.brookings.edu/blog/education-plus-development/2018/01/17/paying-for-social-outcomes-a-review-of-the-global-impact-bond-market-in-2017/>
- Henriques, R., Nath, A., Cote-Ackah, C., & Rosqueta, K. (n.d.). Program-Related Investments. Center for High Impact Philanthropy. Retrieved from <https://www.impact.upenn.edu/wp-content/uploads/2016/04/160415PRIFINALAH-print.pdf>
- LAVCA. (2016). The Impact Investing Landscape in Latin America: Trends in 2014 & 2015. Aspen Network of Development Entrepreneurs (ANDE), Latin American Private Equity & Venture Capital Association (LACVA), LGT Impact Ventures. Retrieved from [https://lavca.org/wp-content/uploads/2018/03/ASPEN\\_summary\\_english\\_DIGITAL.pdf](https://lavca.org/wp-content/uploads/2018/03/ASPEN_summary_english_DIGITAL.pdf)
- Lim, S. S., Rachel L Updike, BA, Alexander S Kaldjian, MSc, Ryan M Barber, BS, Krycia Cowling, PhD, Hunter York, BA, ... Prof Christopher J L Murray, DPhil. (2018, October 6). Measuring human capital: a systematic analysis of 195 countries and territories, 1990–2016 - *The Lancet*. Retrieved November 21, 2018, from [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)31941-X/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31941-X/fulltext)

- McIntyre, D., & Meheus, F. (2014, March 1). Fiscal Space for Domestic Funding of Health and Other Social Services. Retrieved November 21, 2018, from <https://www.chathamhouse.org//node/6831>
- Mundle, D., & Pluess, J. D. (2017). Innovative Finance to Expand Access to Healthcare: Opportunities for Business. *BSR Healthcare Working Group*. Retrieved from [https://www.bsr.org/reports/BSR\\_Healthcare\\_Innovative\\_Finance\\_Final\\_September\\_2017.pdf](https://www.bsr.org/reports/BSR_Healthcare_Innovative_Finance_Final_September_2017.pdf)
- Nishtar, S. (2007). Time for a global partnership on non-communicable diseases. *The Lancet*, 370(9603), 1887–1888. [https://doi.org/10.1016/S0140-6736\(07\)61791-7](https://doi.org/10.1016/S0140-6736(07)61791-7)
- OECD. (2005). OECD countries spend only 3% of healthcare budgets on prevention, public awareness. Retrieved November 21, 2018, from <http://www.oecd.org/general/oecdcountriespendonly3ofhealthcarebudgetsonpreventionpublicawareness.htm>
- OECD. (2010). Obesity and the Economics of Prevention - Fit not Fat. Retrieved November 21, 2018, from <http://www.oecd.org/health/obesity-and-the-economics-of-prevention-9789264084865-en.htm>
- OECD. (2014). FOCUS ON HEALTH: Making Mental Health Count. Retrieved from <https://www.oecd.org/els/health-systems/Focus-on-Health-Making-Mental-Health-Count.pdf>
- OECD. (2017a). A System of Health Accounts 2011 - Revised edition. Retrieved November 21, 2018, from <http://www.oecd.org/els/health-systems/a-system-of-health-accounts-2011-9789264270985-en.htm>
- OECD. (2017b). *Health at a Glance 2017: OECD Indicators*. OECD. [https://doi.org/10.1787/health\\_glance-2017-en](https://doi.org/10.1787/health_glance-2017-en)
- OECD. (2017c). Healthy People, Healthy Planet. Retrieved from <https://www.oecd.org/health/health-systems/Healthy-people-healthy-planet.pdf>
- OECD. (2017d). Overweight and obesity among adults, 80–81. [https://doi.org/10.1787/health\\_glance-2017-21-en](https://doi.org/10.1787/health_glance-2017-21-en)
- OECD. (2017e). Tackling Wasteful Spending on Health. Retrieved November 21, 2018, from <http://www.oecd.org/health/tackling-wasteful-spending-on-health-9789264266414-en.htm>
- OECD. (2018a). Care Needed - Improving the Lives of People with Dementia. Retrieved November 21, 2018, from <http://www.oecd.org/publications/care-needed-9789264085107-en.htm>
- OECD. (2018b). *Making Blended Finance Work for the Sustainable Development Goals*. OECD. <https://doi.org/10.1787/9789264288768-en>
- Omidyar Network. (n.d.). Impact Investing. Retrieved November 11, 2018, from <https://www.omidyar.com/our-work/impact-investing>
- Oppenheim, J., & Stodulka, K. (2017). Mobilizing private finance for sustainable infrastructure (Working paper). *Blended Finance Taskforce, Business and Sustainable Development Commission*, 8.
- Qu, H., & Osili, U. (2017). Beyond Grantmaking: An Investigation of Program-Related Investments by U.S. Foundations. *Nonprofit and Voluntary Sector Quarterly*, 46(2), 305–329. <https://doi.org/10.1177/0899764016654281>

- Rincon, L., Rotenburg, A., & Malpass, R. (2017). Impact Investing in Brazil: A Primer for Families. The ImPact. Retrieved from [http://theimpact.org/wp-content/uploads/2017/06/TheImPact.BrazilPrimer.20170626.ENG\\_.LowRes.pdf](http://theimpact.org/wp-content/uploads/2017/06/TheImPact.BrazilPrimer.20170626.ENG_.LowRes.pdf)
- Rosca, O. (2016). Unique financing model as EBRD backs Elazig hospital PPP project in Turkey. *European Bank for Reconstruction and Development*. Retrieved from [//www.ebrd.com/news/2016/unique-financing-model-as-ebrd-backs-elazig-hospital-ppp-project-in-turkey-.html](http://www.ebrd.com/news/2016/unique-financing-model-as-ebrd-backs-elazig-hospital-ppp-project-in-turkey-.html)
- Roy, M. J., McHugh, N., & Sinclair, S. (2018, May 1). A Critical Reflection on Social Impact Bonds. Retrieved November 11, 2018, from [https://ssir.org/articles/entry/a\\_critical\\_reflection\\_on\\_social\\_impact\\_bonds](https://ssir.org/articles/entry/a_critical_reflection_on_social_impact_bonds)
- Sommer, I., Griebler, U., Mahlknecht, P., Thaler, K., Bouskill, K., Gartlehner, G., & Mendis, S. (2015). Socioeconomic inequalities in non-communicable diseases and their risk factors: an overview of systematic reviews. *BMC Public Health*, *15*, 914. <https://doi.org/10.1186/s12889-015-2227-y>
- The World Bank. (2018a). Human Capital Index and Components, 2018 [Text/HTML]. <http://www.worldbank.org/en/data/interactive/2018/10/18/human-capital-index-and-components-2018>
- The World Bank. (2018b). World Bank Prices First Global Blockchain Bond, Raising A\$110 Million [Text/HTML]. Retrieved November 11, 2018, from <http://www.worldbank.org/en/news/press-release/2018/08/23/world-bank-prices-first-global-blockchain-bond-raising-a110-million>
- Vox Capital. (n.d.). Vox Capital: Investment Thesis. Retrieved November 11, 2018, from <http://www.voxcapital.com.br/english>
- WEF. (2015, July 14). ReDesigning Development Finance Initiative. Blended Finance Vol. 1: A Primer for Development Finance and Philanthropic Funders. Retrieved from [http://www3.weforum.org/docs/WEF\\_Blended\\_Finance\\_A\\_Primer\\_Development\\_Finance\\_Philanthropic\\_Funders\\_report\\_2015.pdf](http://www3.weforum.org/docs/WEF_Blended_Finance_A_Primer_Development_Finance_Philanthropic_Funders_report_2015.pdf).
-