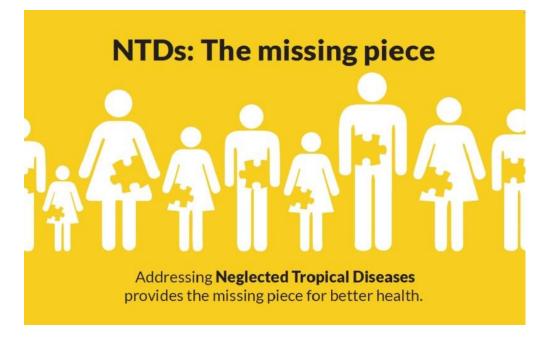
Written Submission for the Pre-Budget Consultations in Advance of the 2020 Federal Budget:

Addressing Neglected Tropical Diseases as the Missing Piece for Better Global Health

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Canadian Network for NEGLECTED TROPICAL DISEASES



We call on Canada to fill important gaps and reduce Neglected Tropical Diseases in sub-Saharan Africa thereby improving the lives of millions of people: it is a social justice, reproductive health and human rights issue.

Recommendation 1: That the Canadian government include the control and elimination of neglected tropical diseases (NTDs) as a component in its overseas development aid policy and strategies, in alignment with the Sustainable Development Goals, the World Bank DeWorm Africa Initiative and the Canadian Feminist International Assistance Policy in order to improve health and educational outcomes, building human capital globally.

Recommendation 2: That the government provide funding in the amount of CAD \$ 50 million over 5 years to facilitate the treatment of 21 million children in sub-Saharan Africa with donated medicines for soil-transmitted helminths and schistosomiasis.



Neglected Tropical Diseases

Neglected Tropical Diseases (NTDs) are a group of 20 diseases that afflict many of the poorest people in the world. Over 1.6 billion people are affected by NTDs, many of whom need treatment for multiple NTDs on an annual basis. NTDs are a significant cause of illness, death, disfigurement and disability in sub-Saharan Africa, where over 600 million people are in need of treatment for at least one NTD. These diseases have devastating effects over the life-course of men and women, adolescents and children, perpetuating intergenerational cycles of poverty. Women and girls are disproportionately impacted by NTDs, due to biological, social and cultural factors.

As a result of the collaborative efforts of the World Health Organization (WHO), national governments, pharmaceutical partners, donors, Non-Governmental Organizations (NGOs) and researchers, 1 billion people received donated treatments for NTDs in 2017.¹ Through these unprecedented pharmaceutical donations, most NTD treatments are provided free of cost to national governments for mass distribution through community-based and school-based platforms. This has resulted in steady progress toward targets set by the WHO in 2012 and outlined in the London Declaration.² Elimination of at least one NTD has been achieved by 28 countries since 2012.³

Despite this progress, more than one billion of the world's poorest people in 149 countries remain at risk of NTD infection.⁴ The World Health Organization is developing its next NTD Global Roadmap, which will chart the milestones needed to reduce the impact of these diseases by 2030, in alignment with Sustainable Development Goal 3.3.

We call on Canada to provide attention and investment of resources to contribute to the achievement of these global NTD targets. This is especially urgent given the global crises brought by climate change. With changes in global temperatures, rainfall and weather patterns, the geographical range of insects and animals that transmit NTDs is changing. This represents a risk of increased exposure for newly exposed populations and difficulty in eliminating these diseases.⁵ Migration due to climatic events will impact risk of exposure, challenge control efforts and potentially reverse progress made. Therefore current NTD elimination targets must be met in order to mitigate the increasing impact of climate change. We recommend Canadian investment in NTDs to accelerate efforts and complement current global strategies.

¹ Uniting to Combat NTDs. Progress and scorecards [Internet]. 2019 [cited 2019 Jul 30].

² Uniting to Combat Neglected Tropical Diseases. London Declaration on Neglected Tropical Diseases [Internet]. 2019 [cited 2019 Jul 30].

³ Uniting to Combat Neglected Tropical Diseases. Progress and scorecards [Internet]. 2019 [cited 2019 Jul 26].

⁴ World Health Organization. Neglected Tropical Diseases [Internet]. World Health Organization; 2019 [cited 2019 Jul 30].

⁵ World Health Organization. Investing to Overcome the Global Impact of Neglected Tropical Diseases [Internet]. Geneva, Switzerland; 2015 [cited 2019 Aug 2].



1) Investment in the global control of NTDs aligns with the current Canadian government policy of overseas development aid.

Achieving Sustainable Development Goals (SDGs): Canada has committed to the SDGs, which include reduction in the number of people requiring interventions against NTDs (SDG 3.3). Control of NTDs also contributes to SDGs 1 (Reducing Poverty), 4 (Quality Education), 5 (Gender Equality) and 10 (Reducing inequality). By contributing to the control of NTDs, Canada supports the achievement of key SDGs, which will enable individuals and communities to escape cycles of poverty and facilitate the well-being of vulnerable groups. Studies indicate that achievement of global NTD elimination targets would prevent approximately 148 million cases of disability and avert 5 million deaths between 2011 and 2030.⁶

Promoting Education: Canada is a leader in supporting the education of children, especially those living in vulnerable conditions. During its G7 presidency, Canada, together with other countries and the World Bank, announced an investment of close to \$3.8 billion CAD to improve access to education for vulnerable girls. This commitment includes removing barriers to education and supporting girls' education so that they complete 12 years of schooling. Supporting education must include support for the health of students. Investment in control of NTDs, such as soil-transmitted helminths (intestinal worms) and schistomomiasis, supports the Canadian government's investments in education. Deworming has been shown to increase school attendance⁷ and improve academic performance of girls.⁸

Supporting Economic Empowerment: Canada's Feminist International Assistance Policy (FIAP) prioritizes economic development as a strategy to reduce poverty. Investment in eliminating NTDs improves the economic wellbeing of millions of people, enabling them to avert poverty caused by costs arising from disability and medical care. Eliminating NTDs removes the financial hardship on poor households. Progress toward elimination of NTDs would result in reduction of out-of-pocket health expenses and reduction in lost wages for affected individuals; the amount of benefit is estimated to be (I\$) 657 billion International dollars between 2011 and 2030 (an average of (I\$) 33 billion per year).⁹

⁶ de Vlas SJ, Stolk WA, le Rutte EA, Hontelez JAC, Bakker R, Blok DJ, et al. Concerted Efforts to Control or Eliminate Neglected Tropical Diseases: How Much Health Will Be Gained? Liang S, editor. PLoS Negl Trop Dis [Internet]. 2016 Feb 18 [cited 2019 Jul 26];10(2):e0004386.

⁷ Miguel E, Kremer M. Worms: Identifying impacts on education and health in the presence of treatment externalities [Internet]. Vol. 72, Econometrica. 2004 [cited 2019 Jul 25].

⁸ Baird S, Hicks JH, Kremer M, Miguel E. Worms at Work: Long-run Impacts of a Child Health Investment. Q J Econ [Internet]. 2016 Nov 1 [cited 2019 Jul 25];131(4):1637–80.

⁹ Fitzpatrick C, Nwankwo U, Lenk E, de Vlas SJ, Bundy DAP. An Investment Case for Ending Neglected Tropical Diseases [Internet]. Holmes K, Bertozzi S, Bloom BR JP, editor. Major Infectious Diseases. The International Bank for Reconstruction and Development / The World Bank; 2017 [cited 2019 Jul 26].



Empowering Women and Girls: NTDs have been shown to disproportionately impact women and girls as a result of biological and socio-cultural factors. Women with a chronic form of schistosomiasis affecting the reproductive system (female genital schistosomiasis) have a greater risk of infertility and of contracting HIV when they become sexually active.¹⁰ Women are two to four times more likely to lose vision from blinding trachoma, due in part to their role as care-givers for children.¹¹ Furthermore, women can be restricted in opportunities for education and income-earning due to the culturally-assigned role as a care-giver for family members with NTDs. Stigma and discrimination often result from disability and deformity caused by NTDs, like leprosy and lymphatic filariasis (known as elephantiasis). Women may suffer more from stigma as they can be labelled as "unmarriagable" in their communities due to disability. Current FIAP indicators also include provision of micronutrient supplementation. This must be complemented by the inclusion of de-worming medication to avoid the possibility of providing micronutrients to "feed the worms." This is consistent with recommendations from the WHO to deworm preschool children, school-age children and women of reproductive age.¹²

Alignment with Geographical Priorities: The federal government has committed a substantial percentage of its international aid to sub-Saharan Africa. Almost 40% of the global burden of NTDs occurs in Africa.¹³ In 2017, only 69% of people in Africa who required treatment for one NTD received it, leaving 192 million people without the needed treatment.¹⁴ With available donations of necessary medicines, an investment of resources to close this gap and deliver treatments aligns with Canada's priorities in sub-Saharan Africa.

Alignment with Canadian Global Health Strategies: On June 4, 2019, the Prime Minister of Canada announced funding to support the health and rights of women, adolescents and girls. Investment in NTDs aligns with this commitment and strengthens current Canadian global health strategies. By investing in programs that provide treatment, women can experience safer pregnancies, have better birth outcomes and are protected from the long-term debilitating consequences of NTDs. Ensuring women, adolescents and girls have access to these free treatments is an investment that builds human capital.

¹⁰ Mbabazi PS, Andan O, Fitzgerald DW, Chitsulo L, Engels D, Downs JA. Examining the Relationship between Urogenital Schistosomiasis and HIV Infection. Carvalho EM, editor. PLoS Negl Trop Dis [Internet]. 2011 Dec 6 [cited 2019 Jul 26];5(12):e1396.

¹¹ Courtright P, West SK. Contribution of Sex-linked Biology and Gender Roles to Disparities with Trachoma. Emerg Infect Dis [Internet]. 2004 Nov [cited 2019 Jul 30];10(11):2012.

¹² World Health Organization. Soil-transmitted helminth infections [Internet]. 2019 [cited 2019 Jul 26].

¹³ World Health Organization Regional Office for Africa. Neglected Tropical Diseases (NTD) [Internet]. 2017 [cited 2019 Jul 30].

¹⁴ Uniting to Combat Neglected Tropical Diseases. Africa and neglected tropical diseases - Profile [Internet]. 2019 [cited 2019 Jul 30].



2) Investment in NTDs is One of the Best Buys in Public Health

Global NTD control programs provide opportunity for investment that is evidence-based and costeffective.

Robust Data Collection and Monitoring: Global efforts to address NTDs are facilitated by robust data collection used to plan and manage elimination programs in endemic countries. The NTD index developed by the WHO monitors country-level data. WHO's Expanded Special Program for Elimination of Neglected Tropical Diseases (ESPEN) (http://espen.afro.who.int/) provides a data-sharing platform used to coordinate the control of five significant NTDs in the African region. In 2018, the African Union made a public commitment to include NTDs into the African Leaders Malaria Alliance (ALMA) scorecard.

Return on Investment: NTD programmes are highly cost-effective and are considered one of the best buys in public health today with <u>every dollar invested releasing US \$26 of donated drugs</u>.¹⁵ <u>Furthermore, every dollar invested in control of NTDs between 1990 to 2030 results in an average net benefit of \$28 to affected individuals</u>.¹⁶

Effective Global Partnerships: Investments in control of NTDs are maximized by the existence of coordinated global partnerships between the WHO, bilateral donors (UK, Germany, US, Japan), national governments in endemic countries, private sector partners, philanthropic donors, civil society organizations, and researchers. <u>Over the history of the program, donated medications worth US\$17</u> <u>billion have been contributed by industry partners</u>.¹⁷ This global partnership will increase the impact of any Canadian investment in NTD programs. Canada is uniquely positioned to join this international partnership, leveraging its commitment and experience in women's and girls' health.

¹⁵ Uniting to Combat NTDs. Reaching a Billion: Ending Neglected Tropical Diseases: A gateway to Universal Health Coverage Fifth progress report on the London Declaration on NTDs 2 [Internet]. 2019 [cited 2019 Jul 26].

¹⁶ Fitzpatrick C, Nwankwo U, Lenk E, de Vlas SJ, Bundy DAP. An Investment Case for Ending Neglected Tropical Diseases [Internet]. Holmes K, Bertozzi S, Bloom BR JP, editor. Major Infectious Diseases. The International Bank for Reconstruction and Development / The World Bank; 2017 [cited 2019 Jul 26].

¹⁷ Uniting to Combat Neglected Tropical Diseases. 5th progress report: Reaching a Billion [Internet]. 2019 [cited 2019 Aug 2].