



Addressing the Double Disease Burden in Malawi

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R4D Research Grant Program

- The Research for Development (r4d) program of the Swiss National Science Foundation is aimed at researchers in the global north and in developing and emerging countries who wish to execute joint research projects on global issues.
- The program has three goals:
 - to generate scientific knowledge and research-based solutions for reducing poverty and global risks in least developed, low- and middle income countries;
 - to offer national and international stakeholders methods and options for finding integrated, holistic approaches to solving problems;
 - to enhance scientific skills and know-how in dealing with the complexity of global problems for the benefit of societies in developing and emerging countries.

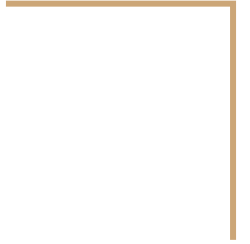
What is the Double Disease Burden?

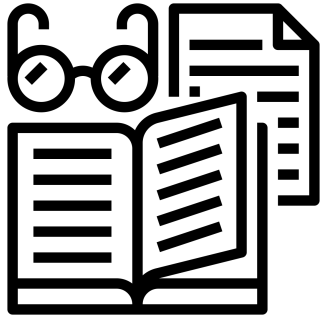
- Many countries in the global south face the double disease burden.
- This is when a resource-constrained healthcare system is forced to address both infectious diseases and chronic diseases simultaneously.
- The physical effects of these infectious diseases early in life sometimes make populations particularly susceptible to chronic diseases such as Hypertension (HT), Cardiovascular disease (CVD), and Type 2 Diabetes (T2D).

Project Overview

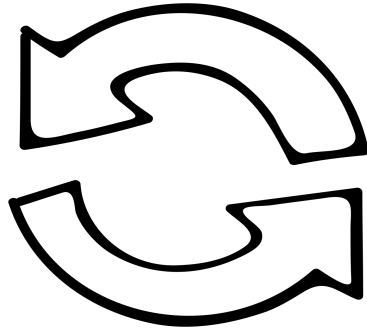
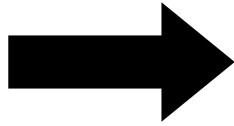
- My task was to draft a policy brief on the double disease burden in Malawi that is to be presented to relevant stakeholders at the R4D Synthesis Workshop at Kamuzu University of Health Sciences this November.
- First, I conducted a literature review of research findings from the R4D grant.
- After grouping the literature on the double disease burden together, I systematically synthesized the research before drafting the information into a policy brief.

Methods

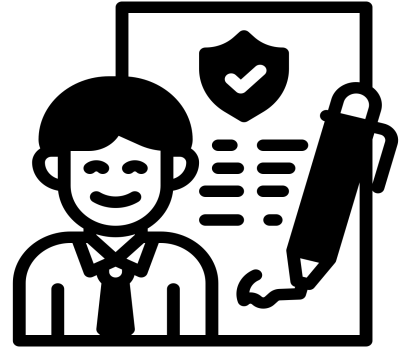
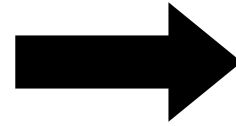




Literature Review



Synthesis



Draft Policy Brief

Source	Aims	Methods	Population	Conclusion	Evaluation	Location
<p>Food Perceptions and Dietary Changes in Peru</p>	<p>Study perspective of locals on diet/food choices to gain a better understanding on how to attack NCDs and NTDs.</p>	<p>Focus groups consisting of caregivers, head of households, and those with T2D, HT, and NCC.</p>	<p>Rural Peruvians. They face a double burden of disease. Specifically T2D and HT coupled with NCC, an infectious disease related to undercooked pork.</p>	<p>Efforts to educate people of dietary changes that must be made to combat T2D, HT, and NTD must be contextualized to the experiences and perspectives of local populations.</p>	<p>Education alone is not enough to change dietary behavior. Incentivizing family collaboration, contextualizing advice on healthiness, and making healthy options trustworthy and available are all very important also.</p>	<p>Peru</p>

Methods: Synthesis Table

<p><u>Partnerships in Global Health and Collaborative Governance</u></p>	<p>Analyze collaboration between Northern and Southern countries in health care delivery.</p>	<p>Projects of the Division of Tropical and Humanitarian Medicine were analyzed using the Emerson framework.</p>	<p>Division of Tropical and Humanitarian Medicine at University of Geneva</p>	<p>Global partnerships are needed to effectively address the double disease burden. Both the North and South will benefit from this collaboration as health becomes more globalized. NCDs are an international problem that requires solutions formulated at the int'l level.</p>	<p>Partnerships between the global North and South are integral to addressing the double burden of disease. Leaders from the North and South must seek collaboration with one another, financial, technical, clinical, academic, etc.</p>	<p>Switzerland</p>
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Methods: Synthesis Table

<p>Aging, non-communicable diseases and old-age disability in low- and middle-income countries</p>	<p>Convince that aging populations are a success story but also a burden on resource constrained health systems of LMICs. Poor health through life due to continuous exposure and low SES exacerbate the issue of NCDs in addition to double burden.</p>	<p>Research based policy brief type.</p>	<p>Aging populations in LMICs</p>	<p>Longitudinal data is needed to understand the populations that we are working with. This data will make it possible to compare different countries' outcomes based on objective health measures. And allow policymakers to specifically tailor interventions.</p>		<p>LMICs</p>
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Methods: Synthesis Table

Themes	Food Perceptions and Dietary Changes in Peru	Partnerships in Global Health and Collaborative Governance	High Quality Health Systems:Time for Revolution	“If You Counsel Properly With Love, They Will Listen.”	Moving from formative research to co-creation of interventions
International Partnership/ Collaboration	Researchers from American universities went to Peru to collect this data and create this project	GUH is a leader in North/South collaboration that has resulted in many positive outcomes on the NTD/NCD front. Collaboration should be studied and well-understood to foster new partnerships in the future.	Listening to and collaborating with local leaders/stakeholders/populations is integral to strengthening health systems in LMICs. A different approach to research/ funding is required for this.		Include all stakeholders early in the research process, especially when selecting potential interventions. This ensures that interventions will be practically applicable to the context. Researchers' priorities must align with the stakeholders needs, preferences, and resources.

Methods: Theme Table

Theme	Food Perceptions and Dietary Changes in Peru	Partnerships in Global Health and Collaborative Governance	High Quality Health Systems: Time for Revolution	inequalities in the use of secondary prevention of cardiovascular disease by socioeconomic status
Role of the Family/Patients	Implementation of dietary changes was closely related to family and social circles implementing those changes or ignoring health professionals recs. Knowing family structure/local responsibilities of members will assist in creating practical solutions		“new skills, attitudes, and culture among health-care providers and new, more active roles for patients and families in shaping, evaluating, and delivering the care they need.”	Men and rural dwellers are less likely to adhere to HT care, both in Ghana in Mexico.

Methods: Theme Table



Findings and Policy Recommendations



Findings: Patient Education

- Half the battle in combating the double disease burden is educating the population about prevalent diseases, their causes, and interventions they can implement so they can take ownership of advancing their own health.
- Education includes integral aspects such as teaching about the importance of dietary changes in preventing chronic diseases, emphasizing adherence to secondary prevention, and disseminating knowledge about diseases to the public.
- Advancing health education can save valuable resources the healthcare system could utilize elsewhere.

Findings: Patient Education (cont.)

- Some diseases can be treated effectively when those burdened by them are taught how to manage them.
- Educational efforts must be contextualized to the perspectives and experiences of local populations (ibid).
- Education alone is not sufficient to change health behaviors!

Educational Recommendations

- Health literacy campaigns are needed to spread knowledge about chronic diseases: what they are, how they're caused, who is most susceptible to them, and what interventions (such as dietary changes and seeking care) can prevent them. Efforts to educate must be applicable to the experiences of people.
- In addition to public education campaigns, health care workers must be trained in patient education to ensure those diagnosed with NCDs are receiving high quality information about their disease, its timeline, and management of it. In situations where workers are too resource or time constrained to accomplish this, laypeople can also be trained to educate patients about the diseases.

Findings: Family Collaboration

- Families should also be brought into the fold when their family members are burdened with these conditions.
- Including family in educational and clinical efforts could make dietary changes more socially acceptable and help those burdened by chronic diseases build social networks that can hold them accountable in adhering to secondary prevention.
- Incentivizing and emphasizing family collaboration will also give patients more familial support, instead of social isolation.

Family Collaboration Recommendations

- Family collaboration should be emphasized and incentivized during diagnosis, patient education, and throughout the process of treating those burdened by chronic diseases. This is important to ensure adherence to treatment and lifestyle changes that combat disease prevalence. It also will increase empathy within the social networks of those that face these diseases.

Findings: Secondary Prevention

- Hypertension is a prevalent chronic disease among mature adults in Malawi and is a leading risk factor for cardiovascular disease worldwide.
- To combat HT, increased targeted screening is needed amongst populations known to be vulnerable to the condition.
- Initial diagnosis is the primary hurdle, and those diagnosed were found to be more likely to bring their blood pressure under control.
- In addition to targeted HT screenings, there are extremely effective medications for HT that are severely underutilized in Malawi.

Secondary Prevention Recommendations

- Targeted screenings for prevalent chronic diseases amongst vulnerable populations are needed to diagnose those burdened.
- Investment must be made to make secondary prevention more widely available in Malawi. Making secondary prevention available would improve quality of life and extend lives, but it could also entrench disparities already present if not targeted at poorer, more vulnerable communities.

Findings: The Need for Continued Research

- There is a wide gap in research and knowledge on the double disease burden in Malawi. This problem hinders the ability of policymakers to draft effective and practical policy that matches local contexts.
- Fortunately, the chronic disease burden is globalized, so there are incentives for academic, clinical, technical, and financial collaboration between the global north and countries like Malawi in the global south.
- Focus and investment must be directed to efforts that emphasize the voices, interests, and experiences of local stakeholders early on.

Research Recommendations

- Research intended to measure, understand, and provide solutions for the double disease burden should be incentivized to continue. Malawian researchers and students interested in this research should be especially incentivized to do this work, as they know the context better than any outside researcher could..

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Questions? Comments?