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Policy brief for research and action on multimorbidity in low- and middle-income countries

GACD
GLOBAL ALLIANCE FOR CHRONIC DISEASES
AN ALLIANCE OF HEALTH RESEARCH FUNDERS

Global Alliance for Chronic Diseases
NCD Multimorbidity Working Group

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Non-Communicable Diseases Multimorbidity Working Group

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The increasing recognition of the **global burden of multimorbidity** and the relative absence of evidence on this topic, make it imperative for funders, decision makers and researchers to **prioritise this theme**.

We need to move from researching specific diseases only, to understanding the **interactions between multiple diseases**, and to finding **integrated approaches** that strengthen the quality of health care at all levels. This is particularly true in low- and middle-income countries.

The **COVID-19 pandemic has further highlighted the urgency** of addressing poor health outcomes of those with multi-morbid conditions.

Objective

The objective of this policy brief is to highlight the importance of multimorbidity to funders and decision-makers in low and middle-income countries (LMICs).

The brief provides arguments to stimulate research and service delivery beyond a disease-specific focus and for changing the dominant funding model to promote multimorbidity research. It highlights urgent health research gaps in LMICs and provides directions for action within health systems.

This brief represents the views of authors and contributors who are working on Global Alliance of Chronic Disease (GACD)-affiliated research projects on non-communicable diseases (NCDs) in LMICs and builds upon the GACD Researcher's Statement on Multimorbidity (1).

This brief is publicly available and can, with appropriate acknowledgement, be used as a tool for advocacy and strategic discussions about research and management of multimorbidity. The brief may be adapted for different country settings.

PART 1: Multimorbidity needs more attention, more evidence, and more funding

The burden of multimorbidity in low and middle-income countries is growing

Multimorbidity, the co-existence of two or more long-term physical or mental disorders in a person, has been recognised as an important health system and service challenge in high-income countries (HICs) for decades (2). It is increasingly visible, for example, in the European research and policy agenda (3). The global prevalence of multimorbidity was estimated at 7.8% in 2013 (4), and is rising, particularly in LMICs and in underserved communities (5). Health systems in LMICs are still grappling with infectious diseases and the growing burden of specific high profile non-communicable diseases such as diabetes and hypertension. Although these diseases often occur together in the same persons, health systems in LMICs have limited capacity to address the challenges of multimorbidity, to integrate disease management and develop responsive care for people with multiple conditions.

The problems of multimorbidity in LMICs have dimensions which are not well understood, as most multimorbidity research to date has taken place in HICs. Clustering of multiple diseases within populations in LMICs, and the links with social determinants of health are likely to differ from those in HICs. For instance, dominant clusters of multimorbidity in LMICs include a combination of long-term infectious conditions (such as Tuberculosis and HIV/AIDS) and NCDS that often start at a younger age than in HICs. Exploratory studies suggest that the profile of people with multimorbidity differ between LMICs and HICs, in terms of age, socio-economic status, gender and ethnicity (4).

Multimorbidity worsens health outcomes and increases costs

Co-morbid chronic disease may also increase the morbidity and mortality for other diseases, a concern during the COVID-19 pandemic. A recent meta-analysis identified hypertension, diabetes, chronic obstructive pulmonary disease, cardiovascular disease, and cerebrovascular disease as significant risk factors for COVID-19 patients (6). To improve the health outcomes of the current and future pandemics, we should prioritise research on multimorbidity.

Multimorbidity increases health care associated costs for the health system and for the patients, due to more complex treatment, treatment inefficiencies and disease complications. This, however, is often not visible since many epidemiological and economic analysis focus on single diseases (7). Such costing analyses drive disease-specific funding in many LMICs, even though the global discourse advocates for strengthening health systems, strong primary health care systems, and equitable access to quality health care through the Universal Health Coverage approach (8).

The siloed approach of disease management in LMICs and elsewhere, has led to disease specific population gains, but may also increase cost and contribute to inefficient use of already limited funds available for prevention, diagnosis and treatment (9). Recent advances in medical science have led to improved survival for infectious and chronic diseases, leading to increasing number of people living with multimorbidity. The lack of proper health service responses leads to more people with multimorbidity who have prolonged periods of sickness and increased suffering and treatment burden.

Lack of evidence and knowledge

Multimorbidity research priorities have been identified as a key consideration in various international fora, including by the Academies of Medical Sciences (10, 11) and through the GACD Multimorbidity statement(1). The following questions require a critical LMIC-specific research perspective:

1. **Understanding the size, distribution, causal factors, and interactions of multimorbidity.**
   - What are the most important clusters of multi-morbid conditions at the population level in different LMICs? This includes descriptive epidemiology of the size, distribution, and risk factors for the multimorbidity, and research on the associations of highly prevalent multimorbidity clusters with social, demographic, and economic and environmental determinants. This will require longitudinal research to understand the temporality of co-morbidity occurring over a person's life course.
   - What are the interactions between the dominant diseases and their risk factors, including the role of, and consequences on mental health within multimorbidity?
2. **Development and implementation of evidence-based strategies for prevention and treatment of multimorbidity.**
   - What are the effective interventions to prevent, detect and manage multimorbidity at population and individual patient-level in LMICs?
   - How can such multimorbidity strategies be optimised to address the needs of target groups, and vulnerable people?
   - What core outcome indicators for multimorbidity are appropriate and feasible for LMICs?
   - How can the routine monitoring and evaluation systems be adapted to effectively monitor multimorbidity service delivery and health status outcomes?
   - How can the effects of interventions on health and costs best be modelled beyond individual diseases, to be appropriate for multimorbidity?
   - To optimise design, implementation, and impact of interventions, how can we engage patients and caregivers in multimorbidity research and in management strategies in LMICs?

PART 2: Health systems can take action now at a national level

While research is ongoing and new evidence emerges, health system leaders can take action now, to adapt their health systems. They can review their current approaches for its suitability, implement new and proven prevention and treatment strategies, monitor, and evaluate these processes and understand the factors contributing to successful implementation.

We provide the following directions for change:

1. **Capacity development.**

   Developing tools to build capacity in generic cadres of health professionals and multidisciplinary teams to address the needs of people with multimorbidity, for instance through guidelines and training for common comorbidities, for identifying treatment risks and for interprofessional collaboration.

2. **Equipping health care services to deliver integrated care for people with multimorbidity.**

   This involves health service re-organisation to adapt and integrate health care models. Health service re-organisation includes strengthening primary health care, joint clinics, and multi-disciplinary teams, re-organisation of patient streams, integrated patient care follow-up and comprehensive and integrated approaches to self-management support.

3. **Reorganising the national health system building blocks to make integrated care possible.**

   This includes modernising and integrating health information systems, integrated health system financing modalities, and strengthening integrated governance and management of the health care system.

4. **'Whole of health' collaborations.**

   Collaborating with multiple sectors, such as the employment sector, and the optimal use of the capacity within primary and community health care sectors. This needs a 'whole health' approach, to identify and address underlying causal factors.

5. **Advocating for and supporting processes for communities, patients, and care givers to contribute to improved health care in LMICs.**

   Recommendations include guidance that providers can use to help achieve goals set by patients; embracing approaches to support self-management; supporting greater communication and collaboration across healthcare providers as well as between healthcare providers and patients. This will require investing more efforts in health promotion and disease prevention (12) including extending community-based support services, and targeting vulnerable populations.

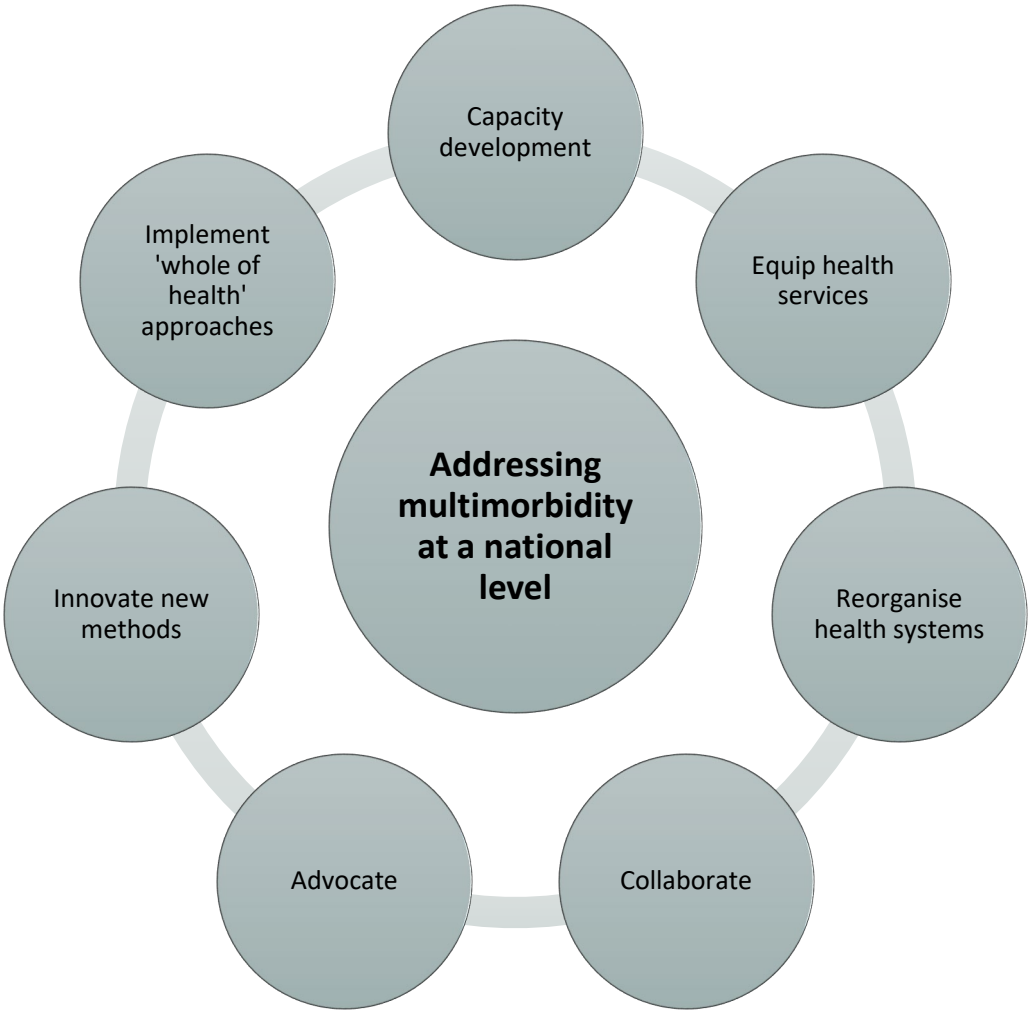
6. **Innovating new methods.**

   Developing methods to collect data on how to monitor multimorbidity and the health status of the population, considering different disease clusters. Multimorbidity outcome indicators should be included into routine monitoring. This will strengthen the health information systems in LMICs, to become more comprehensive.

7. **Implementing 'whole of health' approaches.**

   Supporting the implementation of a 'whole health' approach to health promotion and illness prevention policy development, to address social determinant of health, including psychosocial, physical, and economic determinants.

Figure 1 Summary of actions for health systems leaders to address multimorbidity at a national level.



PART 3: Space for adaptable part, for specific context or audience

For those who would like to use this brief to inform local country-level discussion and advocacy on multimorbidity, you are welcome to add locally relevant material here.

Please state clearly who the country-specific notes are authored by and note that the authors of the main GACD policy brief do not take responsibility for the additional content in Part 3.

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About the Global Alliance for Chronic Diseases

Who we are

The Global Alliance for Chronic Diseases (GACD) is the first collaboration of major research funding agencies to specifically address chronic, non-communicable diseases. Together, the members of the alliance represent 80% of global public funding for health research.

Our focus

Implementation science | Non-communicable diseases | Low- and middle-income countries and vulnerable populations in high-income countries

> "Implementation science examines what works, for whom and under what circumstances, and how interventions can be adapted and scaled up in ways that are accessible and equitable."
>
> ~ GACD Strategy Board

Our mission

To reduce the burden of chronic non communicable diseases (NCDs) in low-and middle-income countries, and in indigenous populations facing conditions of vulnerability in high-income countries, by building evidence to inform national and international NCD policies and contribute to the achievement of the Sustainable Development Goals.

Our strategic objectives

- Investing in impactful implementation science research.
- Building implementation science capacity and capability in relation to NCDs.
- Facilitating collaborations and partnerships to support GACD impact.

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