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Achieving Reductions in Non-Communicable Diseases by 2030: Pathways to accelerate progress towards Sustainable Development Goal target 3.4.

Summary

The United Nations (UN) Sustainable Development Goal (SDG) target 3.4 requires a one-third reduction in premature mortality from non-communicable diseases (NCDs) by 2030 for all Member States. NCDs include four main types of conditions—cardiovascular diseases, cancer, chronic respiratory diseases, and diabetes. Mortality rates have largely remained steady or even increased in some countries since 2010. In order to help countries achieve target 3.4, a framework for NCD investment is proposed with 21 cost-effective and equity promoting interventions, which include 15 clinical interventions and six intersectoral policies (see Table 1 in the original text). While ambitious, implementing this framework remains realistic and would allow most low-income and middle-income countries

(LMICs) to achieve SDG target 3.4 by 2030, including almost all world regions and 55% of countries; other countries may fall short of the target due to recent adverse health trends and health system constraints. These interventions intentionally have the largest impact on cardiovascular (CV) disease-related outcomes, as ischemic heart disease and stroke account for the greatest proportion of NCD mortality for those aged 30-70 in nearly all countries. Implementing these interventions would cost \$140 billion USD in new spending from 2023-2030 but would result in an estimated \$2.7 trillion in **net** economic gain, with benefits exceeding costs up to 19 times. While these costs would represent a substantial increase in spending on NCDs in many countries—on average, an additional 2-3 USD per person per year—they would prevent 39 million deaths. Even though countries have considerable variations in NCD epidemiology and

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Key findings

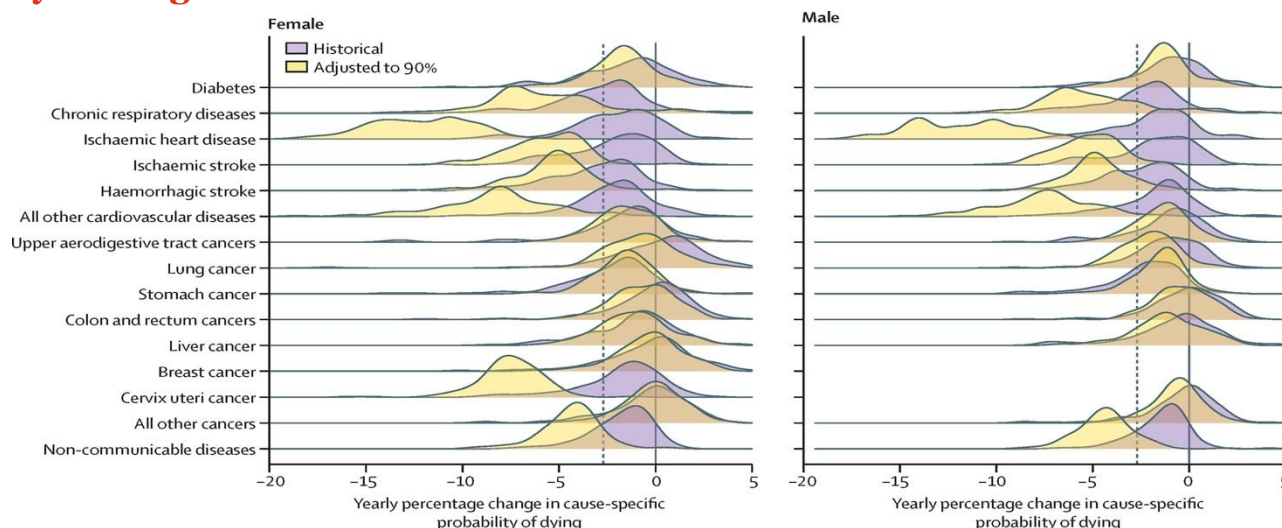


Figure 1: These graphs show the yearly change in mortality (probability of death) for each NCD outcome after scaling up NCD interventions to cover 90% of the population in all 123 low- and middle-income countries. The purple curves mark historical trends in mortality from 2015-2019, while the yellow curves mark the expected yearly change in mortality from 2015-2030, if interventions are implemented in 2023. The chance of dying from any NCD decreases by -2.67% per year (the dashed line), leading to a one-third reduction in all-cause mortality after 15 years.

health system capacity, intersectoral policies to reduce tobacco use, alcohol use, and unhealthy diets are relevant and essential in all countries and can reduce the need for costly downstream clinical services. Full implementation of these six policies globally would account for two-thirds of the total mortality impact of the recommended package and forgoing these policies would require countries to triple spending on clinical interventions to achieve the SDG 3.4 target.

Other Considerations

Most of the proposed clinical interventions require a highly trained, developed healthcare workforce that can deliver longitudinal care. Thus, it remains imperative for advocates and policy makers to develop a long-term strategy for NCDs that emphasises feasibility and

sustainability. Such an approach must align with national health system strengthening and universal health coverage agendas. Moreover, these interventions must be viewed as an essential component of primary health care and not as new, siloed disease initiatives.

Limitations

This analysis focuses primarily on reducing NCD premature mortality only. There are many other interventions that reduce NCD-related disability, provide palliation, or reduce mortality beyond 2030 (e.g., HPV vaccine) that are part of the NCD agenda but not included here. Further, progress on NCD mortality, and the potential impact of these interventions, is difficult to assess in countries without comprehensive vital registration systems (see Panel 2 in the original text).

Policy implications/recommendations

- Countries must urgently start investing in interventions to reduce premature mortality from NCDs. A focus on primary healthcare-based and intersectoral interventions will help reduce future (often unsustainable) spending on costly treatments.
- Most of the proposed interventions are very cost-effective in all world regions. However, national governments are responsible for setting priorities and selecting interventions; this analysis presents a menu of options.
- Public finance of NCD interventions through universal health coverage systems would also reduce household out-of-pocket spending and provide considerable protection against medical impoverishment, helping achieve SDG target 3.8 (universal health coverage) and target 1 (poverty reduction).

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