

## NON-COMMUNICABLE DISEASE SYNDEMICS AMONG LOW-INCOME POPULATIONS: PAKISTAN AND WAY FORWARD

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Non-communicable diseases (NCDs) have substantiality contributed to morbidity and mortality of populations.<sup>1,2</sup> The emergence of the novel coronavirus SARS-CoV2 pandemic took centre stage toppling over the global health and economies leading to high morbidity and mortality rates. Presently as many as one in five with underlying NCDs are at risk of severe COVID-19.<sup>3</sup> In May 2020, the World Health Organization (WHO) undertook a fast evaluation survey, which revealed that 75% of nations have experienced service outages related to NCDs. Public health campaigns and NCD surveillance programmes were among the hardest damaged. Gains against the virus are a hollow win if COVID-19's disruption resulted in high mortality making NCDs and COVID-19 have a risky interaction that is perceived as a syndemic. This relationship is further escalating social and economic disparities.<sup>3</sup>

It is ironic that global leaders and institute still see NCDs in the prism of epidemiological transitions while there is a surmountable evidence that suggests NCDs are best understood in the context of lifestyles and its choices, aging, urbanization and economics. This limited perspective is reflected in the Sustainable Development Goals target 3.4 on reducing NCD mortality, which draws its basis from 5×5 model, conveyed by WHO. This model envisages five diseases namely cardio-vascular diseases, chronic respiratory diseases, mental ill-health, cancers and diabetes and five risk factors (tobacco use, unhealthy diets, physical inactivity, harmful use of alcohol, and air pollution).<sup>4</sup> In

order to ensure effective action plans, the insight and assessment of common NCDs becomes inevitable and more justifiable today more than ever.<sup>5</sup>

More than 75 percent of the world's 31.4 million NCD deaths occur in low- and middle-income nations.<sup>6</sup> Pakistan is the fifth most populous nation in the world, with a population close to 225 million having health expenditure as a percentage of GDP < 3% in 2019. The average cost of healthcare per person in the same year was US\$43.<sup>7</sup> The health system of Pakistan is currently faced with challenges from COVID-19 pandemic, natural disasters and extreme flooding, inability to eradicate wild polio, equity and disparities, political turbulence and economic constraints.<sup>8</sup> Despite the fact that communicable diseases continue to be a major cause of health loss, Low Middle Income Countries (LMICs), including Pakistan are going through an epidemiological shifts to NCDs. Pakistan experienced a rise in NCD Disability Adjusted Life Years (DALYs) from 25.3% in 1990 to 43.7% in 2019.<sup>8,9</sup>

The occurrence of health related afflictions in transitioning populations especially in social, and cultural and economic contexts needs, conceptual frameworks that improve understanding of risk factors. The health of people living with NCDs deteriorates further when synergistic epidemics or “syndemics” occur as a result socioecological and biological interactions affecting their physical, mental, and social well-being.<sup>10</sup> For LMICs including Pakistan, the concept of a syndemic, developed by medical anthropologists, can be helpful in prevention and control of comorbidities related to double-burden of diseases. Cost effective strategies such as early detection, lifestyle decisions, risk factors' minimization through behavioral interventions are few examples that can be helpful.<sup>11</sup> A synergic platform among governments, stakeholders

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and civil society and health care systems can tackle this crisis through a holistic approach. However, limited evidence through research in the local context highlights the dearth of evidence based practices and hinders the systematic formulation and implementation of such strategies<sup>12</sup> as post-pandemic era is expected to deepen divide in health equity.

Further, in order to lessen the burden of NCDs in a nation like Pakistan where a good-size portion of the population is under 40 years, efforts must concentrate on educating children and young people about lifestyle decisions, and medical interventions to lower the risk of NCDs. Investments in health care delivery and preventive medicine will benefit younger generations even when there is an ageing population that is more and more affected by NCDs.<sup>8</sup>

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