**Non-communicable diseases: ditch the label and re-capture public awareness**

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**Abstract**

Non-communicable diseases (NCDs) are branded as the leading cause of global mortality. Global health thinking has dichotomised NCDs from communicable diseases to attract funding and end a dangerous neglect. However NCDs can also have infectious disease risk factors and mortality from NCDs is greatest in low and middle-income countries, which face a syndemic burden of disease. As a non-term, attention is not immediately focused around key ‘human-made’ risk factors for chronic disease. By continuing to use this flawed and ambiguous label, policy-makers risk enforcing an ideological approach, which fails to encourage global health researchers to work collaboratively and to capture the political and public awareness required to motivate sustainable change.

**Key words:** Non-communicable diseases, communicable diseases, global health, universal health coverage, World Health Organization.

**Issue section:** Commentary

As TLAs (three letter acronyms) for groups of diseases go, have the NCDs (non-communicable diseases) captured political and public awareness? Or is the term fatally flawed, in being defined by what they are not, as opposed to what they are?

Despite pervasive use across global health policy documents, the term ‘non-communicable diseases’ lacks a consolidated definition. A World Health Organization (WHO) factsheet defines NCDs as ‘chronic diseases’ that ‘are not passed from person to person’.1 This antonymic definition emerges from decades of international health focus on acute infectious diseases, to the detriment of other public health concerns of serious importance.

Underneath the loose umbrella of NCDs, WHO and United Nations (UN) policy documents often explain their focus further by reference to four key disease groups and risk factors. The key disease groups include: cardiovascular diseases, cancers, chronic respiratory diseases and diabetes. The key risk factors identified include: physical inactivity, unhealthy diet, tobacco use and alcohol misuse.

Combining diseases under a single classification may secure advocacy and action, as in the case of the neglected tropical diseases (NTDs) with the establishment of the London Declaration in 2012.2 Defined after the NTDs, the NCD movement has mobilised the global health community and engaged political leaders in a previously neglected public health concern. But is the term fit for purpose into the future?

The term NCD is extended to encompass a wide spectrum of health problems, including mental health problems, disabilities (including blindness and deafness), genetic disorders, trauma, renal disease, endocrine disorders, neurological disorders, haematological disorders, gastroenterological disease, hepatic disease, musculoskeletal problems and dermatological conditions.3 When NCDs are defined by disease, their all encompassing nature makes the concept meaningless, especially when attributing global mortality and morbidity share.

NCDs also risk creating a false dichotomy between diseases with infectious and non-infectious risk factors. For example, 10% of human cancers can be attributed to viral infection, with resource-limited countries accounting for the vast majority of these.4 This discrepancy is underlined in the case of hepatocellular carcinoma, where hepatitis B vaccination programmes covertly form part of the global ‘NCD’ control strategy.3 The link between infection and cancer is also not limited to viruses and current NCD policies fail to address the issue of carcinogenic bacteria (*H Pylori)*, helminths (*Opisthorchis, Clonorchis, Schistosoma),* and other parasites.

Another key disease group, cardiovascular disease, also has infectious risk factors ignored by current NCD policies. Rheumatic fever, caused by streptococci infection, remains an important cause of valvular disease and heart failure in developing countries and *Trypanosoma cruzi*, which can result in chronic Chagas disease, commonly manifests with cardiomyopathy.5 Pro-inflammatory infections such as HIV are increasingly associated with cardiovascular and cerebrovascular disease.6 A syndemic which is likely to become increasingly apparent with the roll-out of universal anti-retroviral therapy – increasing the longevity of patients living with HIV, as well as lifetime exposure to drug toxicities.

The link between microbial infections and NCDs is not unidirectional. Cardiovascular disease predisposes to infective endocarditis; chronic respiratory disease predisposes to bronchiectatic infections; diabetes increases risk of tuberculosis. It is estimated that 15% of tuberculosis cases are attributable to diabetes, which is also a risk factor for post-treatment relapse and mortality.7

The false dichotomy may cause future scientific endeavour to neglect investigation into as yet undefined links between infections and cardiovascular diseases, cancers, chronic respiratory diseases, diabetes, and mental health conditions. Furthermore, the ambiguity surrounding the NCDs definition risks a failure to attract the diversity of researchers needed to tackle this synergistic epidemic collaboratively.

The term non-communicable may also cause us to overlook biosocial contagions.8 Communication of microbes and communication of social risk factors might not be so different: consider how streptococcal infection and nicotine addiction might be ‘communicated’ across one proffered cigarette. The communication of both these entities are likely mediated by poverty, the tackling of which requires the global health community to engage both political and public awareness.

Although well known to global health professionals, the jargonistic nature of the NCD acronym hasn’t caught the imagination of the world at large. It has not become common enough to be featured and understood in mass media. Nor do we believe the term ever will be.

To future-proof the global health efforts to combat the diseases in question, we should scrap the NCD label now. We must stop defining them by what they are not and define them as what they are: ‘human-made illnesses’. Cigarettes, recreational drugs, and alcohol are sold to the vulnerable; environments are polluted by human activities, mass media and crime on the streets breed conditions for physical inactivity, and food poverty is a challenge that exists even in high-income countries.

We recognise the risk that calling time on the term NCDs could decelerate mobilisation in some parts of the global health community. Political engagement is already well underway with the appointment of goodwill global health ambassadors for NCDs, removing these roles may result in the recrudescence in higher levels of resource being directed towards communicable disease, or worse, a loss of funding and commitment.

Let us instead rename ‘ambassadors for NCDs’, as ‘ambassadors against human-made illness’, and re-engage governments, media, and the public in taking responsibility for and developing culturally appropriate, sustainable policies addressing social determinants of health and critically the four widely-recognised human-made risk factors for chronic disease: physical inactivity, unhealthy diet, tobacco use and alcohol misuse.

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