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**The Sustainable Development Goals and Health Equity**

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Invite the world to dream. That's what the United Nations (UN) did in 2012 through launching its unprecedented global consultation for the Sustainable Development Goals (SDGs) under the banner 'the world we want'.<sup>[1]</sup> Three years later, following extensive consultations and negotiations among multiple stakeholders, country leaders at the UN General Assembly in December 2015 agreed upon 17 Sustainable Development Goals (SDGs), listed below, under the overarching principle of 'leaving no one behind'.

### **Sustainable Development Goals**

Goal 1. End poverty in all its forms everywhere

Goal 2. End hunger, achieve food security and improved nutrition, and promote sustainable agriculture

Goal 3. Ensure healthy lives and promote well-being for all at all ages

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Goal 5. Achieve gender equality and empower all women and girls

Goal 6. Ensure availability and sustainable management of water and sanitation for all

Goal 7. Ensure access to affordable, reliable, sustainable, and modern energy for all

Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment, and decent work for all

Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation

Goal 10. Reduce inequality within and among countries

Goal 11. Make cities and human settlements inclusive, safe, resilient, and sustainable

Goal 12. Ensure sustainable consumption and production patterns

Goal 13. Take urgent action to combat climate change and its impacts

Goal 14. Conserve and sustainably use the oceans, seas, and marine resources for

sustainable development

Goal 15. Protect, restore, and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss

Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all, and build effective, accountable and inclusive institutions at all levels

Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

(Source: <https://sustainabledevelopment.un.org/post2015/transformingourworld> )

The SDGs, like the Millennium Development Goals (MDGs) before them, represent a potentially transformative development agenda. The SDGs build on the MDGs but are more ambitious in their scope and link the development agenda with the sustainability and climate change agenda, while having a strong focus on inclusion and reducing inequalities. We argue that health equity provides a cross-cutting theme, within an evidence-based conceptual framework, that would help countries develop coherent action across the sectoral goals and target areas of the SDGs. The research community has a key role in supporting this.

Health equity resonates with the SDGs' overarching principle of 'leaving no one behind' and the implicit moral imperative of social justice. Health equity, as described by the WHO Commission on Social Determinants of Health (CSDH), is the absence of inequalities in health that are avoidable by reasonable means. Health is universally valued, and health for all is a societal goal justifiable on moral grounds.

To achieve health equity requires action on the social determinants of health.[2] Social determinants of health include income/wealth, food, and nutrition, education and lifelong learning, water and sanitation, decent work, and fair employment, and aspects of the built and

natural environment. Therefore, there is a strong crossover between the SDGs and the social determinants of health, as elaborated by the CSDH. While action on the SDGs is likely to affect health and health equity either directly or indirectly, the effects on inequalities in SDH need to be assessed and monitored.

Implementation of action to attain the SDGs needs to cut across traditional silos, and ask how does action in one goal area impact on the other areas and how can we maximize co-benefits? This will mean finding ways to work across sectors (intersectoral action), for example by a government department working with other sectors towards a coherently stated objective, and ensuring that action in one sector does not adversely affect other sectors. This will help accelerate progress towards the SDGs. As a further example, if a city council introduces measures to reduce air pollution from traffic, there is a need for the transport department to agree the metrics with the health department. This is because potentially there will be benefits to health as well as environmental benefits, economic benefits, and equity benefits, because often the poorest and most disadvantaged live in areas with higher levels of air pollution and are more at risk. However, such co-benefits cannot be assumed; much depends on what, how, where, and when measures are implemented.

In this context, the United Nations Development Programme (UNDP) is actively responding to the interconnectedness of health and development, the need for joining up the SDGs, and the potential for optimizing the co-benefits for health and development. UNDP, with the World Health Organization and UCL's Institute of Health Equity, is developing a methodology and tools to support systematic integration of a social, economic, and environmental determinants of health and health equity approach into country level development planning.[3] The methodology is currently being piloted in Belarus across several environmental development projects. The long-run aim of the approach is to

maximize synergies across sectors towards reducing inequalities and improving health and its determinants.

While the 17 SDGs goals present an inspiring vision of how the world could be, measuring progress towards the 169 targets is challenging. There are 231 indicators, which should be disaggregated where relevant by income, sex, age, race, ethnicity, migratory status, disability, and geographic location or other characteristics. What's more, countries agreed to report regularly on progress to the UN, yet countries' ability to do this across the range of indicators is highly variable.

It's possible that heads of national statistical offices in countries around the world are reaching for their worry beads. These are the people responsible for gathering data to enable annual reporting on progress towards the SDGs. Yet many countries, especially the least developed in economic terms, have insufficiently developed data systems to report on many of the proposed indicators, and especially to disaggregate data as required by the focus on social inclusion and reducing inequality. An analysis by the UN Statistical Commission finds that even collecting the basic national indicators may be difficult for countries, let alone distributional information.[4] This is a reflection of the information paradox – those countries which have the greatest need are the least able to collect information.

The paucity of data to populate the SDG indicator framework is well acknowledged in the UN's first report on the SDGs published in 2016, which states that "*the data requirements for the global indicators are almost as unprecedented as the SDGs themselves and constitute a tremendous challenge to all countries.*"[5] In the meantime, information in the first UN SDG report relies to a great extent on data obtained from surveys run by international and national agencies in collaboration with national statistical systems in countries.

Riding to the rescue last year, the Institute of Health Metrics and Evaluation produced a timely analysis using the Global Burden of Disease Study to assess 33 of 47 health-related

SDG indicators across 188 countries.[6] Fourteen of the 33 indicators were MDG indicators, and the study was able to compare progress in MDG-related and non-MDG related indicators between 2000 and 2015. Of note, child stunting, an MDG indicator, decreased over that period of time while child overweight worsened. Close inspection of the detailed findings for each country will reveal an array of potential research questions.

The Global Burden of Disease study compiled scores from each of the 33 SDG indicators into a composite SDG index, where the maximum value is 100.[6] Iceland came top of the 188 country ranking with an average score across the 33 indicators of 85 while the Central African Republic came bottom with 20. The US came 28<sup>th</sup>, adding to the evidence that the US needs to do more to improve health -- especially, based on these findings, to tackle maternal mortality, childhood overweight, alcohol consumption, and mortality due to interpersonal violence, self-harm, and unintentional poisoning. While the UK came fifth in the rankings, the table of indicators by country reveals needed improvements in certain areas, including maternal mortality, overweight, suicide, and smoking.[6] We point out that addressing the complexity of social determinants of health outcomes requires research to establish, collect, and analyze the metrics for comparison and action within each country context, as well as research on health sector responses.

The study by the Global Burden of Diseases 2015 SDG Collaborators developed a second index, the Socio-Demographic Index (SDI), a composite of average educational attainment at ages over 15 years, a measure of income, and fertility rate.[6] The study used this to compare country SDG index by SDI, stratified into quintiles. With this methodology, Timor-Leste in the lowest SDI quintile, Tajikistan in the next lowest SDI quintile, Colombia in the middle SDI quintile, Taiwan in the second highest SDI quintile, and Iceland in the highest SDI quintile emerged as countries with the greatest improvement in the health-related SDG index by SDI quintile between 2000 and 2015.[6] Important research questions flow from these

findings: to examine how the policies and interventions implemented in these countries contributed to these improvements, as well as to examine how countries doing less well can do better.

Indices used to derive country rankings and for monitoring progress are very good for galvanizing policy makers, either to take the praise for improvements or to develop policies and interventions to tackle areas where improvements are needed. The downside is that health outcomes and health determinants that are not reported in influential indices such as this will lose out. Now, more than ever, an integrated approach incorporating the social determinants of health is needed. For this, though, disaggregated data are essential to enable analysis and understanding of the underlying issues of inequality. Countries need information about within country social, economic, environmental, and political inequalities and health inequities, because in order to improve overall population health and health equity it is necessary to tackle social, economic, and environmental inequalities.[2]

We said earlier that a focus on health equity as an outcome of development resonates with the SDG's principle of 'leaving no one behind', provides a way of unifying sectoral goals, and joins up action across the 17 goals. While using a social determinants of health framework will help to highlight relevant areas for action across the SDGs, this framework also helps countries prioritise what they measure. Based on the work of the global CSDH,[2] the Marmot Review in the UK,[7] and the WHO European Review of Social Determinants and the Health Divide,[8] we suggest taking a life-course approach, including indicators related to outcomes and social determinants in early life (under aged 5), youth (ages 15-24), adult life, and older ages, and adding measures of living standards that cut across the life-course.

However countries choose to prioritize their development goals, the research community has a key role in helping to attain them. Research is needed in all sectors, from measuring the distribution of health outcomes and the social determinants of health to identifying where

action is needed to improve outcomes, and addressing inequalities in social, economic, and environmental determinants of health, while evaluating actions and monitoring their effects.

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