BMJ Global Health

Demographic trends and population health: tackling inequality in a world of eight billion people

Thoai D Ngo

INTRODUCTION

To cite: Ngo TD. Demographic trends and population health: tackling inequality in a world of eight billion people. BMJ Global Health 2023:8:e012137. doi:10.1136/ bmjqh-2023-012137 Received 24 February 2023

Accepted 11 March 2023

Check for updates

C Author(s) (or their employer(s)) 2023. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by RM.I

Social and Behavioral Science Research Department. Population Council, New York, New York, USA

Correspondence to Dr Thoai D Ngo: tngo@popcouncil.org

In 2022, Pakistan saw massive, deadly flooding that claimed more than 1700 lives and destroyed \$15 billion in housing and infrastructure.¹ It will cost even more to rebuild. Then came a cascade of health disasters: the floodwaters stagnated, mosquitos began breeding and dengue, malaria and other diseases spread quickly. Hospitals lacked the capacity and equipment to meet the need, and the immediate loss of food combined with long-term damage to arable land has already left 10 million children without adequate nutrition.² It will take decades for the country's agricultural production to recover, projecting a future of food insecurity and malnutrition.

In one sense, the crisis was caused by climate change, having begun with intense monsoon rains and catastrophic heatwaves. But those weather events only constituted a population health crisis because of the density and demographic structure of the affected communities. Pakistan has more than 230 million citizens³ and the highest rate of urbanisation in South Asia, soon to be almost 50%.⁴ Those trends make Pakistan and other populous nations especially vulnerable to hurricanes, floods, fires and other climate disasters.

Inequality, too, is a risk factor. Recent progress in global health and education has been hindered by the 'three Cs'-climate crisis, conflict and COVID-19-which have exposed and exacerbated gendered, racial, economic and social inequities. These intersecting problems have put the United Nation's 2030 Sustainable Development Goals (SDGs) out of reach. They disproportionately affect populations and communities that have been systematically oppressed, driving those groups into further marginalisation and deeper poverty.

In a world of 8 billion inhabitants, we must shift the way we tackle interactions between the three Cs and demographic trends like

the youth bulge, ageing populations and migration patterns. Here, I want to propose that a useful way of framing their interdependencies is placing them in the context of population health and inequalities. Bringing the SDGs back within reach depends on our ability to offer everyone a society worth living in, including, and perhaps especially, those at the bottom of the economic ladder.

THE RISING GENERATION

Foremost among demographic trends shaping population health and inequality is the latent economic potential of our rising generations. The world is now home to 1.8 billion people between 9 and 24.5 Over 90% of them are concentrated in fast-growing cities in low and middle income countries (LMICs), where they face the aftermath of decades of environmental degradation and neglect. Investing in the knowledge, skills, and health that these young people will accumulate throughout their lives-the 'human capital' they represent-would enable this generation to realise its potential as a productive force in society. That capital must be developed through secure and reliable nutrition, affordable healthcare, quality education, good jobs and skills training. These measures are crucial to ending extreme poverty and creating more inclusive societies. They are also the only way we can prepare younger generations for the deeply uncertain future they face.

However, large disparities in school enrolment, retention rates and education quality exist between girls and boys⁶ and between rich and poor, both within and between countries.⁷ The promise of education remains unfulfilled, with millions of children not meeting basic standards for literacy and numeracy⁸ despite attending school. Self-harm related to poor mental health and violence are on the rise, and they remain among the leading

causes of death⁹ for older adolescents and young people. These failures are threats to the well-being of individuals and to the resilience of the cities and communities they inhabit.¹⁰

It is projected that less than half¹¹ of young people will find formal jobs in the coming decades. That level of disengagement can stall economic progress and decrement population health, ultimately destabilising social systems. In countries experiencing the 'youth bulge', governments and the private sector must work together quickly and at scale to provide the health and education resources that will allow this generation to transform the societies they inhabit.

AGING AND IMMIGRATION

The youth bulge some countries are experiencing stands in sharp contrast to the ageing of populations elsewhere. Over the last five decades, the global median age has risen more than 10 years, and the proportion of people over 65 is expected to increase from 10% in 2022 to 16% by 2050.¹² Population growth is still observed in some parts of Sub-Saharan Africa and South Asia, but low fertility and rapid ageing are increasingly the norm, especially in high-income countries.

In response, ageing countries will need to implement public policies that support older citizens, such as universal healthcare, long-term care systems, social security and robust pension schemes. These services, however, require an active and able workforce that ageing countries are already struggling to provide.

The best and only solution is to embrace immigration. The ageing populations and slowing economies of higher-income nations can be rescued by international refugees and migrants, but only if those new residents are welcomed as a necessary source of cultural and economic vibrancy. The UN refugee agency reports that there are more than 100 million forcibly displaced people worldwide, 27.1 million of whom are refugees.¹³ The vast majority—85%—are currently hosted in LMICs. Close to half of all refugee children are not in school. Those numbers need to change, and the resources to change them are locked in high-income countries that also happen to desperately need help providing mental health support and other forms of eldercare.

East Asia is leading the way here. Japan and South Korea both saw their workforces shrink as a result of declining birth rates and population ageing. Both have responded by relaxing immigration rules and opening new, more welcoming paths to citizenship. Europe has failed to follow suit, but recent analyses suggest that it must do so soon.¹⁴ An even more persuasive case study is provided by the city of Detroit, where neighbourhoods buoyed by immigration from Bangladesh, Yemen and Central America have grown by almost 50% over the last 20 years, while city's overall population dropped by 25%.¹⁵ More than 100 new businesses have opened along the central street in Banglatown alone. Across

the USA, immigrants pay about \$1000 more in taxes than they receive in annual benefits and participate in the workforce at a significantly higher rate.¹⁶ In a world full of asylum seekers and migrants, tightening borders is nothing short of economic self-destruction for highincome nations facing rapidly ageing populations.

URBANISATION AND EXCLUSION

In the majority of LMICs, large flows of the rural poor are increasingly concentrated in informal urban settlements. Climate crises are spurring migration within countries as well as between them. Urban growth now means the urbanisation of global poverty, which leads to increasing inequality—tens of millions of people are living in cities without the resources to house, educate, feed and care for them thanks in part to the legacy of colonialism.¹⁷ In Sub-Saharan Africa, roughly half of the population lives in informal settlements in and around major cities like Accra and Lagos.¹⁸

By mid-century, 68% of the global population will live in cities.¹⁹ The scale and inexorability of urbanisation mean that governments around the world need to focus on building inclusive and resilient city environments. Larger nations will need to follow the lead of smaller ones like Uruguay, Denmark and New Zealand. Uruguay in particular has combined a two-decade expansion of solar and wind,²⁰ a centralised push to welcome and integrate migrants through its Neighborhood Improvement Program, a UN-sponsored climate-adaptation program for its cities, and a remarkable national embrace of a lower-consumption lifestyle. The result is an attainable life that is healthy, livable and worth aspiring too—but is also sustainable and resilient to at least some kinds of climate crisis.²¹

CONCLUSION

As populations continue to grow, move and age, our ability to avoid catastrophic effects from climate disasters is contingent on harnessing the demographic developments that are shaping our cities and communities. Young people must be educated, must have healthcare and reproductive freedom and must have access to good jobs. Women and girls must have full social and economic participation. Migrants must be welcomed and integrated both culturally and economically. Older adults must be cared for and supported. And those jobs, economic programmes and social programmes all need to be grounded in a vision of life that is both sustainable and dignified.

The 56th annual session of the UN Commission on Population and Development takes place this April. In that forum, attention will turn to addressing population trends and the SDGs, and decision-makers will rightly observe that we lack the granular data we need to make sound decisions about policy details for our cities and communities in support of climate resilience. Adolescent health and well-being are especially understudied. Too

BMJ Global Health

few datasets adequately account for the complexities of gendered and racialized marginalisation and exclusion. Addressing those gaps in our knowledge is critical if we are to keep pace with shifting global demographics. Most of all, in order to protect population health governments must begin to treat these investments in their populations as oriented not only towards the obvious social goods they bring—education, healthcare, quality of life improvements—but also as strategic preparation for a future of disruptions, natural disasters and rapid environmental change.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval Not applicable.

Provenance and peer review Not commissioned; internally peer reviewed.

Data availability statement There are no data in this work.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: http://creativecommons.org/licenses/by-nc/4.0/.

REFERENCES

- 1 The World Bank. Pakistan: flood damages and economic losses over USD 30 billion and reconstruction needs over USD 16 billion - new assessment. 2022. Available: https://www.worldbank.org/en/news/ press-release/2022/10/28/pakistan-flood-damages-and-economiclosses-over-usd-30-billion-and-reconstruction-needs-over-usd-16billion-new-assessme [Accessed 13 Nov 2022].
- 2 UNICEF. UNICEF warns that more children in pakistan will die without immediate international support, and revises funding appeal to US\$173.5 million. Available: https://www.unicef.org/pressreleases/unicef-warns-more-children-pakistan-will-die-withoutimmediate-international-support [Accessed 13 Nov 2022].
- 3 Pakistan bureau of statistics. Final results (census 2017). Available: https://www.pbs.gov.pk/content/final-results-census-2017 [Accessed 30 Nov 2022].
- 4 Artaza I. Urbanisation in pakistan. The Express Tribune; 2019. Available: https://www.undp.org/pakistan/urbanisation-pakistan
- 5 World population prospects 2022: summary of results. 2022. Available: https://www.un.org/development/desa/pd/sites/www.

un.org.development.desa.pd/files/undesa_pd_2022_wpp_keymessages.pdf [Accessed 10 Nov 2022].

- 6 Psaki SN, Haberland N, Kozak M, et al. Girls education roadmap: 2021 report. New York: Population Council: EGER Reports, 2021.
- 7 Psaki S, Haberland N, Mensch B, et al. Policies and interventions to remove gender-related barriers to girls' school participation and learning in low- and middle-income countries: a systematic review of the evidence. Campbell Syst Rev 2022;18:e1207.
- B Grotlüschen A, Desjardins R, Liu H. Literacy and numeracy: global and comparative perspectives. *Int Rev Educ* 2020;66:127–37.
 World Health Organization. Adolescent and young adult health.
- 9 World Health Organization. Adolescent and young adult health. Available: https://www.who.int/news-room/fact-sheets/detail/ adolescents-health-risks-and-solutions [Accessed 19 Feb 2023].
- 10 O'Neill BC, Jiang L, Kc S, et al. The effect of education on determinants of climate change risks. Nat Sustain 2020;3:520–8.
- 11 The World Bank. Addressing the youth employment crisis needs urgent global action. Available: https://www.worldbank.org/en/news/ press-release/2015/10/13/addressing-the-youth-employment-crisisneeds-urgent-global-action [Accessed 10 Feb 2023].
- 12 Ruiz N, Noe-Bustamante L, Saber N. Coming of age. International Monetary Fund, 2020. Available: https://www.imf.org/en/ Publications/fandd/issues/2020/03/infographic-global-populationtrends-picture [accessed 14 Feb 2023].
- 13 United Nations High Commissioner for Refugees. Refugee statistics. 2022. Available: https://www.unrefugees.org/refugee-facts/statistics/ [Accessed 9 Dec 2022].
- 14 International Monetary Fund. Suriname: selected issues and statistical appendix. *IMF Staff Country Reports* 2003;03:i. 10.5089/9781451835250.002 Available: https://www.imf.org/en/ Publications/fandd/issues/2020/03/can-immigration-solve-thedemographic-dilemma-peri
- 15 Mallach A, Tobocman S. Building inclusive cities. Global Detroit, 2021. Available: https://globaldetroitmi.org/wp-content/uploads/ 2021/08/20210803-BIC-Report_Compressed.pdf
- 16 Evans W, Fitzgerald D. The economic and social outcomes of refugees in the united states: evidence from the ACS. In: National Bureau of Economic Research, Working Paper. 2017: 23498.
- 17 Hickel J, Dorninger C, Wieland H, et al. Imperialist appropriation in the world economy: drain from the global south through unequal exchange, 1990–2015. Global Environmental Change 2022;73:102467.
- 18 Harrisberg K. Half urban population of sub-saharan africa still living in slums – study. In: *Thomson Reuters Foundation News*. 2019. Available: https://news.trust.org/item/20190327174739-4soiz/
- 19 UN Department of Social and Economic Affairs. 68% of the world population projected to live in urban areas by 2050, says UN. 2018. Available: https://www.un.org/development/desa/en/news/ population/2018-revision-of-world-urbanization-prospects.html [Accessed 19 Jan 2022].
- 20 Shannon N. What does sustainable living look like? maybe like uruguay. The New York Times Magazine, 2022. Available: https:// www.nytimes.com/2022/10/05/magazine/uruguay-renewableenergy.html [accessed 2 Feb 2023].
- 21 Lin B, Nagendra H, Parnell S. Cities: creating transformative spaces that address climate and health. Think Global Health, 2021. Available: https://www.thinkglobalhealth.org/article/cities-creatingtransformative-spaces-address-climate-and-health [accessed 26 Nov 2022].