

# Make visible the invisible: innovative strategies for the future of global health

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In its first editorial, the *BMJ Global Health* exhorted its new readership to submit unique research pieces and views which are important to them. But beyond the importance of tackling the ‘information problem’, coined by the editor in chief Seye Abimbola,<sup>1</sup> we also believe that key underlying structural strategies must be addressed, cutting across problems, diseases or populations. At the end of 2018, as a group of 11 Francophone junior and senior public and global health (we understand ‘public health’ and ‘global health’ as defined by Koplan and colleague’s 2009 article ‘Toward a common definition of global health’) researchers and academics, we met during the Annual Conference of the *Agence Universitaire de la Francophonie* (AUF) held in Brussels.<sup>2</sup> Echoing the concern of being inclusive of the broad global health community, we were asked the important question about reflecting on the future of global health innovations amid evolving and complex global contexts. Joining our efforts with the AUF to foster dynamic practices in the French-speaking globalised space, we brainstormed and recommended three key areas to promote population health and harness the public health challenges of tomorrow, both in the global South and North. These recommendations are digital health, the Intersectionality approach and social health responsibility of universities.

First, we proposed the establishment of a unique digital personalised medical record for all citizens from birth and throughout their life course. Still, people are born and die daily without being accounted for. Mostly in Africa and Asia, approximately 50 million babies are born on an annual basis without being registered, while causes of death are not recorded in half of the countries in these regions.<sup>3</sup> There is no reason that this trend should continue while cutting-edge digital health tools are being developed that

can improve the situation, as shown by West African researchers.<sup>4 5</sup> Within an interoperable system, electronic civil registration and medical records can significantly improve the follow-up of patients. Not only will these tools provide accurate patient data to sustain healthcare in real time, but they will also enable decision-makers and researchers to generate databases at the population and territory level,<sup>6 7</sup> innovate in health impact measurements and remodel health systems. Compounded with this is the necessity to further invest in cybersecurity to allow for a safe use of numeric health data, while ensuring a legal environment to protect the privacy rights of individuals and populations.

Second, in the era of the Sustainable Development Goals with the motto ‘Leave no one behind’, we firmly believe that we can no longer keep unchecked the invisibility—both at theoretical and praxis level—of marginalised populations, such as vulnerable groups of women and girls, people with disabilities, indigenous peoples, sexual minorities, migrants, refugees, etc. Structural strategies for the implementation of health innovations must be urgently revisited, in particular related to who is recognised in and benefits from these programmes. To highlight this epistemic shift, we proposed adopting the Intersectionality approach.<sup>8</sup> It enables policymakers and health professionals to analyse legislation and public health policies more critically, while considering power and oppressive dynamics, which can perpetuate the cycle of social disparities.<sup>9</sup> It also helps to better understand and address the social health inequalities within and across populations and in relation to social determinants of health.<sup>10</sup> Concretely, applying an intersectional lens gives visibility to marginalised populations and improves the competencies of health professionals to adapt their practices to the complexity of populations’ needs and health systems’ stakes.



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Third, to connect the visibility of the digital life course of health system users and that of marginalised populations, we strongly feel that the social responsibility of public health institutions and professionals bears a renewed importance in promoting and enhancing health governance. Social responsibility in health stems from a social contract, which outlines the duties of training institutions in regard to the societies within which they are located and from where they draw their resources.<sup>11 12</sup> To achieve this, preserving the human dignity of individuals with their multiple social identities at the centre of an evolvingly digitalised healthcare system is key. More specifically, this objective can further be operationalised through a social agreement between an academic entity, health actors and the territory they serve. We named this as the ‘university territory of health’ vis-à-vis the community where the contractual relationships between all actors are established, resources are allocated and decisions are acted on, such as utilising artificial intelligence to optimise the management of health information.

Having signed the Declaration of Brussels,<sup>13</sup> the more than 200 AUF members present at the conference clearly signalled their commitment to work collaboratively at the research, academic and innovation levels. Bringing about changes in the global health of tomorrow and addressing social health inequalities is a priority. We call on the global academic and professional community to join forces in working towards innovation-based, evidence-driven and socially responsible public health systems. We contend that a strong and global cooperation between all stakeholders working for social justice is necessary in the French-speaking space and beyond. In solidarity, we are confident that operating the AUF network through its dedicated members plays an important role in contributing to a sustainable implementation of transformative and equity-focused technological and structural innovations in global health.

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#### REFERENCES

1. Abimbola S. The information problem in global health. *BMJ Glob Health* 2016;1.
2. Agence universitaire de la Francophonie Colloque 2018. La contribution des établissements d'enseignement supérieur et de Recherche de l'espace francophone l'élaboration et La mise en oeuvre des politiques de santé publique Brussels 6-7, 2018. Available: <https://www.colloqueannuel.auf.org/> [Accessed 19 Jan 2019].
3. Setel PW, Macfarlane SB, Szreter S, *et al*. A scandal of invisibility: making everyone count by counting everyone. *Lancet* 2007;370:1569–77.
4. Bagayoko CO, Traoré D, Thevoz L, *et al*. Medical and economic benefits of telehealth in low- and middle-income countries: results of a study in four district hospitals in Mali. *BMC Health Serv Res* 2014;14 Suppl 1.
5. Bagayoko C-O, Gagnon M-P, Traoré D, *et al*. E-health, another mechanism to recruit and retain healthcare professionals in remote areas: lessons learned from EQUI-ResHuS project in Mali. *BMC Med Inform Decis Mak* 2014;14.
6. Carmichael JM, Meier J, Robinson A, *et al*. Leveraging electronic medical record data for population health management in the Veterans Health administration: successes and lessons learned. *Am J Health Syst Pharm* 2017;74:1447–59.
7. Perlman SE, McVeigh KH, Thorpe LE, *et al*. Innovations in population health surveillance: using electronic health records for chronic disease surveillance. *Am J Public Health* 2017;107:853–7.
8. Hankivsky O, Grace D, Hunting G, *et al*. An intersectionality-based policy analysis framework: critical reflections on a methodology for advancing equity. *Int J Equity Health* 2014;13.
9. Collins PH, Bilge S. *Intersectionality*. Malden: John Wiley & Sons, 2016.
10. López N, Gadsden VL. Health inequities, social determinants, and intersectionality. *NAM Perspectives* 2016;6.
11. Klohn A, Chastonay P. La responsabilité sociale des facultés de médecine, notion émergente: quelles implications pratiques. *Bull Med Suisses* 2010;91:235–8.
12. Boelen C. Consensus Mondial sur la Responsabilité Sociale des Facultés de Médecine. *Santé Publique* 2011;23:247–50.
13. Agence universitaire de la Francophonie Colloque 2018. Déclaration de Bruxelles 2018, 2018. Available: [https://docs.wixstatic.com/ugd/b685a5\\_339805bc27f44be0a000e24cb994692a.pdf](https://docs.wixstatic.com/ugd/b685a5_339805bc27f44be0a000e24cb994692a.pdf) [Accessed 15 Jan 2019].