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Commentary

Commentary: Embracing social sciences to improve population health

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Beyond medical technology and pharmaceuticals, population health increasingly relies on the degree to which individuals and communities adopt healthy lifestyles and accept and utilize health services, and on how well national health structures, institutions and legislation ensure access to and convenience of these services through the life course. Reaching the global and local health goals, including those set for vaccination, will likely be determined by how well health authorities engage, listen to and understand the communities they serve, and the degree to which they respond to user-needs and foster citizen-centred approaches to policy, service delivery and health communication.

To do that successfully, policy-makers, managers and practitioners will need to embrace disciplines outside of the biomedical sphere. Not doing so, may endanger our likelihood of ensuring healthy lives and wellbeing for all at all ages (Sustainable Development Goal 3) and universal health coverage. Insight into the barriers and drivers of health behaviours obtained through social science research, and the interventions developed based upon such evidence, offer the potential to extend the benefits of public health, to deliver more accessible, affordable and convenient services and for more targeted, cost-effective investment.

Social interventions and bio-social investigation are already successfully being applied (Box 1). Proven methods and models exist which encompass the complexity of factors affecting health behaviours, and which allow segmenting and tailoring of health services to the needs of specific population groups. The considerable potential of this is fully recognized in academia. In practice, however, the potential is far from fully harnessed, and national health programmes are rarely using such methods as a routine measure.

Box 1 'Social interventions and bio-social investigation' refer to the application of theoretical and methodological approaches of medical anthropology, nutritional anthropology, social epidemiology, behavioural psychology, health education and other social science and public health disciplines, to inform the design of locally appropriate and socially-informed action to reduce individual or population susceptibility and mitigate the impact of disease outbreaks and health emergencies. 'Bio-social investigation' specifically refers to social and community insight/observation/research that measures factors that affect health seeking behaviour and engagement of the community in response measures [1].

Recipients of health services have an inherent value as active agents with the power to change their own lives and affect those of their peers. Today, the term 'beneficiary' is inadequate. We need

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to collectively consider the community as a resource and the individual as an agent, not only as receivers of services. This recognizes the subjective experience as a legitimate source of knowledge to inform the design of appropriate and user-friendly health services and promotion of healthy behaviour. It also presents opportunities to further take advantage of insights from health workers who work directly with and in communities and strengthen the collaboration between all stakeholders, from policy and decision-makers to communities, practitioners and social scientists.

Further recruitment of social scientists (i.e. medical- and social-anthropologists, behavioural economists, sociologists, nutritional anthropologists, social epidemiologists, behavioural psychologists, health educators, medical historians, ethnographers and social researchers) to tap this potential and an expanded notion of what public health encompasses, is necessary.

The practice all too often has been to rely on information, communication and education as the primary means to influence and promote recommended health behaviours. This, however, is far from always the best investment. Factors affecting health behaviours are complex and highly contextual. They relate to individual and social circumstances, opportunity, capability and motivation [2]. Therefore, behavioural insight must be comprehensive from the outset as it guides the subsequent design of interventions for improved health. Given the complexity, evidence-informed intervention options cannot be limited to social mobilization or risk- or behaviour change-communication. This notion, held by some public health stakeholders, creates an artificial field of enquiry, blinkers the perspective and handicaps potential outcomes. It overlooks the broad scope of method and capacity and potential of social science research, for example, in informing interventions related to control of chronic diseases [3], in drug and vaccine trials [4], community participation in disease surveillance and health promotion, local and national legislation formulation, procurement and logistics of services/products, service delivery revision [5], communication and education efforts and building community and service resilience prior to (and during) emergencies and crises [6]. Communications is a tool we may use and shape on the basis of our insight, but ultimately it stands as *one* intervention amongst many that affect the behavioural, social and environmental determinants of health.

The value of these approaches has been shown, for example in smoking cessation, road safety, substance abuse, sexual and reproductive health, vaccination and nutrition policy [7]. In outbreaks and emergency settings, where a rapid and accurate understanding of the populations affected and their participation in the response is essential, the potential of such approaches may be significant. The Ebola and Zika responses drew on social science and medical humanity capacity in an unprecedented way. During the Ebola outbreak, anthropologists provided advice on how to engage with crucial socio-cultural and political dimensions, and informed the design of locally-appropriate interventions. Such insight and application of skills and techniques from the social sciences and medical anthropology are considered key forces in retarding transmission of the diseases [8].

If we take the case of vaccines and immunization we find evidence-informed social interventions for strengthening immunization systems and improving vaccine coverage compelling. Documented examples of targeted behavioural and social insight and research [5] illustrate how initial assumptions about communities can be essentially challenged leading to fundamentally different new strategies and interventions for improved health. In the Charedi orthodox Jewish community in London, formative research and behavioural analysis challenged the assumption that a cultural or religious anti-vaccination sentiment existed within the community: as it were, critical issues mainly related to access to and convenience of immunization services, and insights enabled the development of new recommendations for commissioners and vaccination providers [9]. In Somali communities in Sweden, social science research revealed unmet needs for information grounded in the strong community-based and oral tradition which is trusted by members of this community [10]. This informed a new approach to working with community volunteers and training of vaccine providers. In Lithuania, research revealed systems errors related to influenza vaccination of pregnant women, including the need for an influenza 'tick box' on pregnancy cards and for revised standard operating procedures for antenatal care, besides needs to build capacity among health workers. The actions implemented based on this directly translated into increased vaccination uptake in the targeted group [11].

Common for these projects and others is that the innovation lies, not in inventing new approaches but rather in applying proven qualitative and quantitative research methods and stakeholder engagement approaches in a context where – as we have learned – they have previously not been used. At a time where other important new inventions in the field of vaccines and immunization have been embraced, it is clear that the integration of citizen-centred research and social interventions is still only in its infancy.

Each of these projects was made possible by drawing on behavioural and social science expertise and community solution efficacy. The success relies on a true interdisciplinary approach where the social science research with beneficiaries and service providers is guided and informed by population, monitoring and surveillance data, and where these sources of information together help decision-makers understand gaps, health seeking behaviours and frontline health services and behaviours.

These examples, among the many initiatives of their kind around the world, illustrate the potential of marrying medical and social sciences. They provide the foundation blocks for building capacity and developing norms, standards and tools to help ensure practical level implementation and routine application of these approaches in national health and immunization programmes. They also contribute to the global community of practice which identifies best practice and collects evidence to document the impact of these approaches.

It is crucial that the momentum is maintained and that the public health community of health system legislators, planners, donors, researchers and implementers continue and expand efforts to unfold the potential of integrating the social sciences into the medical sphere. The investment may seem considerable for public health programmes, but the long-term public health gains and economic cost-saving far outweigh the costs. Indeed, the degree to which the public health community enhances its ability to understand how constituents behave or act in social circumstances and in relation to health systems and structures, and how they relate to their life, environment and health, will determine how realistic the goals we have set truly are.

Conflict of interest statement

The authors declare no conflicts of interest.

Author contributions

Both authors contributed equally to the planning and writing of this article. The authors have approved the final article for submission. The authors alone are responsible for the views expressed in this article and they do not necessarily represent the views, decisions or policies of the institutions with which are affiliated.

References

[1] Brown. Understanding and applying medical anthropology: biosocial and cultural approaches. London: Routledge, Taylor & Francis Group; 2016.

[2] Michie, et al. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. <http://www.implementationscience.com/content/6/1/42> (accessed 18052018); 2011.

[3] Jamison, Breman, Measham, et al., editors. Disease control priorities in developing countries, 2nd ed. Washington DC: The International Bank for Reconstruction and Development/The World Bank; New York. Oxford University Press; 2006 [Chapter 44: Prevention of Chronic Disease by Means of Diet and Lifestyle Changes].

[4] Dussauge, Helgesson, Lee. Value practices in the life sciences and medicine. Oxford University Press; 2015.

[5] Dube et al. The WHO Tailoring Immunization Programmes (TIP) approach: review of implementation to date. Vaccine 2017;36:1509–15.

[6] Hewlett, Hewlett. Ebola, culture and politics: the anthropology of an emerging disease; 2007.

[7] Oliver. Behavioural public policy. Cambridge University Press; 2015.

[8] Stellmach et al. Anthropology in public health emergencies: what is anthropology good for? BMJ Global Health 2018;3:e000534.

[9] Letley et al. Tailoring immunisation programmes: using behavioural insights to identify barriers and enablers to childhood immunisations in a Jewish community in London. Vaccine 2018;36(31):4687–92.

[10] Folkhälsomyndigheten Sweden. Barriers and motivating factors to MMR vaccination in communities with low coverage in Sweden. Implementation of the WHO's Tailoring Immunization Programmes (TIP) <https://www.folkhalsomyndigheten.se/contentassets/5db4b41a40f94e98b0e1d0d4a596bae8/barriers-motivating-factors-mmr-vaccination-communities-low-coverage-sweden-15027.pdf> (accessed 18052018); 2015.

[11] WHO Regional Office for Europe. Tailoring immunization programmes for seasonal influenza (TIP FLU) A guide for promoting uptake of maternal influenza vaccination; 2017:58. <http://www.euro.who.int/__data/assets/pdf_file/0004/346369/Whodesignvfinal_august.pdf?ua=1> (accessed 18052018).