

The hidden health governance contribution of librarians

The articles in this issue of *IJHG* cover a wide range of topics, which presented a challenge when attempting to identify common themes for the *IJHG* Review section. However, the final article reviewed highlights an important and interesting aspect of health governance, prompting some thought about future directions. Therefore, the article examining libraries' contributions to health governance by Ibraqimova and Korjonen (2019) was selected as the lead article for the Review section.

Librarians' contribution to health governance

Academics, clinicians and researchers all use libraries. Whether doing a literature search in preparation for developing a research bid or searching for the latest evidence to support a health policy or protocol, work related to health governance would be impossible without access to health libraries and librarians. However, the work done by librarians is often hidden and unacknowledged. Experienced clinicians or academics might argue that they are quite capable of doing their own database searches and rarely enlist the help of specialist librarians. However, delving a bit deeper and asking questions about who organised library collections, who trained staff and students about effective search techniques or who designed access to information for service users, the answer is most often "health librarians".

While the work of health librarians is often overlooked, their contribution to health governance is under-researched. To address this, the researchers developed a survey that they distributed through the European Association for Health Information and Libraries. In total, 83 librarians from 25 countries responded to the anonymous survey, providing data about their contribution to the various aspects of health governance. These were rated according to the percentage of respondents who indicated each aspect as part of their role.

The three most important components of health governance supported by librarians were: clinical effectiveness and research; education and training; and patient and public involvement. Over 80 per cent of responses indicated that librarians were involved in these aspects of health governance. The fourth most important with a response from over 70 per cent of librarians was using information and IT. Other work done to support health governance included: generating information, formulating policy, risk management and audit. However, these aspects of health governance showed that fewer librarians were involved as they received scores between 30 and 50 per cent.

Some respondents provided very detailed case studies of the work they did to support health governance. These highlighted the importance of library work that often remains "invisible" to clinicians and academics. Appendices to the article provided a detailed list of all the activities done by librarians to support health governance.

Overall, this was a very enlightening look at the work of health librarians and prompted my consideration of how we can acknowledge this work more specifically in academic publications.

Reducing infant mortality in rural India

The next article reviewed was an examination of infant mortality rates in India, and the role of the National Rural Health Mission (NRHM) in reducing infant deaths.

This project aimed to explore the role of the NRHM in reducing infant mortality in India, particularly in rural areas, which traditionally experience higher rates of infant death.



While India has experienced rapid economic growth over the past two decades, this increasing national wealth has not stimulated a corresponding improvement in health outcomes identified as part of the World Health Organisation's (WHO) Millenium Development Goals (MDG) (WHO date). The MDG were eight goals that all United Nation member states agreed to try to achieve by the year 2015. Sustainable Development Goals have now replaced the MDG.

While progress was made in reducing infant mortality, India, as was true for many other countries, failed to achieve the MDG target of 12 deaths per 1,000 births. Interestingly, during the period of time covered by the MDG, maternal mortality rates reduced by approximately 50 per cent. While an assumption might be made that maternal and infant mortality rates should mirror each other, this does not appear to be the case. However, taking a longer look at infant mortality rates, these are defined as the death of a child from birth to aged 1. Infant mortality rates in India have been falling steadily over the past 60 years, from 161 deaths per 1,000 births in 1960 to 32 deaths per 1,000 in 2017. This is reflected in world figures that demonstrate a drop in average infant mortality rates from 65 in 1960 to less than 30 in 2017 (World Bank, 2017). In fact, these figures portray quite a positive view of India as they started out with between two and three times the international average and have reduced infant mortality to very close to the current international average.

However, death within the first year of life is not the only danger faced by children in developing economies. In all, 6m children still die in India before their sixth birthday. As good health around the time of birth is not only important for the immediate survival of the infant, but also has a continuing impact on a child's ongoing health status, care received in the antenatal and intrapartum periods can have long-term implications for child health. In rural areas of India, skilled professionals attend only about half of all births; this may have an impact on child health beyond the first year of life.

The authors used a time series methodology to compare health outcomes prior and following the introduction of the NRHM, an initiative started to address discrepancies between urban and rural areas. Urban areas offer greater access to healthcare facilities and health professionals such as doctors, nurses and midwives. NHRM initiative, which includes upgrading newborn and child services at district hospitals and community health centres, has been successful in reducing the differences between urban and rural infant mortality rates. One important aspect of the NRHM has been to train village women as Accredited Social Health Activists. These are community-based volunteers whose role is to promote health-enhancing behaviours and provide some basic healthcare. The most successful aspect of their role seems to be as a facilitator or link worker in the areas of maternal child health where they encourage women to seek professional antenatal and intrapartum care and carry out basic postnatal checks on mothers, also offering breastfeeding advice (Fathima *et al.*, 2015).

Motivation is key to encouraging rural medical staff in Iran

Problems related to unequal access to health in rural areas was also addressed by Nouri *et al.* (2019) who explored the factors which encourage or discourage Iranian medical students from taking up rural posts on qualification. In 2017, 753 medical students from four provinces in western Iran participated in a survey designed to find out what their motivation was for the choice of a medical career and how this motivation affected the choice of practice area on qualification. The overall aim of the study was to determine what percentage of students would be willing to take up medical posts in rural communities and why they would or would not wish to work in rural areas.

Over half of all medical students in the survey indicated that they would be willing to work in rural or isolated areas. Most students making this choice wanted to

contribute something to the community and provide medical services for people who had low levels of access to care. What was most interesting, however, was when students' demographic details and type of motivation were compared to their responses. Students had two main types of motivation in terms of career choice. Some had a strong extrinsic motivation towards becoming doctors. They spoke about status, income, opportunities for advancement and life styles. These students tended to come from more affluent, educated backgrounds. Students with intrinsic motivation were more service orientated, wishing to help people and gain valuable (as opposed to lucrative) experience. These students were more likely to come from rural or less educated backgrounds and more female students were in this group than in the extrinsic motivation group.

The results seem to indicate that the solution for increasing the number of doctors in rural areas does not lie solely in incentivising such work, but by increasing the number of medical students with intrinsic motivation and those who themselves are from rural backgrounds. This shifts the emphasis from the end of medical education to the admissions process.

Another problem affecting disadvantaged populations is obtaining health insurance cover for medical and healthcare. Iran operates a government-run insurance scheme but some Iranians still do not have cover despite the government drive to increase the scope of health insurance.

Health insurance in Iran

A study by Hakimzadeh *et al.* (2019) explored strategic purchasing of health services by the Iran Health Insurance Company to determine what the most important factors were. The Iranian health sector is largely insurance based, although there are also NGOs providing health services for people in isolated or impoverished communities. However, over the past 30 years, Iran has established a primary care network in rural areas that has received praises from UNICEF.

Private medical facilities also exist for those with the means to purchase care directly. One of the major problems with the government-run insurance scheme is how decisions about purchasing care (including equipment, drugs and human resources) are made. There is little systematic evaluation of different interventions or care packages and, therefore, decisions are often made on cost alone (Davari *et al.*, 2012). How decisions about purchasing are made is the major focus of the current study.

This Delphi study began with a preliminary questionnaire distributed to a purposive sample of ten health insurance executives, five experts in health purchasing and five academics in the fields of health management or health economics.

The next stage of the study employed a panel made up of ten original participants plus an additional five national or international health management and insurance science specialists. Participants agreed on nine themes and numerous sub-themes, all relating to key elements for the implementation of strategic purchasing in the Iranian Health Service.

Participants agreed that Iran should allow doctors to work in both the public and private sector, although how this workload should be distributed was not clarified.

Panel members also agreed that the government should not fund cost-intensive interventions for rare conditions but the panel could not agree on how costs should be covered in government health facilities for people who had no health insurance. There seemed to be a general feeling that a high level of government funded healthcare was detrimental as it raised costs for the poor disproportionately. The underpinning theory stated that providing comprehensive healthcare that was free at the point of delivery stretched resources while wealthy individuals with private insurance could afford to go

elsewhere for their care (presumably to private health facilities). These beliefs seem to be based on custom rather than on empirical evidence.

The main areas highlighted by the Delphi panel were: selection of interventions, selection of population (both in terms of receiving interventions and receiving the most benefit from interventions), determining the position of the consumer in purchasing health interventions, criteria for selecting service providers and pricing information.

Water and cognition

Important health initiatives are not always about the prevention of ill health. Promotion of optimum health, particularly in public health settings, is equally relevant. Merhej (2019) expands on typical nutritional advice to focus on the importance of water, in a review which examines the relationship between good hydration and good mental health. Dehydration is defined as the loss of 1–2 per cent bodyweight due to fluid loss. Even mild levels of dehydration affect cognitive performance. This includes: working memory; sustained attention; visual attention; psycho-motor speed; reaction time; concentration; mathematical accuracy; visual-motor tracking; perceptual discrimination; verbal analogies; and planning and problem solving.

Merhej performed a dual stage review. In the first phase, she reviewed literature on the relationship between hydration and cognition in adults and children (excluding vulnerable groups such as infants/elderly/people with disabilities). In the second phase, Merhej examined the status of water as nutrient in water-related documentation by international organisations such as the WHO and found that it was often overlooked.

Merhej's findings demonstrate the importance of good hydration among school children. Children often voluntarily dehydrate as they are unaware of their need for water. Because good drinking habits are established in childhood, ensuring children are aware of their own hydration status and requirements. One simple way to do this is to teach children to be aware of the colour of their urine. Urine colour indicates concentration; therefore, dark urine means more fluids are required while clear urine means that the body is sufficiently hydrated.

Literature reviewed for this study indicated that supplementary water improves concentration and task performance in children aged 7–9. In one study, eight-year olds were encouraged to drink more by allowing them to bring water bottles to school. This resulted in improved sustained concentration. The current study highlights the need to disseminate knowledge about the importance of hydration particularly to school children as even small reductions in hydration can cause reduced cognitive function. Regulations regarding access to drinking water can help such as those in the UK requiring all schools to provide access to clean drinking water at lunchtime. In the USA, standards for daycare require providing access to water throughout the day. However, children may not recognise early signs of dehydration and, therefore, require knowledge as well as access.

Skipping from an easily remedied health problem to discussion of one of the most aggressive forms of breast cancer requires a mindshift. However, this report of an Australian audit is as important for the few who are at risk as knowledge about hydration is for the many.

Appropriate referral for breast cancer screening

Breast cancer is the most common malignancy worldwide with 1.2m cases diagnosed and 500,000 deaths annually. Treatment success is rising and this is helped by appropriate diagnosis and prompt referral.

One of the most aggressive forms of breast cancer is known as “Triple Negative Breast Cancer (TNBC)”. This is a cancer in which growth is not affected by oestrogen or progesterone or by the HER2 protein. This means that hormonal-disrupting therapies are

ineffective in this aggressive form of breast cancer with a poor prognosis. There is also a relationship to hereditary breast and ovarian syndrome (HBOC) associated with the genetic mutations BRCA1 and BRCA2. HBOC increases the lifetime risk of breast cancer in a woman to 40–50 per cent. The risk of ovarian cancer is 15–40 per cent.

Referral for genetic testing for BRCA mutations (including pre- and post-test counselling) is recommended. Evidence-based guidelines recommend referral for BRCA testing in all cases of cancer under the age of 50 and diagnosis at any age when there is a family history of breast or ovarian cancer. For high-risk individuals, this results in improved survival, better treatment options and assistance with risk management for the woman and her family. However, although high-risk testing is subsidised by the Australian medical benefits scheme, there are little data from Australia about referral.

In an audit by Spigelman and Lu (2019), breast resection samples from 2006 to 2016 were examined to confirm TNBC status. A cohort of 102 women was identified. In this cohort, findings showed that younger women were more likely to be referred and that the rate of referrals increased in the most recent years. Age and year of referral were the only determinants of whether someone was likely to be referred. Patients who were in the 61–70 age group were four times less likely to be referred than younger women, and women over 70 were eight times less likely to be referred for genetic testing. Of the 75 per cent of women referred, 34 per cent were found to have the mutation.

However, appropriate referrals increased in patients of all ages from 2011.

This seems to indicate that barriers to physician referral including inadequate education and lack of knowledge have improved during the past decade.

Recommendations from this audit include encouraging genetic counselling services to play a greater patient-facing role and improving information sharing in the multi-disciplinary teams responsible for breast screening and cancer care.

Undoubtedly, librarians working in hospital, medical and university libraries contributed either directly or indirectly to all of the articles, which make up this issue of *IJHG*. A small but interesting project would be to develop a survey asking contributors about their experiences of library contributions to health governance, particularly in regard to their own research projects and articles resulting from these. Watch this space.

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Further reading

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