

Using available data in Primary Health Care

Astana Declaration to build sustainable Primary Health Care (PHC) linked its success to Knowledge and Capacity Building, Human Resources for Health, Technology and Financing.

Perhaps greater attention is required to use data emerging at PHC level and its use at grassroots to further sustainable PHC. Data is routinely collected at PHC level, but it is largely used for collation at district level for further accumulation for more central use. Importance of data at PHC and its use is limited and it is not used for workload assessment, effective treatment of common conditions, training purposes and assessment of state of health of the defined population.

This article is to share examples to demonstrate how data can be effectively used from PHC in two very different circumstances.

General practice in UK provides PHC to all registered individuals and families free of cost. For ease of access to services, registered population with a practice is generally geographical. The general practitioners are paid according to the size and structure of the registered population in the practice. Unique aspect of this system is maintaining an age-sex register of the population, which serves a method of payments for the practices. This is organised in such a way that it allows the whole population of the country to be registered, resulting in universal health coverage for all.

Age-sex register of a population is an instrument which provides age and gender of the health care beneficiary along with the contact address for access to provide required health services. It enables service providers to deliver advice and services, such as immunisations, care during and after pregnancy, growth monitoring for Under-fives, care of the elderly and infirm. This data was also critical for computerisation of general practices in 1990s. During 1993-1995 using computerized data from representative sample of General Practice populations in Wales a General Practice Morbidity Database was developed. Over a million medical records were put together electronically to create a database which provided the basis for prevalence of common diseases in the general population, leading to equitable health for all. People in UK enjoy well planned preventive services as part of the general practice. It also helps in developing health indicators to assist in monitoring population health. The post coded data analysis points out high prevalence of disease by geographical areas. (*Evans et al. The General Practice Morbidity Database Project Wales - a methodology for primary care data extraction. Medical Informatics. International journal of information processing in health care. 1997 Volume 22 No. 2 p 191-202*).

The NTPC resettlement programme for universal PHC was developed, under the care of two health centres in Nakai, Khammuane Province in Laos for 17 resettled villages, with a total population of around 8000 people. This was possible only through a comprehensive age-sex register, developed through a health checks programme conducted on the whole population at the start of the project. The age-sex register emerging from the health checks was regularly maintained by registering all births, deaths and migrations by the two health centre's staff. This live register allowed provision of MCH and other health services to all villagers through monthly clinics and provided the denominator for calculating the rates for various health indicators.

Implementation of the health programme during 2007-2013 brought health services closer to the people and their health improved. Availability of population data enabled to calculate health indicators in the project area. Findings of the final health survey in 2013 showed under-fives mortality had improved from 121/1000 to 50/1000 live births and infant mortality from 105/1000 to 46/1000 live births. 74% of women received antenatal care and 57% of births were attended by skilled

attendant. Contraception use among women had increased from 43% to 57%. Toilets were available to 89% of the resettled population reducing any parasite on stool examination from 59% to 21%. Stunting among under-fives was reduced from 46% to 39% among boys and 41% to 29% among girls. Underweight was down from 29% to 18% in boys and 26% to 18% among girls. Calculation of these indicators was only possible because of the live data available from age-sex register and it's continued updating. Health centre staff could monitor the effects of their hard work themselves. The data also provided useful material for in service training and capacity building. (Further details under Blog > Collaboration with Government Health Services)

This level of data capture and analysis at primary health centres is not routine in many places leaving PHC providers in dark to see the effectiveness of their work. Primary health centres in most countries do have data of their catchment population. Procedures for reporting births and death are in place for most countries. Improvements in PHC and its sustainability is very much dependent on the appropriate use of available data and constant efforts to strengthen and further developing it. Moreover use of electronics (Technology) has made it possible to collect data at primary health care through tablets for easy transfer, collation and analysis.

An Ethiopian study in 2014 concluded that introducing a Mobile Health Application at primary health care for routine collection of health data relevant to maternal health at a small scale was feasible. Nonetheless, implementing a system of assigning unique and consistent patient identifier, standardization of health services, and improving mobile network coverage would be prerequisites for scaled-up usage of such an application. (Mobile health data collection at primary health care in Ethiopia: a feasible challenge. Medhanyie et al. [Journal of clinical epidemiology](#). Volume 68, Issue 1, Pages 80–86. 2015)

It is possible and sustainable to collect and use valuable health information at PHC level. Determination and sustained effort is required to achieve this.