There are children not receiving a single dose of any vaccine: from ‘data to policy’ in immunisation and health systems. Data quality and socio-economic determinants of unvaccination in low- and middle-income countries

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Chapter 8. Discussion

Only in recent years has the problem of unvaccination, rather than ‘low vaccination’, come to the attention of the highest global immunisation policy making bodies, and materialised in SAGE’s requests to gather and produce local as well as global evidence on this issue. This problem affects not only LMIC, although this dissertation focuses on them due to the specific features of this group of countries.

An unacceptably high number of children do not receive any dose of the routine vaccinations included in the EPI since 1974, with marked differences between countries and within countries. Although this is happening in a context of increasing vaccination coverage and reduction of inequities, unvaccinated children and their households exist (the ‘last mile’), and remain an important issue which requires full attention at national, regional and global levels. These are the most vulnerable households, and likely to be at higher risk of social and economic exclusion. The evidence provided in these analyses is compelling.

In this work, we have addressed each main step in the knowledge translation cycle [1]: from data (Chapters 3 to 4), to evidence (Chapters 5 and 6), and use of evidence (Chapter 7). This exercise faced the enormous challenge of analysing almost 205 large datasets, which required the design, programming and implementation of an algorithm to harmonise variables and values across different datasets (Chapter 2).

We fully acknowledge the increasing needs to produce and analyse good quality data in order to monitor and evaluate programme performance, and for accountability purposes. Major efforts are being taken at global level to improve the quality of data, creating awareness, establishing standards and promoting wider access to data and analytical tools [2]. However, the availability of data, or evidence, does not ensure its use and translation into policies. While emphasis seems to be placed on data quality and on the metrics of health systems, comparatively much less attention seems to be paid to the more rational and efficient use of the existing data, despite problems in accuracy. In Chapters 2 and 4 the quality of both administrative and survey sources of vaccination data is shown to vary greatly in different countries and types of surveys, and that in order to produce evidence, careful judgments have to be applied to understand the reasons for discrepancies by using additional knowledge, often of local nature.

Administrative vaccination data is probably the largest data set of a public health intervention worldwide, and which has been available for the longest period of time. We are not aware of any other public health programme with such a wealth of relatively standardised data from so many countries. Despite the limitations and cautions outlined in preceding sections, this is a unique opportunity to understand issues related to access and acceptability of health care. Surveys provide an invaluable complementary source of evidence, especially relevant to describing issues related to those populations which have no access to services and, therefore, cannot be counted in administrative data sources. Our findings confirm the known relationship between low socio-
economic conditions and poor access to health care. Furthermore, we provide new evidence on certain determinants of unvaccination in children, such as the vaccination status of mothers and gender issues. We produced compelling evidence on the lack of association between children’s sex and vaccination status, for the vast majority of countries included in the analyses. There were some exceptions, with different associations with boys or girls, depending on the sub-group analysed.

These and other existing analyses around vaccinations in children (for example, on timeliness of vaccination [3]) provide a large evidence platform for the international community and governments to address barriers to vaccination. GAVI is a global health initiative, operating since the year 2000, supporting vaccination programmes, the use of underutilised vaccines and the development and use of new ones. Countries can apply to GAVI, and others for support, by making a case of their needs. Evidence on problems and evidence on interventions to address these problems is heterogeneous in availability and quality: there seems to be better and more evidence on the effects of public health interventions (e.g. the effectiveness of vaccines [4]) than on interventions to improve health systems, which constitute the bottlenecks in many instances for achieving higher coverage. The need to base requests for support on evidence is encouraged and widely accepted. However, the use of existing evidence by countries and the international community is still far from systematic. This can be partially due to the fact that health systems evidence is often inconclusive and difficult to interpret or extrapolate to different health system settings from those where it was produced; and also to the existing gap between research and policy and practice [1].

We have undertaken this work under the perspective that our findings will be effectively used by the community concerned leading to improved vaccination coverage, particularly in LMIC. The findings of this work have been presented in several reports, in international meetings and fora and have informed policy-makers at global and country levels:

- Reports to GAVI on methods to estimate immunisation coverage (2009) [5,6,7,8].
- Swiss Tropical Institute seminar. Evaluating immunisation coverage monitoring methods: understanding data and solving discrepancies (Basel, Switzerland 2009).
- 14th Swiss Tropical Institute Symposium. Data on health outcomes: globalisation or trivialisation? The case of immunisation coverage (Basel, Switzerland, 2009).
- WHO-SAGE. Epidemiology of unvaccinated infants (Geneva, Switzerland, 2009) [9] with fact sheets on unvaccinated children for use at national level [10].
- 6th European Congress of Tropical Medicine and International Health. Workshop. Translating research into practice: using systematic reviews in policies, guidelines and influencing change (Verona, Italy, 2009).
WHO-SAGE. The epidemiology of unimmunized children and gender-related issues (Geneva, Switzerland, 2010) [11,12].
26th International Paediatric Association Congress (Johannesburg, South Africa 2010) [13].
Public seminar on vaccination and communication (Melbourne, Australia, 2011).

Some of these findings and materials have been used in teaching sessions and within other projects or to inform other immunisation related initiatives, such as:
The ‘Harvesting Evidence’ web site, on immunisation and health systems [14].
Communicate to vaccinate project [15].
‘Save the Children’ advocacy tools [16].

Limitations
Despite the wealth of data on vaccination, not all the same data was available for all countries and years. It was not attempted to model or extrapolate for missing data, but it was rather assumed that data items were consistently reported across countries and years (although, in some instances where this was not the case this was taken into account). General patterns across countries and years were identified as described in the preceding chapters.

On the other hand, socio-economic and gender-related determinants of unvaccination cannot be simply addressed on the basis of a single study, or in the short term. Therefore, the evidence generated in these studies needs to be used together with global and local evidence on related problems (e.g. access to education), the range of interventions potentially effective to address determinants of health (e.g. health education and promotion, or communication), and the contextual issues in each country or setting (e.g. degree of decentralisation and economic development).

Implications for policy and practice
Efforts to improve the quality of data have to focus on countries administrative reporting systems, not only for immunisation programmes, but also for the whole of health services; however, there is room for improving the use of data already available for decision-making.
Inequities in accessing health services have to be kept at the top of health policy agendas, not only looking at global inequities, but also within countries, and with special attention to small groups who may be especially vulnerable (the ‘last mile’).
While support to countries by agencies and donors is increasingly informed by evidence (e.g. using data for performance based funding), special care has to be exerted to avoid too general, trivial and context-free interpretation of the available evidence used to take decisions on supporting countries, because local and global knowledge or additional indicators can contribute to a more balanced interpretation of data.
Implications for research

- It can be tested to which extent immunisation related data (e.g. coverage, inequities) could be used as a proxy of availability, access and utilisation of other essential services for which little data is unavailable or where more difficult to obtain.
- Research on the metrics of health systems performance has to take into account the effects of selecting different types of indicators and from different health delivery areas, and interpreted using evidence on health systems settings (e.g. degree of decentralisation), and contextual factors (e.g. policy context).
- Methods and outputs to produce and disseminate evidence with relevant contents, and in formats suitable to the needs of policy makers needs to continue; as well as research on the ways to reinforce the use of evidence by organisations and policy makers.
References


5 Bosch-Capblanch X. Consultancy services for conducting an evaluation of immunisation coverage monitoring methodology and process. Synthesis of findings and conclusions. RFP-GAVI ALLIANCE-07-06. January 2009.


