POEM (Policy Effects Mapping tool) or how to assess the effects of a targeted policy on the local health system

Delivery room Orodara Burkina Faso

OVERVIEW

Most programme or policy evaluations aimed at improving maternal health assess the effects on the target group (mothers and newborns) or on services targeted by the policy, such as the workload or the quality of care of the maternity service or operating theatre. As part of the FEMHealth project, we have assessed the effects of user fee exemption policies for maternal care in Benin, Burkina Faso, Mali and Morocco on the local system, looking beyond the services directly targeted by the policy. First, an analytical framework was designed by adapting the WHO's well-known health system model with its 6 core functions or " building blocks ", placing the stewardship function at the heart of the health system. The assumption is that the different dynamics within the local health system and in particular the effects of policy on the stewardship function (and inversely the effects of the stewardship function on the implementation of the policy) may have an influence on the impact of the policy on targeted and non-targeted services. A collection of quantitative and qualitative data by multidisciplinary (public health, health economics, sociology/ anthropology) teams was carried out in 6 different districts in each of the 4 countries. The routine health information system was used and complemented with interviews with health providers and managers.. More than 350 interviews were thus conducted in the

KEY MESSAGES

- The POEM or 'Policy Effects Mapping tool' is an analytical framework used for assessing the positive and negative effects of a targeted policy on the local health system.
- Any new health policy, and even public and national policies, is seen as an external element to the local health system that will need to be integrated, adapted to the context ; its implementation will depend on the needs felt by healthcare providers and managers and on the degree of flexibility left to local actors.
- The POEM tool is based on a mixed (quantitative and qualitative) approach and requires a multidisciplinary (public health, health economics, sociology/ anthropology) team.
- To assess the effects on the whole local healthcare system, it is important to clearly define the target audience and the non-target audience of the policy that we want to study and to include in the data collection, support services (laboratory, pharmacy, ambulances) and the other services not targeted by the policy.
- The analytical unit of the POEM is the health district. The dynamics among the various elements of the system within the same district are analyzed. We then look for similarities and differences with other districts of the same country, and in other countries if it is a multi-centre/multi country study.

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4 countries. The data was analyzed on 3 levels: firstly at district level , ; secondly, a comparative analysis between sites in the same country, and finally, a comparative analysis among the sites of all countries. Patterns occur across borders, in particular the effects of the stewardship function on the application and adaptation of policy. Based on the effects documented in the FEMHealth studies and a comprehensive literature review, the POEM tool was - in a second phase - adapted in a version generally applicable to policies other than maternal health care (distribution of vitamin A, exemption for HIV patients, etc.).

THE RESEARCH PROBLEM

For the past ten years, in the race for the achievement of the Millennium Development Goals, many Governments or international agencies have implemented targeted policies for specific pathologies (HIV, Tuberculosis, Malaria) or for vulnerable groups (under-five children, pregnant women, the elderly).
Most of the assessments of these targeted policies measure the expected effects on the target group or the services targeted by the policies (workload or quality of care), but few have studied the wider effects on the local health system and on groups or services not targeted by the policies. Any new policy, even a national policy from the Ministry of Health, comes as a 'foreign' element in a local health system, that will need to be assimilated, adopted, and implemented within a very short time frame with partial information.

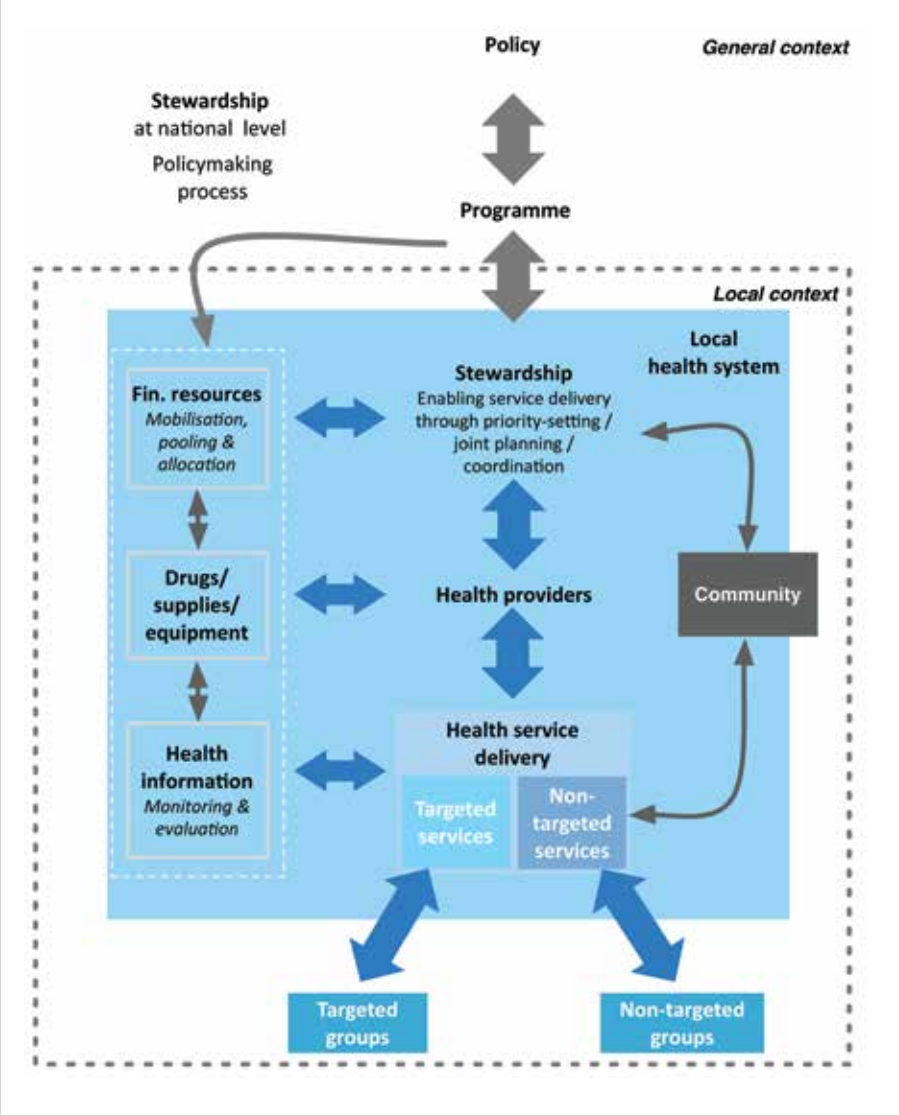
To date there are no tools or analytical framework to measure the effects of a targeted policy at the level of a local health care system. The reference is the WHO model with the 6 functions (service delivery; human resources; information; financial resources; medicines, vaccines and technologies; financing; leadership/ governance), but it is intended for the national system and gives no indicators for the local level. Moreover, this model is static: each function is looked at individually without the possibility of highlighting the links and influences of certain functions on others. The community is also absent from the model.

It is to address this need that the FEMHealth project has proposed and tested a method to measure the effects of a targeted policy on the various elements of the health system and on non-targeted services and groups. The tool was applied initially to the user fee exemption policies for maternal care ("free" caesarean section) in Benin, Burkina Faso, Mali and Morocco. Next, taking into account the lessons of the test in the 4 countries, the POEM tool was adapted in a version generally applicable to policies other than maternal health care (distribution of vitamin A, exemption for HIV patients, etc.).

THE CONCEPTUAL FRAMEWORK

A framework for analyzing the effects of a targeted policy on the local health system (POEM: Policy Effects Mapping Tool) was proposed by adapting the 2007 WHO model of the health system with the 6 building blocks, by putting the stewardship function and human resources at the heart of the health system and by studying the dynamics between the blocks or functions of the health system. The key dimensions of each function and related indicators were identified based on a literature review.

Figure1. The local health system reviewed by FEMhealth



COLLECTION TOOLS AND SOURCES

The routine health information system was used and complemented with interviews with health staff and managers .

List of data collection tools

- Retrospective 2005-2011 Excel files (activities of different services, human resources, pharmacy...)
- Prospective 2012 Excel file (lack of personnel, team meetings, stock out of essential medicines in delivery room)
- Observation Excel File (stock outs, equipment, services)
- Trainings and documents Excel File (supervision, team meeting in the last 6 months, specific training for the exemption and reference materials)
- Excel file on the use of services in 2011 (per health area)
- Semi-structured interviews: district supervising team, hospital director, heads of services, care providers, community representatives (between 70-110 interviews per country)

Sources:

- Records of delivery room, consultations, hospitalization, operating room, pharmacy - District activity reports - Observation - Interviews

VARIABLES STUDIED

Description of the health system	
Description of the planned policy	
Evaluation of the implementation (with POLIAS)	
Evaluation of the effectiveness of the policy	
Influence on the results expected for the target group	Patient costs: direct (formal and informal) and indirect
	Trend in the use of the services by the target group
	Equity: costs and disaggregated use according to certain socio-economic determinants: urban/rural, poor/rich and level of education
Changes in the provision of services	Availability of target services
	Volume of target services
	(technical and relational) Quality of target services
Assessment of the influence of policy on non-targeted services and groups	
Effects on non-targeted groups	Use of care by non-targeted groups
	Cost of care for non-targeted groups
Effects on non-targeted services	Availability of non-targeted services
	Volume of non-targeted services
	(Technical and relational) quality of non-targeted services
Assessment of the influence of the policy on the resource functions	
Effects on financial resources	Timeliness and functionality of the reimbursement process
	Changes in the incomes of targeted, non-targeted services and at district level
Effects on medicines, equipment, consumables, infrastructure	Availability of resources for targeted services: tracer medicines, consumables, equipment, and related essential services
	Availability of resources for non-targeted services: tracer medicines, consumables, equipment, and related essential services
Effects on the Health Information System (HIS)	Reporting system created for the policy: number of new documents and procedures introduced, allocation of responsibility for the SIS to a specific framework, duplication of existing documents...
	Effect of the policy on the HIS service and staff: workload, strengthening the system, usefulness for decision making
Assessment of the influence of the policy on human resources	
Effects on managers Effects on service providers	Information, technical skills, remuneration, professional environment, workload, motivation
Effects on the stewardship function	
Changes in the autonomy of the stewards in terms of decision-making spaces	
Do stewards feel deprived of their responsibilities or strengthened in their role?	
Changes in the perceptions of stewards of their own role and the role of SSL	

METHODOLOGICAL CHALLENGES

At data collection level

The quantitative and qualitative data was collected by multidisciplinary (public health, anthropology, health economics) teams in 6 different districts or health zones in each of the 4 countries.

Retrospective data

One option for the POEM tool was to rely on the routine health information system for all retrospective data. The facility to retrieve data over more than 7 years was a challenge in some sites due to the lack of any back-up system and regular computer crashes. Thus, some sites have not had health data for 3 or 4 years in a row. In itself, this observation is already indicative of the management capacity of the district or the hospital.

Data was missing or not disaggregated in the routine health information system. It was found that not all data listed on the collection tools could be collected, either because the health information system did not require these variables (such as the differentiation between fresh stillbirths and macerated stillbirths), or because the degree of disaggregation of data was insufficient or different across countries. For some data missing from the health information system, researchers could fill the gap by going to the primary source using the records of the delivery room or the operating theatre, but this extended the collection of data and is not optimal in terms of research cost-efficiency.

Sensitive data

Some expected data could not be collected. These are mainly sensitive data on human resources (absenteeism). None of the countries could provide reliable data on this aspect. The issue of work in the private sector is also a sensitive one.

With respect to the analysis of the data

The challenge at the time of the analysis was to process the huge amount of data and the type of data (quantitative and qualitative). More than 350 interviews were conducted in the 4 countries and analyzed using N-Vivo qualitative analysis software. The analysis was made at both vertical (links and dynamics between the different elements of a same district) and horizontal levels (the patterns observed in the 6 districts of the country) and among countries (patterns among districts of different countries). An analytical guide was developed to incorporate quantitative and qualitative data.

The study of the dynamics between the various functions of the system and the causal links between the observed changes cannot be made by looking only at data for individual services, as this takes no account of confounding factors; only by triangulation of quantitative and qualitative data can we validate certain assumptions.

GENERALIZATION OF THE TOOL - RECOMMENDATIONS FOR THE FUTURE

Following this first full-scale test, the tool was further refined. Some variables have been removed, others added so that the POEM tool can be used for other targeted policies. One of the lessons is that this is not a quick exercise and that the routine information system is not sufficient to measure the effects of a policy on the local health system. Interviews should be conducted with key informants to ensure understanding of local dynamics.

A second lesson is that data on all variables cannot always be collected, because each country has a different health information system. However, even with some missing data, we have a pretty good overview of the reality; lack of completeness of the data is therefore not a barrier if the other variables are available.

Contact: any questions on the POEM tool? You can contact Bruno Marchal from the Institute of Tropical Medicine of Antwerp (bmarchal@itg.be).

Archiving of medical records - Benin

A FEW KEY REFERENCES

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