



Assessing the implementation of health financing policies – a proposed approach and discussion of its application to an emergency obstetric care exemption policy in Benin

FEMHealth discussion paper

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Background

In making judgements about the impact of a policy, it is generally assumed that implementation has been reasonably effective. However, evaluations of real-life policy changes often find that implementation has only been partial, and/or has deviated from the original objectives or methods (1-3). The FEMHealth project, as part of its methodological development work, therefore explored the development of an implementation score to give an overall summary indicator for the extent to which a health policy has been realised. We have focussed on health financing policies, as the project is conducting multi-disciplinary evaluations of fee exemption policies for obstetric care in West Africa and Morocco (4).¹

This paper focuses on health financing policies, and on ways of measuring (and presenting a measurement of) their implementation. More specifically, this paper explores whether there can be a simple measure of the degree to which a health financing policy has been put into effect in reality. The objective is to fill a gap, in that there appear to be limited approaches documentation on how to measure implementation of financing policies. Yet these policies are growing in importance, particularly as countries try to reduce financial barriers for users, to increase access to priority services, especially for vulnerable groups, and to move towards greater financial protection for all. As policies are put in place, we need to know how far and deep they reach. This is also an important dimension to present alongside evaluation and impact evaluation findings. If policies are only partially implemented in practice, then this is crucial to interpreting other findings, such as service uptake or health outcomes. Moreover, presenting shallow coverage can prompt more investigation into the blockages and demand- and supply-side factors that are preventing greater penetration. However, the score, if drawn up, should not be used mechanistically. It is not an alternative to understanding the details of a policy context. It would aim simply to be a summary measure that could prompt further reflection and action.

This paper starts with a description of the research methods, including an exploration of existing literature and original data collection tools. We then present findings on existing frameworks and how these could be adapted, and apply them to the policy in Benin. This leads to a discussion of the issues raised and conclusions about the utility and feasibility of this approach.

Methods

We started with a literature review in June 2011. The following search terms were used: Health AND Financing, or Policy, or Programme, or Scheme AND Implementation or Assessment or Measurement or Performance or Index. No dates or language restrictions were imposed. The literature review was conducted using Medline, Embase, EconLit, WHOLIS, Cochrane, PubMed, Google and Google Scholar. Institutional websites were also searched, including the World Bank, the Global Fund, GAVI, WHO and USAID. Only 22 were found with relevance to health financing policies in the end, and none of them yielded

¹FEMHealth stands for 'Fee exemption for maternal health'. The project, funded by the EC, is conducting multi-disciplinary evaluations of obstetric fee exemption or subsidy policies in West Africa and Morocco. For further details about the project, see: www.abdn.ac.uk/femhealth

findings on the specific question of interest. The search mainly picked up studies on programme evaluation methods and some on health system performance.

Following the literature review, a framework was adapted and applied to the obstetric fee exemption policies under study in the FEMHealth programme. The results from Benin are presented as an illustration. Five health districts were purposively selected from 3 hierarchical clusters of all those with at least 150,000 inhabitants and 50 caesarean sections per year before the start of the policy. The hierarchical clustering was based on the geographical accessibility of the health facilities, the utilization of these facilities and the level of poverty of the population. The criteria of the purposive selection were the existence of previous research on the quality of care in these health districts, as well as logistical factors. All the hospitals which applied the policy in the five health districts of the FEMHealth research project in Benin were included.

Data to assess implementation was taken from national level reports, from exit interviews with 294 women who had delivered through caesarean section in seven hospitals in the five districts and from 42 semi-structured interviews with managers and care providers in the same hospitals. For the exit interviews, a questionnaire focussed on experiences of delivery care, delays in reaching care, and expenditure for the delivery was administered non-randomly to all women who had a caesarean in the selected hospitals over the period of fieldwork in 2012. Questionnaires were administered as women were leaving hospital by trained data collectors. For the key informant interviews, an interview guide was prepared which focussed on the implementation of the policy in the research sites, and its effects on target and non-target groups and services. Informants were selected purposively, according to certain categories (facility in-charges, district representatives etc.). Interviews were conducted between March and May 2012 by trained researchers.

Data analysis was carried out using Excel for the routine data reported at national level, STATA for the exit interviews and NVIVO 10 for the key informant interviews. The general research protocol was given ethical approval by the National Ethics Committee for Health Research (N° N°0792/MS/DC/SGM/DFRS/SRAO/SA). Informed consent was gained from all participants and confidentiality assured through anonymisation and safeguarding of data. Tools were pretested prior to fieldwork in non-study areas.

Results

Existing health financing indicators, tools and frameworks

A standard but fairly limited set of indicators have been developed for assessing health systems, based on the WHO building blocks (5). For health financing, the standard reported measures (6) (usually obtained from National Health Accounts exercises) include the ratio of household out-of-pocket payments for health to total health expenditures. This provides an indication of likely financial protection (risk and also the likelihood of catastrophic spending²

² Measured in different ways, but often considered to be expenditure on health care that exceeds 40% of disposable household expenditure or 10% of total expenditure (5)

being directly linked to the proportion of total spend that is out of pocket). It does not however allow direct assessment of implementation of a specific policy.

The same limitation applies to the framework for assessing coverage with 'social health protection' that was developed by the ILO (7). It is based on three core principles of:

- a) universal and equitable access;
- b) financial protection in case of sickness; and
- c) overall efficient and effective delivery of health services.

This emphasises the need for a number of key components, including solidarity and risk sharing; physical and financial access to services; effective protection against high health care costs; and the provision of services, which are of a required quality and effectiveness.

In the literature on insurance, membership is taken as coverage, and this could be considered a proxy indicator for actual implementation. However, it is an inadequate measure, as financial protection is assumed, but is often absent in fact. To give an example, China now has 85% coverage with its New Medical Coverage scheme but the depth of coverage is known to be shallow, with households continuing to pay the bulk of medical costs (8).

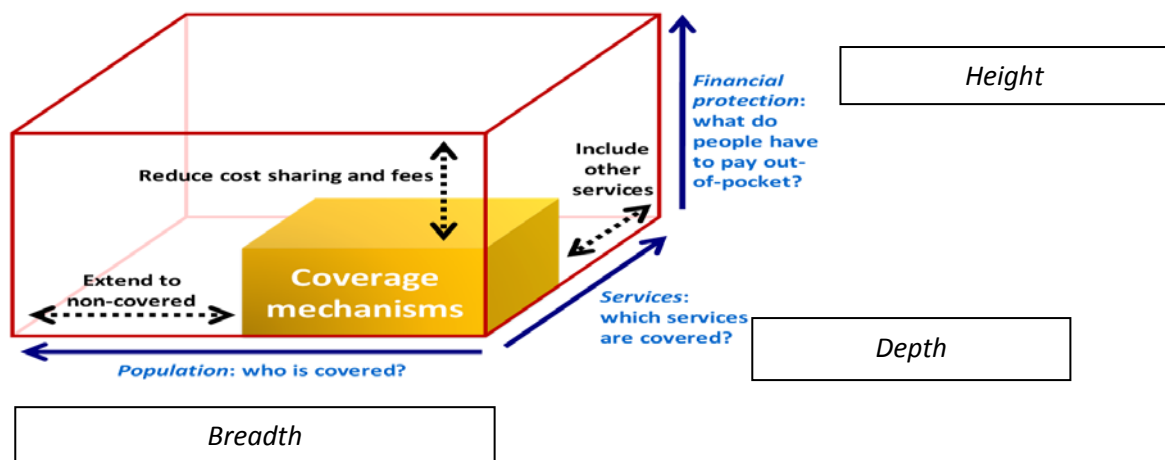
Coverage for services has been measured using composite indicators that compile data on a number of essential services. The Countdown 2008 Equity Analysis Group, for example, included coverage of family planning, maternal and newborn care, immunization, and treatment of sick children (all equally weighted) within its coverage gap index (9). This approach, which focuses on utilisation, includes some but not all of the elements which are important for implementation of financial policies.

Proposed adapted framework and its application

A starting point for thinking about coverage in relation to financing policies is the three-dimensional model developed in the 2010 World Health Report (10) (Figure 1). It presents the population covered ('breadth'), the services to which they have access ('depth') and the degree of protection against costs from which they benefit ('height'). This is based on the notion that universal coverage implies access to appropriate care but also financial protection against catastrophic costs associated with that care. Assessing implementation of more specific health financing policy might start from these three dimensions, tailored to the policy objectives. A fourth dimension of time might also be added, given the history of poorly sustained initiatives (11).

Figure 1 The WHO universal coverage model

Towards universal coverage



Source: WHO, 2010

If the aim is to measure implementation of a policy, then the reference norms for assessment must be the original policy goals, although this can be problematic when these are not clearly articulated. To compare with anything else becomes a critique of policy design, rather than an assessment of implementation.

The FEMHealth project studied policies to exempt emergency and routine obstetric care in four countries in West Africa and the Maghreb. These policies can be used to test out the feasibility and utility of a policy implementation score. They are all being implemented as stand-alone initiatives, albeit embedded in a web of wider health financing and exemption policies. Here we consider how to apply the cube model, using the policy in Benin as an illustration.

The free caesarean policy was introduced in Benin on the 1st April 2009. It applies to c-sections in all public and private hospitals that offer emergency obstetric care (but not to private-for-profit clinics). All women are entitled to benefit and all areas of the country are covered, in theory. Hospitals are reimbursed 100, 000 CFA per woman with a c-section. This is intended to cover check-up costs, drugs, kits, surgery, blood, and hospitalization. The women pay for any costs arising before hospitalization, or any other complication which may arise during the hospitalization. No external study of the policy has yet been published (12).

1. Breadth

Population coverage in this policy aimed for 100% of women who need caesareans. This is a population that is hard to assess though, as many women who need a c-section do not receive one, and conversely, many (often richer) women who do not need one may receive one. Using routine data, the overall c-section rate could be compared with the 5-15% of deliveries, which are expected to present complications globally. The gap could then

indicate level of coverage. The difficulty here is that the distribution of c-sections tends to be very skewed, so averages are misleading, though for countries where rates are below 1-2% for the total population, such as Burkina Faso, this can be taken to indicate real unmet need. Moreover, coverage or lack of coverage reflects pre-existing market conditions (e.g. access to services which can offer c-sections) more than the implementation of the policy per se.

At the national level, data on number of c-sections funded under the policy, compared to total number of c-sections provided nationally, is the simplest proxy for population coverage by the policy (albeit with the reservations mentioned above – principally that policy coverage is not the same as met need for an intervention which is not universally relevant, but requires appropriate clinical judgments to be made, as is the case for caesareans). If we apply this to Benin (see Table 1), we find that coverage under the policy has been rising – in 2009, it was higher than the expected 4% of deliveries (government calculations use 5% of the population in the region to obtain expected deliveries, and 4% of these for expected c-sections, the latter figure being based on the national average from the DHS in 2006). However, the 4% needs to be adjusted to reflect rising demand, which the policy is also stimulating. It is also very unequally distributed across regions, as the table shows, with the area around Cotonou (Atlantique/Littoral) raising the average, while inland areas lag behind. This is likely to be a result of greater access in the metropolitan area, combined with women coming as referred cases from other areas – the two being impossible to disaggregate from routine data. The numerator may also not be reliable, depending on how robust reporting and verification systems are within the programme administration. If the national policy reimburses facilities according to the number of services delivered, as is the case in Benin, then it is also possible that there is over-reporting, unless control and verification systems are robust.

Table 1 Breadth of c-section exemption coverage at national level, Benin

Départements	Funded CS as % of estimated total deliveries			Gap in 2011 compared to current estimated utilisation (5%)	Score for breadth (expectation of 5% coverage), 2011
	2009	2010	2011		
Alibori/Borgou	2.90%	3.60%	3.80%	-1.2%	76%
Atacora /Donga	1.60%	2.50%	2.60%	-2.4%	52%
Atlantique /Littoral	5.60%	8.20%	9.30%	4.3%	186%
Mono /Couffo	1.60%	2.60%	3.10%	-1.9%	62%
Ouémé /Plateau	2.20%	3.10%	3.10%	-1.9%	62%
Zou /Collines	2.00%	3.60%	4.00%	-1.0%	80%
National	2.90%	4.20%	4.60%	-0.4%	92%

Source: data from the Agence Nationale de la Gestion de la Gratuité de la Césarienne, 2009-11 (note that for 2009 the data was gathered from April to December, as the policy was implemented on 1st April 2009)

Another difficulty is knowing whether the funding really penetrated down the system (spending at national level cannot be assumed to equate to real benefits on the ground, at least without verification). The most robust source of data would be a household survey, which could assess what proportion of women who received a c-section were provided it free of charge. In addition to survey costs, this presents the difficulty that it would still miss those who needed, but did not receive a c-section. As this dimension captures geographical coverage as well as different population groups, the survey would need to sample from different areas, to ascertain variations in implementation across regions. Ultimately, if different proportions of women were found to be benefiting in different regions, that could be population-weighted to give an overall assessment of coverage in this domain.

If we assume that the aim of the policy is not just to fund the group already able to pay for C-sections, then it would be possible to define population coverage in relation to a socio-economic or geographical group with low financial access prior to the policy. What shift occurs after policy implementation in C-section rates in the lowest quintile, for example? However, given that the policy is universal, this is a narrowing of the original policy scope.

2. *Depth*

The range of services to be included in Benin is clearly defined – c-sections alone. Whether that is the most cost effective or high priority target group is a matter for evaluation (13), but in relation to assessing implementation, the focus would again be on whether women with caesareans accessed free care at the designated outlets. In relation to the policy in Benin, the population coverage domain is in fact the same as the services' one.

3. *Height*

All within-facility costs for the caesarean should be covered in Benin, along with some other elements such as referral for transport within the district. Data generated by FEMHealth exit interviews can reveal to what extent this has been realised, at least in six selected study districts (selected to include a range of poverty and access conditions). Detaching other costs that are not officially covered (prior medical costs; transport to the referring facility; separate complications; food; costs associated with family companions etc.) leaves us with a residual amount paid for theoretically free costs under the policy by the women who were interviewed. This varies across sampled referral hospitals. To convert this to an overall proportion is not simple, though if there are baseline figures for payments for c-sections, then these could be used as the denominator. Previous tariffs can also be used, but these tend to understate the full costs incurred, even within the facilities. For the purposes of this exercise, then, we have treated full implementation as zero, for included cost elements, with the top of the scale (worst performance) provided by the maximum reported expenditure for those items in our survey (see table 2 below).

Table 2 'Height' of coverage of free caesarean policy, Benin

Hospital number	Minimum paid	Mean	Median	Maximum	Rank	Score*
7	0	2,588	0	18,000	1	100%
5	100	5,794	3,500	30,000	2	87%
1	0	6,711	5,700	35,895	3	79%
4	1,950	7,905	7,630	14,780	4	72%

6	2,700	8,858	7,750	22,500	5	71%
3	0	9,009	9,630	20,400	6	65%
2	25,400	30,631	27,150	75,900	7	0%
Total	0	8,852	5,735	75,900	-	68%

*The score is inversely related to out of pocket payments reported by women for costs which should be free under the policy. The total is an unweighted average.

Analysis by levels of the health system

We could apply the implementation score at different levels of the health system: the theory (what the policy promises); a national level assessment, which relies on rapid assessment through routine national and policy-related data (resources realised at national level); a more in-depth district or facility level assessment, possibly using qualitative methods to understand what elements of the package are being provided freely by providers; and a community-level assessment, to understand the degree to which the services are really free for users. There may be gaps between each of the layers. A gap between the first and second would call for more investigation of national policy processes and resource mobilisation. A gap between the second, third and fourth would focus attention more on systemic issues of how the policy is operationalized and is interacting with real health system features. Any impact evaluation would need to take account of the findings of implementation assessment at beneficiary level.

Figure 2 gives an example of this framework applied to the free caesarean policy in Benin. The theoretical package is defined in the first layer, using the three dimensions. National data is then used to assess general coverage. As shown in Table 1, for 2011, reported width of coverage at the national level was around 92%, if the data are accurate. We have no basis at this level for independently assessing depth or height of coverage. A fixed amount of 100,000 CFA is paid per c-section in Benin, which is supposed to cover all costs, so both depth and height should be 100%.

Moving to the facility level, key informants were interviewed to understand what services they offered without charge in practice to women needing caesareans. Table 3 below summarises the responses for seven hospitals in Benin (six first-line hospitals and one a referral centre). It can provide a score of sorts, though only qualitative, and focused on the depth of package (cost items included, with an untested assumption of 100% breadth and height).

Table 3: Services reported to be free to women needing caesareans in seven hospitals in Benin, 2012

Cost items	Hospital 1	Hospital 2	Hospital 3	Hospital 4	Hospital 5	Hospital 6	Hospital 7	Hospitals reporting item free
Referral within the district								2/7
Starting IV infusion before referral								0/7
Consultation								2/7

Cost of surgery								6/7
Drugs								1/7
Supplies								2/7
Cost of hospitalisation								5/7
Post surgery control								6/7
Preanesthesia check-up								5/7
Laboratory and diagnostic tests								4/7
Blood								0/7
Free items per hospital out of total items	3/11	1/11	3/11	7/11	8/11	7/11	7/11	

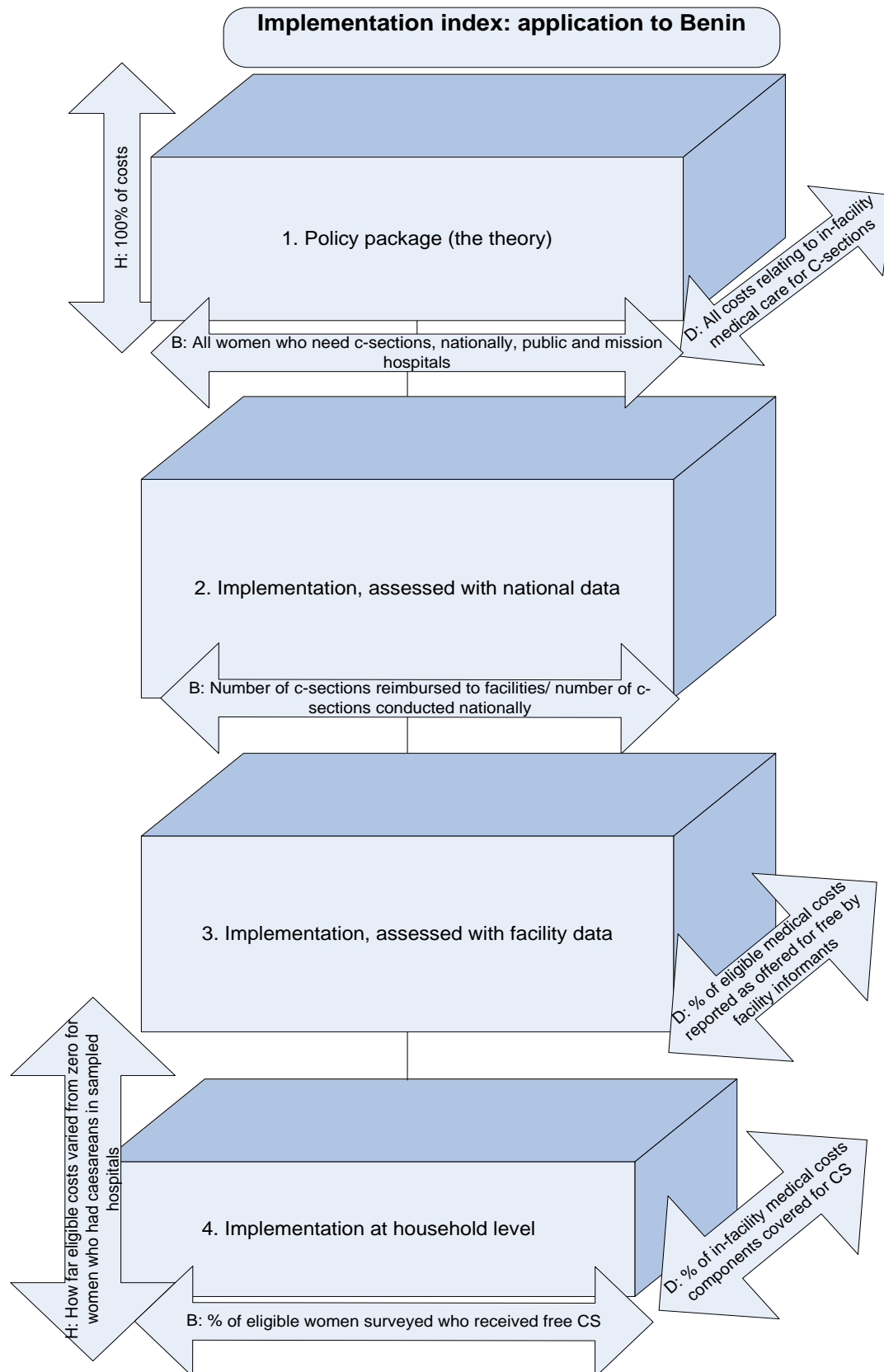
: Not free
 : Partially free
 : Free

Note: the first eight cost items are specifically mentioned in the presidential decree of 2008 as being included; pre-anaesthetic check-ups, tests and blood are not listed but are logical components of the package.

It is clear from this table that there is considerable variation across hospitals in how the policy is being applied, and that even items which are clearly specified in the policy as being provided for free, such as referral transport, are in practice charged, according to facility informants. Moreover, costs incurred at first line providers (such as health centres) are not included in the policy, and so are charged to the patient.

Moving to the fourth level, using exit interviews it was possible within this project to assess depth and height, but not width, as the interviews focused on users, and so cannot illuminate population coverage. Asking users about how much they paid for different items which should have been free allows us to construct a score by facility (see Table 2).

Figure 2 Assessing implementation of health financing policy, by level, example of free caesarean policy in Benin



Discussion

Underlying the cube is a utilitarian model – maximisation without particular consideration of which social groups are covered, for example. On a population basis, this is very debatable. However, if the model is applied to a policy that already targets a ‘vulnerable’ group, then this simplifying assumption is more acceptable.

In itself, it also contains no value judgement about which dimension is most significant. For aggregation purposes then, a score could in theory be constructed which simply multiplies the dimensions to get an overall coverage rate, assuming that reliable measures of the three dimensions can be obtained.

On a practical level, there is an obvious difficulty that the cube will not in fact be uniform – for each service in the package, for example, different populations may have different rates of effective coverage and protection, causing the surface to undulate. (If the fourth dimension is added, then there will be even more variation, as policies are implemented in different ways or sustained at different levels over the years.)

Some domains are missing from this framework, compared to the ILO one. The WHO cube focuses on effective entitlement to services, but does not offer any judgement about how the policy is funded (e.g. solidarity, risk pooling), whether people take up the services (utilisation), the distribution of coverage (equity) or the effectiveness of interventions and quality of care on offer (including acceptability and responsiveness), although these have been incorporated in the wider literature on universal health coverage (14).

All of these are critical to evaluating the success and impact of a policy, but for assessing *implementation* of a health financing policy, the three (or four) dimensional cube can be argued to lie at the core, as it would allow an assessment of the degree to which the policy (1) covers the targeted population; (2) provides access to the full package of targeted services; and (3) provides effective financial protection.

No existing papers were identified that specifically addressed the issue of trying to measure implementation of a health financing policy, though it is possible that a wider search would have yielded other relevant approaches. There is a body of literature on implementation barriers and how to improve implementation of health financing policies - (15) and (16), for example. Within the FEMHealth project, we have developed tools to map the overall effects of such policies at district level, and to explain difference in dynamics between areas, using realist evaluation case studies³. However, the simple challenge of presenting the degree of actual implementation remains. This has been the focus here.

³ <http://www.abdn.ac.uk/femhealth/outputs-and-dissemination/reports-and-policy-briefs/>

Conclusion

This paper considers how we can measure the degree of implementation of a health financing policy, looking at existing frameworks and approaches and testing their applicability to the case study of obstetric fee exemption policies in four countries in West Africa and the Maghreb. There is very limited literature in this area, but we have proposed using an adaptation of the WHO universal coverage cube, with its three dimensions of breadth, depth and height. A fourth dimension is time, which reflects temporal changes to coverage, though that has not been incorporated in the case study presented here.

Applying these to a specific policy implies comparing the 'ideal' package, as specified in the policy documents (if these are clearly specified), with national level data to get an estimate of breadth. However, district and household level data will be necessary to reality-check the degree to which benefits have really reached their intended targets, particularly in terms of depth and height.

It is clear from this case study that some estimate of implementation is possible at the national level, but using routine data, it is hard to obtain more than rough estimates of some dimensions. At local level, the dimensions are easier to assess, though this requires non-routine methods. The assessment also needs to be repeated periodically, as policies and their coverage are very dynamic.

Whether the dimensions are better presented separately or aggregated into a single score is debatable. The advantage of the model is to separate the three dimensions conceptually, which would be lost if amalgamated. In the case of Benin, if we combined the breadth assessment from the national level and the height/depth assessment based on exit interviews in seven hospitals, we would come up with a combined score of 63% implementation⁴. However, this is relatively meaningless compared with disaggregated results, not only by dimension but also by hospital, which illustrate the variations in practice.

Although this framework has been applied to a very specific set of policies relating to emergency obstetric care, it is potentially applicable to any policy which aims to transfer financial benefits. The framework helps to conceptualise the different dimensions of implementation. It can complement but does not substitute for other important research tasks, such as understanding why implementation has been varied, for example, whether preconditions for effectiveness were in place (e.g. facility functionality) or whether the policy has achieved its desired impacts.

Note, finally, that desired impacts are not always clearly specified in policy documents. If behaviour change is the focus of the policy, then the extent of awareness amongst target groups may be a more important measure than coverage in terms of receiving benefits from

⁴ Average of 92% coverage of CS nationally multiplied by average of 68% performance on charging, according to our Table 2.

it. Conversely, if financial protection is the focus, actual receipt of benefits should be at the heart of monitoring, in which case this framework is applicable.

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