6. Cross-national analysis

Lucy Gilson
University of Cape Town, South Africa and London School of Hygiene and Tropical Medicine, United Kingdom of Great Britain and Northern Ireland

Health policy and system developments are often country-wide in scope, as in a national policy change or nationwide implementation of a new health system intervention. Therefore, analysing these experiences to understand the impacts of particular changes or interventions and the pathways of change (i.e. how these impacts are achieved) must be undertaken at country level. However, the transferability of health policy and systems lessons from one country to another is commonly questioned because the long and complex causal pathways underlying their effects allow contextual features to influence their effects in many ways (Mills, 2012). As a result, various analysts have called for studies that identify plausible rather than causal links between health policy and systems interventions and their impacts, and for direct examination of the contextual factors under which particular interventions achieve their impacts (Janovsky & Cassels, 1995; McPake & Mills, 2000; Victora, Habicht & Bryce, 2004).

Cross-national analysis may, therefore, be helpful in not only understanding the forces driving health policy and systems interventions but also influencing their impacts. Such comparative analysis should allow critical contextual features to be identified and their influence over interventions and subsequent impacts to be considered. Recent advances in impact evaluation and, particularly, ideas around theory-based evaluation offer valuable approaches for use in such analyses (see Part 4: ‘Advances in impact evaluation’). At the same time, cross-national studies can be seen as, in effect, country-level case studies, with comparative analysis then allowing general conclusions about particular interventions and influences over their effects to be teased out through the approach of analytic generalization (see Part 1: Section 7, and Part 4: ‘The case study approach’). However, given the scale, complexity and cost of conducting any form of cross-national HPSR work, there remain relatively few such studies. The criteria for assessing study quality and rigour must clearly be appropriate to the particular overarching research approach adopted (fixed, flexible or mixed-method: see Part 2: Step 3).

A different role for cross-national analysis is in the assessment of various dimensions of health system performance drawing on standardized data and classification systems. Stimulated by the publication of the World Health Organization’s World Health Report of 2000 on health systems’ performance, the work using National Health Accounts is one example of such analysis. Cross-national health and health systems analysis is now also the subject of wider debate and development, although the development of appropriate databases and rigorous analytic tools remains in its infancy.

References


Overview of selected papers

The papers in this section illustrate the types of questions and approaches that can be analysed in cross-national HPSR.

Bryce et al. (2005) report a seminal intervention evaluation that drew on a plausibility approach to assessing impact and examined the implementation of one health policy and system intervention (the integrated management of child illness programme) in different national contexts. The aim was to understand what contextual factors were of most influence over the intervention’s impacts. Countries were selected for inclusion because they had implemented the Integrated Management of Childhood Illness (IMCI) strategy.

Gilson et al. (2001) report a study that, using policy analysis theory to guide it, adopted a comparative case study analytical approach to gain insight into how to support implementation of a financing policy (the Bamako Initiative) in any setting. Countries were selected for inclusion because they had implemented some form of the Bamako Initiative in Africa.

Lee et al. (1998) report an eight-country study that, using policy analysis theory, adopted a comparative case study analytical approach to draw out general conclusions about how to strengthen the implementation of family planning programmes. Countries were selected on the basis of available data and to allow comparison and contrast of experience between strong and weak national family planning programmes in four pairs of contrasting national socio-economic contexts.

O’Donnell et al. (2007) report a study that uses comparable, quantitative data from household surveys to conduct statistical analyses of the incidence of public health expenditure in 11 Asian countries and provinces. They concluded that pro-poor health care requires limiting the use of user fees, or protecting the poor from them, and building a wide network of health facilities.

References for selected papers


Programmatic pathways to child survival: results of a multi-country evaluation of Integrated Management of Childhood Illness

JENNIFER BRYCE, CESAR G VICTORA, JEAN-PIERRE HABICHT, ROBERT E BLACK AND ROBERT W SCHERPBIER ON BEHALF OF THE MCE-IMCI TECHNICAL ADVISORS

Objective: To summarize the expectations held by World Health Organization programme personnel about how the introduction of the Integrated Management of Childhood Illness (IMCI) strategy would lead to improvements in child health and nutrition, to compare these expectations with what was learned from the Multi-Country Evaluation of IMCI Effectiveness, Cost and Impact (MCE-IMCI), and to discuss the implications of these findings for child survival policies and programmes.

Design: The MCE-IMCI study designs were based on an impact model developed in 1999–2000 to define how IMCI would be implemented at country level and below, and the outcomes and impact it would have on child health and survival. MCE-IMCI studies included: feasibility assessments documenting IMCI implementation in 12 countries (1999–2001); in-depth studies using compatible designs in Bangladesh, Brazil, Peru, Tanzania and Uganda; and cross-site analyses addressing the effectiveness of specific subsets of IMCI activities.

Results: The IMCI strategy was successfully introduced in the great majority of countries with moderate to high levels of child mortality in the period from 1996 to 2001. Seven years of country-based evaluation, however, indicates that some of the basic expectations underlying the development of IMCI were not met. Four of the five countries (the exception is Tanzania) had difficulties in expanding the strategy at national level while maintaining adequate intervention quality. Technical guidelines on delivering interventions at family and community levels were slow to appear, and in their absence countries stalled in their efforts to increase population coverage with essential interventions related to careseeking, nutrition, and correct care of the sick child at home. The full weight of health system limitations on IMCI implementation was not appreciated at the outset, and only now is it clear that solutions to larger problems in political commitment, human resources, financing, integrated or at least coordinated programme management, and effective decentralization are essential underpinnings of successful efforts to reduce child mortality.

Conclusions: This analysis highlights the need for a shift if child survival efforts are to be successful. Delivery systems that rely solely on government health facilities must be expanded to include the full range of potential channels in a setting and strong community-based approaches. The focus on process within child health programmes must change to include greater accountability for intervention coverage at population level. Global strategies that expect countries to make massive adaptations must be complemented by country-level implementation guidelines that begin with local epidemiology and rely on tools developed for specific epidemiological profiles.

Key words: child survival, IMCI, public health programme evaluation, child health

Introduction

The Integrated Management of Childhood Illness (IMCI) strategy

Integrated Management of Childhood Illness (IMCI) is a strategy for reducing mortality among children under the age of 5 years (Tulloch 1999). UNICEF, the World Health Organization (WHO) and their technical partners developed the strategy in a stepwise fashion, seeking to address limitations identified through experience with disease-specific child health programmes, and especially those addressing diarrhoeal disease and acute respiratory infections (Claeson and Waldman 2000). Elements of the strategy were developed in a rough sequence...
from: (1) evidence-based guidelines for health workers serving high-mortality populations that defined clinical case management actions to respond to common infectious diseases in childhood and the delivery of key prevention services including immunization and nutrition interventions; (2) health worker training in the guidelines based on paediological principles of supervised practice in clinical settings and follow-up of trainees to assist with the establishment of new practices; (3) attention to needed health system supports for child health and development, based on the recognition that health workers are not isolated, but work in systems that, if not strengthened, would limit their abilities to perform good work; and (4) strengthening of family practices needed to prevent disease, to stimulate appropriate utilization of health services, and to improve home care for sick children. Figure 1 presents the components of the IMCI strategy and the interventions WHO and UNICEF initially proposed for inclusion within each component (WHO 1999a).

The IMCI case management guidelines for the integrated management of sick children in a first-level health facility were designed to address the major causes of child mortality in countries with infant mortality rates of 40 per 1000 live births or greater (Gove 1997; WHO 1998a). Undernutrition, an underlying cause contributing to over 50% of deaths in children between the ages of 1 month and 5 years (Pelletier et al. 1995; Caulfield et al. 2004), was also a major target. Interventions in the generic IMCI guidelines therefore included the provision of antibiotics for pneumonia and dysentery, antimalarials for fever in settings where malaria was endemic, oral rehydration therapy for the prevention and treatment of dehydration due to diarrhoea, and the use of Vitamin A as a treatment for measles (Gove 1997). Undernutrition was addressed by having health workers counsel caretakers about appropriate feeding, including breastfeeding. The guidelines were adapted in each country (WHO 1998b), resulting in a set of tasks to be performed by the health worker(s) including a full assessment and classification of the child’s condition leading to a determination of treatment, and counselling of the caretaker on administration of medicines, appropriate home care, and the conditions under which the child should be brought back to the facility. The guidelines also recommend the use of the illness episode as an opportunity for the delivery of preventive interventions, including vaccines and nutritional counselling.

The generic IMCI training course was developed based on these guidelines, and emphasized supervised clinical practice (Gove 1997). In addition, the IMCI training approach recommends that each participant receive a follow-up visit from their trainer within 4 to 6 weeks after the initial training in order to help them implement their new skills (WHO 1999a).

IMCI programme developers incorporated the need for specific health system supports into the strategy itself (see Figure 1), an important step forward from the disease-oriented programmes of the past. The expectation was that introducing IMCI would contribute to these needed health systems changes, strengthening existing systems for supervision, drug supply and health information.

The vision for the strategy also included the need to deliver interventions at the community level aimed at improving family practices — such as appropriate
careseeking and home management of illnesses – that would act synergistically with improving health worker skills at the facility level. WHO and UNICEF defined a set of 12 key family and community practices and commissioned a synthesis of evidence supporting their importance relative to child health and survival (Hill et al. 2004).

Implementation of the IMCI strategy

IMCI was first introduced at country level in 1996 by Tanzania and Uganda. In the 9 years since then, over 100 additional countries across all geographic regions have adopted the strategy and gained significant experience in its implementation (WHO 2005a).

The global planning guidelines for use by countries in implementing IMCI recommended three stages (WHO 1999b). In the introductory phase, countries conducted orientation meetings, trained key decision makers in IMCI, defined a management structure for preparing for IMCI, planning and early implementation, and built government commitment to move forward with the IMCI strategy. In the early implementation phase, countries gained experience while implementing IMCI in limited geographic areas. They developed their national strategy and plan, adapted the IMCI guidelines to their national context, developed management and training capacity in a limited number of districts, and started implementing and monitoring IMCI. The end of this phase was marked by a review meeting with the objective of synthesizing early implementation experience and planning for expansion. In the expansion phase, countries increased both the range of IMCI interventions and IMCI coverage. An important challenge emphasized in planning for the expansion phase was maintaining quality while expanding coverage.

The Multi-Country Evaluation of IMCI Effectiveness, Cost and Impact (MCE-IMCI)

The MCE-IMCI includes studies of the effectiveness, cost, and impact of the IMCI strategy in Bangladesh, Brazil, Peru, Tanzania and Uganda (Bryce et al. 2004). In-depth studies assessing the feasibility of conducting a large-scale impact evaluation like the MCE-IMCI were conducted in seven additional countries. Planning for the MCE-IMCI began in 1997, just as the first countries were adapting the IMCI strategy and moving into the early implementation phase. The evaluation objectives were to assess the behavioural, nutritional and mortality impact of IMCI, as well as to document the effect of IMCI interventions on health worker performance, health systems and family behaviour. The MCE-IMCI was planned as one part of a larger research agenda that included efficacy evaluations of the individual interventions within IMCI, as well as qualitative and operations research. Details about the development, design and implementation of the MCE-IMCI are available elsewhere (Bryce et al. 2004). A key focus of the MCE-IMCI was the implementation of the IMCI strategy in the hands of governments, and the results therefore have relevance to efforts to improve the delivery and utilization of a broad range of public health interventions (Bryce et al. 2003; Victora et al. 2004).

The IMCI impact model

The MCE-IMCI Technical Advisory Group was created in 1998, and included experienced researchers and evaluators in the fields of child survival, economics and health policy. Advisors worked closely with IMCI developers from WHO and UNICEF to develop an impact model for IMCI. This model was needed as a basis for defining the specific types and magnitude of changes expected from the introduction of IMCI, for choosing indicators and for calculating sample sizes. Parts of this model were then computerized using an approach that was similar to that of Becker and Black (1996) and used to estimate the magnitude of mortality reduction that could be expected from introducing IMCI in different settings.

Figure 2 presents a greatly simplified version of the model; the full model is available for review at [http://www.who.int/imi-mce/]. Each of the arrows in Figure 2 reflects an expectation among WHO programme staff in the late 1990s about the pathways through which the introduction of IMCI at country level would lead to improvements in child survival and nutrition. Important exceptions are the boxes on coverage, which were added only in 2004 based on the MCE-IMCI findings.

The temporal dimension of the model moves from level 1 to level 4. The first level defines the planning steps and inputs needed to initiate IMCI-related activities. The second level outlines how these activities were expected to lead to implementation of the IMCI interventions. The third and fourth levels specify the pathways through which these IMCI interventions were expected to lead to intermediate behavioral outcomes and to impact on health status, respectively.

The objective of this paper is to compare the findings of the MCE-IMCI relative to the programme expectations reflected in the IMCI impact model. We review five of the most important programme expectations from the impact model and describe the extent to which each was realized in IMCI implementation among countries participating in the MCE-IMCI. These expectations are: (1) The generic IMCI guidelines could and should be adapted and implemented in developing countries with an infant mortality of more than 40/1000 live births (WHO 1998a); (2) IMCI case management training would lead to improved quality of care at first-level health facilities; (3) The introduction and implementation of IMCI would contribute to strengthening health system supports; (4) Families would respond to improved quality of care in government health facilities, leading to increases in utilization and reductions in child mortality; and (5) All three components of the IMCI strategy could be implemented in a coordinated fashion at country level within a time frame of 3 to 5 years. In our conclusions we
Methods

Design

The MCE-IMCI consisted of a series of independent studies with compatible designs, each tailored to the stage and characteristics of IMCI implementation in the participating country (Bryce et al. 2004). The set of site-specific studies included prospective, retrospective and mixed designs. They reflected a continuum from efficacy to effectiveness, with variable degrees of influence from the evaluation team on programme implementation. Each study addressed the need to document the plausibility of an effect of IMCI on intermediate steps defined in the impact model. All studies measured an identical set of indicators and, with few exceptions, used identical data collection tools. Observation-based surveys were used to assess the quality of child health care provided in health facilities. Cost data were collected at the household, health facility, district and national levels. Household surveys assessed preventive practices and family responses to illness. All tools were adapted to respond to local characteristics and questions, and in some sites the variables necessary to assess equity were added.

Data sources

The MCE-IMCI includes three different types of studies, each of which provides important findings relative to the impact model:

1. **The 12-country assessment of IMCI implementation.**

   The country selection process for the MCE-IMCI included visits by teams of MCE-IMCI Advisors and WHO staff to countries selected by WHO as representing the best examples of IMCI implementation at that time. All countries in each of the six WHO regions were evaluated against a set of criteria that included the probability that the government would be successful in implementing all three components of the IMCI strategy over the subsequent 5 years. Further information on eligibility criteria are presented elsewhere (Bryce et al. 2004). Based on this review, in each region one or two countries judged most likely to meet the criteria were selected for assessment visits. The assessment protocol included in-depth reviews of country-level plans and progress in child health activities, including but not limited to IMCI. More than one assessment visit was made to several countries in which small studies were commissioned to evaluate the potential for successful IMCI implementation. Although the countries visited had been implementing IMCI for varying periods of time, the search was restricted to those likely to implement IMCI fully, in large geographical areas, within the 2 years after the...
assessment visit, allowing an impact evaluation period of 2 to 3 years within the time frame of the MCE-IMCI. Bangladesh was included as a site even though IMCI implementation had not yet begun, to serve as an efficacy study in which the investigators could collaborate with the Government in implementing the strategy under relatively ideal conditions. Findings from the 12-country assessment provide important information on the validity of those parts of the IMCI impact model related to planning and implementing activities across the three model components (WHO 1999b); some of their implications have been reviewed and discussed elsewhere (Victora et al., in press).

(2) In-depth studies in five sites. Based on the findings of the 12 country assessments described above, Bangladesh, Brazil, Peru, Tanzania and Uganda were selected as in-depth study sites. In Peru, IMCI had already been taken to scale and implemented nationwide, so the evaluation used a fully retrospective design and relied heavily on routine data sources. IMCI implementation was in the expansion phase in Brazil, Tanzania and Uganda, and each design represented a mixture of retrospective and prospective elements. In Bangladesh, as explained above, a fully prospective design was possible because IMCI implementation had not yet begun at national level. In both Bangladesh and Tanzania, MCE-IMCI investigators are participating actively in the Government’s plans for IMCI implementation. Table 1 presents a summary of characteristics and MCE-IMCI data collection activities in the five in-depth sites. Full descriptions of the methods and results for each study site are available at [http://www.who.int/imci-mce/].

(3) Cross-site analyses. The use of standard indicators and analysis plans permitted comparisons across the five MCE-IMCI study sites. Topics addressed to date include the effect of IMCI in improving care quality in first-level health facilities (Gouws et al. 2004), health system barriers to scaling-up (Victora et al. 2004), and the importance of context-specific delivery mechanisms (Bryce et al. 2003), as well as methodological issues (Bryce et al. 2004; Bryce and Victora 2005; Gouws et al. 2005).

In addition, other documentation and research efforts related to IMCI were reviewed carefully and the findings were taken into account in interpreting MCE-IMCI results.

**Analytic approaches**

The analytic approach used in the MCE-IMCI varied among countries. As shown in Table 1, all evaluations entailed a comparison, either between areas with and without IMCI (Bangladesh, Brazil and Tanzania) or among areas with variable degrees of implementation (Peru and Uganda). Details of the analytical approaches are available in the country-specific publications from Bangladesh (Arifeen et al. 2005), Brazil (Amaral et al. 367).
2004), Peru (Huicho et al. 2005), Tanzania (Armstrong Schellenberg et al. 2004a) and Uganda (Pariyo et al. 2005).

**Results**

**Expectation 1: The generic IMCI guidelines could and should be adapted and implemented in developing countries where infant mortality is higher than 40 per 1000 live births**

Although the original target for the IMCI case management guidelines was countries with infant mortality rates of at least 40 per 1000 (WHO 1998a), other countries or specific geographic areas within countries found the concept of integration attractive and moved to adopt and adapt them as well. For example, the Pan American Health Organization ‘...urges all countries to incorporate IMCI as a basic standard for child care’ (PAHO, undated). There was an expectation in the early years of IMCI introduction that the generic guidelines could and would be adapted by any country or area to reflect their specific epidemiological profile and health system characteristics. WHO therefore worked in the late 1990s to develop guidelines for the country adaptation process, including evidence for intervention choices, models for how to incorporate additional diseases and conditions into the training materials, and how to conduct local studies to identify terminology and local foods (WHO 1998b). Cadres of ‘IMCI adaptation consultants’ were trained at regional and global levels.

The resource-intensive efforts at country level required to adapt the generic IMCI guidelines were necessary because the specific pneumonia-diarrhoea-malaria profile underlying the generic IMCI algorithm represents countries that accounted for only about 35% of under-five deaths in 2000 (Black et al. 2003). The remaining 65% of deaths occurred in epidemiological contexts without endemic malaria, dominated by neonatal disorders or in a few countries with generalized epidemics of HIV/AIDS. The widespread uptake of the IMCI concept resulted in overextension of the guidelines to settings with disease profiles that varied widely from those for which they were developed.

The IMCI strategy as defined in 1996 applied only to children from the ages of 1 week to 5 years (Gove 1997), and did not include interventions addressing deaths in the early neonatal period. The cause structure of infant deaths was not well understood at that time, and few interventions had been fully developed and evaluated for efficacy.

The eventual expectation that a set of generic algorithms based on the global distribution of causes of death, combined with support for adaptation at country level, would be an efficient way to improve case management in all countries proved over-ambitious. With benefit of hindsight, greater technical efficiency might have been gained if lower mortality countries had been encouraged to develop, or wait for, epidemiologically driven algorithms more consistent with their cause-of-death profiles for children under 5 years of age, and the incorporation of interventions designed to reduce deaths from causes in the neonatal period.

Another part of the expectation was that IMCI could and should be implemented fully regardless of the strength of the health service system. Again this was an implicit expectation, but was supported by the fact that virtually every developing country was approached by WHO to introduce IMCI. IMCI implementation guidelines suggested that countries with weak health systems should begin slowly with IMCI implementation, and build towards stronger health system strength and integrated programmes simultaneously and synergistically (Lambrechts et al. 1999; WHO 1999b).

**Expectation 2: IMCI case management training would lead to improved quality of care at first-level health facilities**

One part of this assumption, that IMCI case management training would improve health worker performance and thus contribute to improved care quality, has been repeatedly borne out through MCE-IMCI findings (Amaral et al. 2004; Armstrong Schellenberg et al. 2004b; El Arifeen et al. 2004; Gouws et al. 2004). In all settings where case management training was implemented at minimum standards of quality, and where sufficient coverage of trained workers was able to be maintained at health facility level, the quality of care improved. Ill children managed by health workers trained in IMCI receive a more thorough assessment than children cared for by workers without IMCI training, and are more likely to receive correct treatment. Caretakers are more likely to receive key messages about how to continue care at home and when to return to the facility.

**Expectation 3: The introduction and implementation of IMCI would contribute to strengthening health system supports**

Early experiences with IMCI implementation suggested that the inter-programme working groups at national level that were recommended as a mechanism to plan for IMCI, and specific planning steps such as the review and updating of child health policies and essential drug lists, would lead to activities designed to improve health system supports for child health activities (WHO 1999b). In most countries this assumption, at this level, was borne out. The introduction of IMCI led to the rationalization of child health policies and the updating of essential drug lists in most countries in Africa, for example (Lambrechts et al. 1999; WHO 2000).

In three of the 12 countries assessed, IMCI benefited from activities designed to strengthen the health system. In Tanzania, the Tanzania Essential Health Intervention Project (TEHIP) introduced basic management tools at district level (De Savigny et al. 2004) which permitted an effective use of decentralized health resources and resulted in the adoption of IMCI. Other districts with the same resources but without the TEHIP tools did not adopt...
Strategies for promoting equity: experience with community financing in three African countries

Lucy Gilson,* Denny Kalyalya, Felix Kuchler, Sally Lake, Hezron Oranga, Marius Ouendo

*Health Economics and Financing Programme, London School of Hygiene and Tropical Medicine, London, UK
bDepartment of Economics, University of Zambia, Lusaka, Zambia
cSwiss Tropical Institute, Basel, Switzerland
dAfrican Medical and Research Foundation, Nairobi, Kenya
eInstitut Regionale de Santé Publique, Cotonou, Benin

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Abstract

Although the need for a pro-poor health reform agenda in low and middle income countries is increasingly clear, implementing such policy change is always difficult. This paper seeks to contribute to thinking about how to take forward such an agenda by reflection on the community financing activities of the UNICEF/WHO Bamako Initiative. It presents findings from a three-country study, undertaken in Benin, Kenya and Zambia in 1994/95, which was initiated in order to better understand the nature of the equity impact of community financing activities as well as the factors underlying this impact. The sustained relative affordability gains achieved in Benin emphasise the importance of ensuring that financing change is used as a policy lever for strengthening health service management in support of quality of care improvements. All countries, however, failed in protecting the most poor from the burden of payment, benefiting this group preferentially and ensuring that their views were heard in decision-making. Tackling these problems requires, amongst other things, an appropriate balance between central and local-level decision-making as well as the creation of local decision-making structures which have representation from civil society.

*Corresponding author. Present address: Centre for Health Policy, PO Box 1038, Johannesburg 2000, South Africa. Fax: +27-11-4899900.
E-mail address: lucyg@mail.saimr.wits.ac.za (L. Gilson).

This paper is in memory of one of the co-authors, Hezron Oranga.
groups that can voice the needs of the most poor. Leadership, strategy and tactics are also always important in securing any kind of equity gain—such as establishing equity goals to drive implementation. In the experiences examined, the dominance of the goal of financial sustainability contributed to their equity failures. Further research is required to understand what equity goals communities themselves would prefer to guide financing policy. © 2001 Elsevier Science Ireland Ltd. All rights reserved.

Keywords: User fees; Community financing; Affordability; Participation; Equity; Policy analysis; Implementation; Evaluation; Benin; Kenya; Zambia; Africa

1. Introduction

The need for a pro-poor health reform agenda in low and middle income countries has become increasingly evident in the face of inequities in access and payment for care [1] and disrespectful treatment of patients [2]. The World Health Organisation (WHO) has, therefore, combined fairness in financial contributions and responsiveness to the legitimate expectations of the population with improving the level and distribution of health as the criteria it is promoting for assessing health system performance [3]. Implementing pro-poor health reform is, however, always difficult as it has to confront the challenges associated with any politically controversial policy change [4–6].

This paper seeks to contribute to thinking about pro-poor reform by reflection on an earlier phase of health policy change, the UNICEF/WHO Bamako Initiative (BI). Building on previous experiences of community financing, local-level co-operative action associated with material or financial support for health care activities [7], the BI sought to accelerate and strengthen the implementation of primary health care, with the goal of achieving universal accessibility to these services. Its three main strategies were: decentralised decision-making including the involvement of community members in managing primary health care activities; user-financing of health services under community control; and the provision of essential drugs within the framework of a national drugs policy [8,9]. From its inception the BI was caught up in a wider debate about the potential equity impact of any form of user financing, given its potential to undermine the access to health care of lower socio-economic groups [10–14].

The investigation reported here was initiated in the mid-1990s to add to the available empirical evidence about the equity impacts of community financing and BI activities. They investigated both the perceived and demonstrated impacts on equity of such activities, as well as the mechanisms and processes through which these impacts were obtained. The studies’ focus on understanding how and why any perceived and demonstrated changes in equity came about, or what obstacles there were to securing such impact, is unusual in the health care financing literature. However, such investigation is important both in better understanding the nature of the equity impacts and in generating policy-relevant findings. Experience suggests that understanding the factors influencing the pattern and nature of public policy change is essential in determining how to better achieve policy goals in the future.
Policy-makers and managers seeking to learn lessons from existing experiences are, therefore ‘...demanding information on what is being done elsewhere, what works, what does not work, why, whether it can be imported, adapted, and how’ ([21] p. 18).

The study was undertaken in Benin, Zambia and Kenya in 1995–96 [22–25]. The Benin BI programme adopted the ‘classical’ BI approach [26] as its main health reform strategy, seeking to improve the quality of care available at existing primary care facilities, staffed by trained primary care health workers, and to develop the financial sustainability of services offered within them. The package of interventions included the introduction of charges to fund improved drug supplies and support the provision of immunisation services, the formation of local committees, combining community representatives and health staff, to participate in decision-making about drug control, revenue collection and revenue use and clinical training and enhanced supervision. The Kenyan BI programme, in contrast, was implemented in parallel to other changes within the health system, and sought rather to extend primary care coverage beyond the existing facility network by establishing new community pharmacies in areas otherwise not served by government health facilities. The pharmacies were staffed by community members who received a short period of basic training to allow them to offer simple curative and preventive care. They were also associated with a wider network of community health workers (CHWs) based in the villages served by the pharmacy who had health education and preventive care roles. The pharmacies stocked and sold both a limited range of drugs and bed nets, for use in protecting against malaria transmission, and were managed by community committees established with the support of the local leaders. Finally, the pharmacies were also intended to be the focus for the wider community development action, particularly income generating activities, needed to combat ill health and poverty. The very different experience of the third country, Zambia, involved, in 1994/5, an almost exclusive focus on decentralisation to district management teams and boards as the main reform strategy for improving the efficiency and equity of the health care system. The introduction of user fees in the early 1990s was, therefore, only of secondary importance in its overall reform programme. Zambia was, nonetheless, included in this study because its different experiences were expected to provide interesting comparisons with the other countries’ activities.

The full evaluation of the equity impacts of these community financing activities is presented in a sister paper [27]. It was rooted in consideration of three equity principles: payment on the basis of ability to pay; equal opportunity of use for equal need; and effective representation of all community interests in decision-making [22,28]. Whilst the first two principles are commonly associated with distributive justice concerns, that is the distribution of the outcomes of decision-making, the third reflects a concern for procedural justice—the respectful treatment of all groups in decision-making [29–31]. The equity successes of the Benin and Kenyan BI programmes resulted from the relative affordability gains associated with reducing the cost of accessing care by, respectively, improving existing services and bringing new services closer to people’s homes. In Kenya, however, these gains were
undermined by two factors. First, the limited range of services provided through the BI programme meant that people still had to access more distant services for many health problems. And, second, the provision of even this basic set of services was not sustained over time (as evidenced by the drug supply problems experienced in pharmacies towards the end of the study period). Yet in these relative affordability gains went hand in hand with absolute affordability problems, as the most poor received little protection from, and struggled to cope with, the burden of fee payment. Absolute affordability problems were, moreover, evident in both countries as neither established effective exemption mechanisms and so the poorest groups were unfairly burdened with paying for care. These problems were seen most clearly in Zambia where the introduction of user fees without concurrent quality improvements or effective exemption practices led to declining utilisation levels, as large proportions of the population experienced reduced access to health care (although these levels may have stabilised over time [32]). Finally, the voice and needs of the poorest within communities were largely ignored within decision-making practices in each country, a failing in terms of the third equity principle used in the study.

This paper seeks specifically to identify the factors that explain this pattern of equity impacts within and across countries, and to draw policy-relevant conclusions from this analysis. Section 2, first, describes the framework used in the analysis. Attention is then given to the three key sets of factors identified as shaping the country experiences: the leadership given to policy development and implementation (Section 3); the contribution of policy design in sustaining relative affordability gains (Section 4); and the interacting problems of policy design and process that failed the poorest within communities (Section 5). Finally, policy relevant conclusions are outlined (Section 6).

2. The analytical framework

Cross-country analysis of experience in developing and implementing health policies is recognised as important in informing broad questions of policy direction as well as implementation strategies [21,33,34]. The analytical framework used both within each country study and in reflecting on the three different experiences is summarised in Fig. 1.

In stage 1 the impact of the community financing schemes on equity was assessed against the study’s three guiding principles of equity using available utilisation data, investigations of the experiences of different population groups, especially the poorest, in accessing care and in decision-making, and assessment of the design of the schemes of focus (details presented in [27]).

In stage 2 (the focus of this paper) the factors influencing the equity impacts of the community financing activities in each country, and across countries, was investigated by combining a grounded approach to data analysis with the application of a broad lens through which to filter experience. This lens built on the policy analysis approach of Walt and Gilson [20] and highlighted four broad groups of factors as having potential influence over impacts:
1. contextual factors: the socio-economic context of implementation, the previous condition and financing patterns of the health system, socio-cultural traditions and practices of decision-making;

2. the design of each scheme: its objectives, the nature and level of fees, practices regarding the retention and use of revenue, the existence and nature of an exemption scheme, the structures and practices of community involvement in decision-making;

Fig. 1. Analytical framework of the study.
3. the particular processes used in initiating and implementing the schemes: the speed and manner of implementation, and the relative inputs of technicians, service providers and community members in design and implementation;

4. the actors affecting decision-making at all levels of the system (groups within communities, community leaders, service providers, health managers and external donors): their interests, concerns and roles in the activities.

The methods used to gather the data used in this analysis are outlined in Table 1 (see also [22,27]). Document reviews and semi-structured interviews with key informants (policy-makers, programme managers, donor agency representatives) in each country allowed initial analysis of the policy environment and aspects of the process of policy development and implementation. More detailed data on implementation practices were drawn from the two rounds of community inquiry conducted within study sites, that is the commune, within which the primary care facility is located, in Benin; villages served by a BI pharmacy/CHW network in Kenya and districts in Zambia. The first round of these inquiries involved a rapid appraisal of purposively selected sites, in which information about the history and performance of the site was gathered by record review and semi-structured interviews with health workers/managers and a small number of community representatives. In the second round of site visits a wider range of structured interview and qualitative data collection approaches were used in a purposively selected sub-set of the initial sample of sites (see Table 1). Community respondents’ (including the poorest in Benin and Kenya) views about their experiences of the services and decision-making processes were identified.

As only a limited number of sites were investigated in each country it is clearly important to be careful in generalising from the study findings. However, investigating the complexity of implementation experience is at least equally as important in informing future policy development as identifying common patterns across a large number of sites. An understanding of how and why equity has been promoted or undermined can, moreover, be better generated by small-scale, intensive case study evaluations than by large-scale, extensive assessments [35]. Qualitative methods are particularly relevant within such an approach: ‘Quantitative methods can identify ‘how’ individuals behave in certain circumstances, while qualitative methods… are better equipped to answer the diagnostic question of ‘why’’ ([36], p. 445).

3. The importance of leadership in effective policy design and implementation

The overall success of the Benin BI activities, evident in the restoration of services in previously ineffective rural facilities, contrasted with the poorly sustained BI pharmacies in Kenya and the equity losses consequent on reduced utilisation in Zambia. What explains these different experiences?

The first explanation lies in the three countries’ differing processes of policy development and implementation. Although actors played critical roles in each case, in Benin they demonstrated an ability to shape and mould the interactions between themselves and the other three sets of factors influencing policy change.
<table>
<thead>
<tr>
<th>Method</th>
<th>Benin</th>
<th>Kenya</th>
<th>Zambia</th>
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<tr>
<td>Policy review</td>
<td>Document reviews and key informant interviews (in Zambia, key members of the research team had also been involved in financing debates)</td>
<td>Two districts purposively selected because among first to develop BI schemes (so longer experience) and areas of most poor health status; 12 sites purposively selected: six from each district located in different agro-ecological potential zones (reflective of socio-economic status), ten government-sponsored sites of different ages (five from each district) and two NGO sites (one from each district); conducted three focus group discussions with village/pharmacy committee, CHWs and TBAs (traditional birth attendants), using interview guide; semi-structured interviews with chairman, treasurer and pharmacist in each site; collected available health service statistics and revenue data; site visit lasted 1–2 days</td>
<td>Eight districts purposively selected, each from a different province (of which there are nine); districts included fairly even balance of rural and urban areas, areas of different socio-economic status; in one district services run by mission; in six districts, visits included collection of available data on utilisation patterns, and semi-structured interviews with district managers, local government managers and health care providers; for remaining two districts, data on utilisation and staff perceptions collected from parallel study; in each district looked specifically at experiences of hospital located in it and sample of two to four health centres or clinics; 34 facilities of focus: ten hospitals (all levels, three church run); nine urban clinics (eight council run); 14 rural health centres (two mission run); district visits lasted 2 days</td>
</tr>
<tr>
<td>Rapid appraisal</td>
<td>One commune randomly selected from each of 18 purposively selected sous-prefectures, to provide a sample representative of each of the country’s six departments and to cover all of the ‘partner’ institutions involved in supporting the primary care network (international bilateral &amp; multilateral organisations, and NGOs); semi-structured interviews with four purposively sampled health professionals and six randomly selected members of the community per site commune visit lasted 2–3 days</td>
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Table 1 (Continued)

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<th>Benin</th>
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<tr>
<td>Detailed case studies</td>
<td>Seven sites purposively selected from initial 18, five ‘typical’ (i.e. said they were implementing national BI principles) and two atypical (i.e. said they were not implementing national BI principles), on grounds of ease of access to information, quality of information collected, focus on needs of poor; self-administered questionnaires completed by three purposively selected health workers; conducted interviews with ten poor households, 20 randomly selected service users, and undertook four focus group discussions (members of the commune committee(^d), women, young people and village notables)</td>
<td>Seven sites purposively selected from initial 12, including sites from both districts and the two NGO sites, on grounds of level of function and ease of access to information; two household surveys across all sites: (a) random sample of 30 households per site (210 in total) (b) 87 ‘poorest’ households; Participatory rapid appraisal techniques applied including wealth ranking, social mapping, transects in community where pharmacy located in four sites; first round of focus group discussions with community representatives in all sites and second round in government sites only with village health committees(^d); collection of additional health service statistics and other data</td>
<td>Four sites purposively selected from initial eight districts; semi-structured interviews and focus group discussions with health service users and other community members</td>
</tr>
</tbody>
</table>

\(^{a}\) From a total of 67 rural sous-prefectures (districts).  
\(^{b}\) NGO, non-governmental organisation.  
\(^{c}\) From a total of 52 in the two districts of focus; there were 237 sites across the country in 1994.  
\(^{d}\) The Comite de Gestion de Commune (COGEC).  
\(^{e}\) This round of focus group discussions was specifically undertaken to review site experiences following the withdrawal of UNICEF support for the BI programme.
and, in particular, to create mutually reinforcing interactions in support of, and through, implementation (Fig. 2). In Kenya and Zambia, however, leading actors failed to build such interactions and so either did not or could not take action to offset obstacles and opposition.

3.1. Leadership and vision in Benin

The design of the Benin BI programme was rooted in a context characterised by poor economic performance and a deteriorating health system. The government budget allocation for health fell by more than half between 1987 and 1990, leaving total government health expenditure per capita at just under US$2 [37]. Rural health centres frequently lacked drugs and other supplies and health staff were poorly motivated. Patients using their services had to purchase drugs from distant private pharmacies and few, if any, preventive or other services were provided to the surrounding population.

The Benin BI programme sought, therefore, to build demonstrable improvements in the quality of curative primary care and in the coverage of immunisation services. It built both on the country’s diverse range of community financing experiences and on a government decision to allow a district management board, composed of representatives of all sectors, to generate funds locally and decide on their use, rather than returning them to the central government. The WHO/UNICEF Bamako Declaration of 1987 then acted as a catalyst for the development of a coherent framework within which to extend a similar financing approach to all government health facilities. The first steps were to establish the legal framework for the activities and to strengthen drug procurement and supply.

Equally important was the early government action to forge ‘alliances’ [38] with international agencies and non-governmental organisations (NGOs) in support of BI activities. The Benin UNICEF country office (BCO) was, for example, a key external partner for the Ministry of Health and supported the first steps in management training for community committee members through its expanded programme of immunisation (EPI). Subsequent support for BI activities was provided through the World Bank’s project for the development of health services
(1990), whilst bilateral donors and NGOs supporting financing activities in different parts of the country funded drugs, equipment, renovation, training, supervision, and the development of tools such as clinical pathways for diagnosis. Although government sought to promote some degree of coherence between these external partners’ activities, it also provided an environment in which they were encouraged to experiment and to feed back new design and management ideas into the BI programme. The relatively gradual growth in the numbers of BI-supported health centres (increasing from 44 in 1988 to 250 in 1992 [39]) also enabled lessons from experience to be fed back into the programme.

In addition, both the programme’s design and the manner of its implementation generated wider support for it. The commitment and enthusiasm of local-level health workers was, for example, partly promoted through the provision of direct benefits (such as a financial incentive for each fully immunised child) as well as through overall service improvements. These improvements in turn promoted community support of the programme, as did their direct involvement in decision-making; and with local-level ownership and enthusiasm came the continued support of government and external donors.

Overall, therefore, a virtuous cycle of policy change was founded on an alliance between a range of actors. They either shared the common vision underlying the scheme design or were persuaded of its relevance through successful implementation. At a technical level, Knippenberg et al. [40] identify three strategies as particularly important to the development of the Benin BI activities: analysis of best practices, applying lessons learnt from earlier national and international experiences; translation of best practices into a coherent set of operational strategies and management systems through experimentation; adaptation of the strategies through a bottom-up approach involving community participation, peer support, networking and regular monitoring. But, finally, the leadership of the Ministry of Health was critical in sustaining the implementation process over time as ‘sustainability depends on the internal capacity to manage the process of change’ ([38] p. 24).

3.2. Actor failure in Kenya

The development of the Kenyan BI programme was, like that of Benin, rooted in the earlier community financing experiments of NGOs whilst the harambee tradition, a form of community financing for local development activities, provided evidence on the potential role of community-based charges [41]. Again as in Benin, Kenya initially extended its BI activities through a fairly gradual increase in numbers of BI-supported pharmacies, to try and ensure that the increase in sites could be adequately supported. Policy guidelines were also developed to support this expansion, and were allowed to evolve as new lessons and approaches were developed. The initial successes of the programme only bred further support for the programme, as parliamentarians saw advantages for their own constituents at an early stage and began pressing for the faster development and spread of the approach. The number of BI pharmacies, thus, rose from one in 1989, to three in 1990, to 84 in 1992 and to 237 (including NGO-supported sites) in 1994.
However, the Kenyan BI programme, unlike its Benin counterpart, was not adequately rooted in the context of its development. The programme sought specifically to extend primary health care coverage to previously under-served areas on the flawed understanding that the most critical factor undermining the effectiveness of the Kenyan primary care network in the late 1980s was poor coverage [42]. Yet by the late 1980s this network suffered as much from quality weaknesses as from poor coverage [41,43], due to the biased allocation of health system resources towards urban areas and growing balance of payment problems [44]. Weaknesses in the drug supply and distribution system thus bedevilled the existing primary care network and, ultimately, the BI pharmacies. At the same time, the programme failed to build on wider international experience with CHW programmes [45] and so suffered similar problems—such as communities’ poor perceptions of the low level of care offered by CHWs, CHW attrition and a failure to provide support to CHWs through the broader health system.

The Kenyan Ministry of Health, like its counterpart in Benin, played an important role in the programme’s initiation. Its delegation attended the 1987 WHO/UNICEF Bamako conference and officials working with the Ministry of Health’s national primary health care unit were subsequently involved in shaping BI activities, including developing training programmes and supervision manuals. However, the Kenyan UNICEF Country Office (KCO), to which a key member of the Ministry of Health Bamako delegation moved shortly after 1987, remained the stronger partner. Together with a few bilateral agencies, the KCO funded all the costs associated with pharmacy-based activities, even including the non-salary costs of the officials working within the national primary health care unit, as well as being the sole distributor of drugs and bed nets to pharmacies. The significant dependence of BI activities on UNICEF support explains why they were severely disrupted by the suspension of this support in 1995/96 during a period of reorganisation within the UNICEF.

It also suggests that, in practice, the UNICEF KCO drove the development of the BI programme. Thus, it was the KCO officials who were primarily responsible for the frequent introduction of new ideas, such as changes to the service package, into the BI programme. It was also the KCO that refused to consider basing drug procurement systems on the existing national Essential Drugs Programme (EDP) and instead sought to establish an alternative distribution approach using NGOs. However, as these innovations were generally based on ‘what might be good to do’ rather than resulting from reflection on experience or the changing context, they were often flawed. The decision to ignore the EDP, for example, partly reflected the economic and management difficulties faced by this programme but supporting NGO distributors was equally problematic and did not survive the withdrawal of UNICEF’s financial support. This failure to establish sustainable drug supplies was a critical weakness of the BI programme.

At the same time, Minister of Health policy-makers were responsible for isolating the BI programme from the wider developments that could have supported it by following the common pattern of establishing parallel management structures based on donor funding directed at specific purposes [46]. Run from the central primary
health care unit as a vertical programme and only weakly tied to the existing health facility network, there were few links between BI pharmacies and nearby primary care facilities. These facilities simply had no funds for, and no interest in, the activity. At a national level the programme was never given government recurrent budget support and was kept separate from the management of the broader cost-sharing programme that developed over the 1990s. As the first level primary care facility remained free, the failure to link up the two systems of charging not only created the potential for perverse incentives over utilisation patterns [47] but also prevented BI activities from being strengthened through the cost-sharing programme.

Ultimately, therefore, its two central actors, the UNICEF KCO and the Ministry of Health undermined the Kenyan BI programme. The design of the programme, its evolution over time and the support it received were simply not adequate to allow effective implementation. The imaginative approaches developed within it remained experiments that were not sustained in the face of changing circumstances.

3.3. The contradictions of implementation strategies in Zambia

The Zambian experience was clearly very different from that of the other two countries because financing reforms took second place to decentralisation, and so were both given less consideration by policy-makers and also subjected to other policy changes. Initiated after the election of the first democratic government in 1991, the decentralisation programme was intended to address the critical weaknesses of the health system by strengthening management and quality.

By 1995, the time of this study, the reforms had primarily focused on the appointment of district health management teams (DHMTs), as well as training and systems development to strengthen their capacity to manage the budgets allocated to them. Despite the importance of community participation in decision-making, less consideration had been given to the appointment and support of district health boards (to be a governance structure working with management teams), area boards (to act as a link between the population and district boards) or neighbourhood health committees (to act as a forum for community-based decision-making, with representation on health facility management committees). Few of these bodies were functioning in the districts visited in this study. Following the guidance of the 1992 National Health Policy and Strategies document [48] fees had been introduced in some facilities, but the extent and level of fees varied considerably between districts as did revenue retention and use practices.

A major review of the nature and consequences of the Zambian reform implementation strategy undertaken in 1996 identified the strong leadership and pragmatism of the reformers as being fundamental to the achievements in district development that had by then been secured [49]. Yet at the same time, it suggested that the incremental nature of the strategy and delays in tackling ‘difficult-to-win’ problems, such as the development of a national drug policy, resulted in a piecemeal package of reforms and generated uncertainty that undermined imple-
mentation (Section 4). In particular it suggested that there had been an ‘apparent ambivalence… to the whole issue of financing, which contrasts sharply with the clarity and sureness of touch which has characterised many other aspects of the reform process’ ([49], pp. 23–24). Comparison of the Benin and Zambia experiences emphasises this point. Whilst an incremental process was adopted in both countries, in Benin this was rooted in a clearly specified policy design as well as implementation and monitoring procedures that allowed experience to be reviewed and fed back into policy development. In contrast, the purpose and design of financing reform in Zambia was unclear and the general lack of monitoring precluded lessons being learnt from the process of reform [49,50]. Tackling such problems requires stronger leadership and vision in the development of financing policy change.

4. Strengthening management through fee introduction: the contribution of policy design to equity gains

The second explanation for the differing equity impacts of the three countries’ BI activities lies in seven key differences in the design of the financing activities investigated in the three countries (Table 2).

1. The Benin BI programme was rooted in an enabling legal and policy framework. New legislation permitted the sale of drugs within health facilities, the retention of revenue by the collecting facilities and decision-making on revenue use by community management committees. The overall policy framework complemented legal change and guided the coherent development of BI activities in different areas of the country—for example, specifying practice concerning fee levels and revenue use (point 2) and the tasks and functions of community decision-making committees (point 6).

Although similar actions were taken in Kenya and Zambia, they did not provide such clear guidance for implementation in either country. A policy framework [51] was only established in Kenya after 5 years of experience, whilst its adaptation over time simply generated uncertainty around key aspects of practice. Not surprisingly there was considerable variation across Kenyan sites in fee-setting practices and levels (point 2), the implementation of income generating activities and the extent of community consultation (Section 5). Zambian fee-related practices also varied between districts (point 2), largely because, as the health managers and providers interviewed in this study indicated, the various circulars and verbal official announcements supposed to guide implementation were commonly perceived as confusing.

2. In Benin fee levels for curative care (in the form of a drug rather than a consultation fee), antenatal care and deliveries were established by national managers and community committees were not allowed to adjust them. The prices were based on the cost of drugs used for complete treatment with a mark-up, varying by 20–300% between treatment types. This mark-up generated sufficient revenue to cross-subsidise immunisation outreach activities (which were free of charge) and curative care for children, and to cover the costs of drug supplies and staff
<table>
<thead>
<tr>
<th>Design element</th>
<th>Benin</th>
<th>Kenya</th>
<th>Zambia</th>
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<tbody>
<tr>
<td>1. Legal and policy framework</td>
<td>A clear framework promoted coherent development across country</td>
<td>No legal framework; guidelines developed late and remained flexible, generating uncertainty</td>
<td>Inadequate legal framework and confusing guidance</td>
</tr>
<tr>
<td>2. Fee design and fee setting</td>
<td>Nationally set fee levels ensured adequate revenue generated to allow expected cross-subsidisation of other activities</td>
<td>Weak national guidelines adapted by VHCs* on basis of broad assessment of local circumstances</td>
<td>No national guidance and so DHMTs* made own decisions on unclear grounds</td>
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<tr>
<td>practices</td>
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<tr>
<td>3. Funding sources supporting</td>
<td>Government and donor support provided to primary care facilities to complement local revenue generation</td>
<td>Total reliance on donor funding despite local revenue generation</td>
<td>Significant reliance on donor funds within health system as a whole, and so at district level</td>
</tr>
<tr>
<td>service provision</td>
<td></td>
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<tr>
<td>4. Strengthening drug availability</td>
<td>Deliberate parallel action taken to improve drug availability</td>
<td>No action to improve drug supply; few drugs available in basic package of care offered in pharmacies</td>
<td>No action to improve drug supply</td>
</tr>
<tr>
<td>5. Strengthening clinical skills</td>
<td>In-service training and supervision deliberately strengthened</td>
<td>Little action</td>
<td>Little action</td>
</tr>
<tr>
<td>6. Supporting local management</td>
<td>Community committees given clear guidelines, specific training and regular supervision</td>
<td>VHC guidelines applied flexibly in practice and key roles undermined</td>
<td>DHMTs trained but given weak guidance on roles</td>
</tr>
<tr>
<td>structures</td>
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<tr>
<td>7. Strengthening information systems</td>
<td>Clinic information system strengthened and used in monitoring activities</td>
<td>Steps to develop community-based information system weak and not sustained</td>
<td>Focus only on district financial information system</td>
</tr>
</tbody>
</table>

*a VHC, village health committee.

*b DHMT, district health management team.
incentives. In practice, the revenue generated through community contributions covered, on average, nearly 30% of total recurrent costs of the primary care facility [52].

Fee design and fee-setting practice were quite different in Kenya and Zambia. The rule of thumb established by central managers to guide drug and bed net fee levels in Kenya (two to three times the purchase price) was not based on careful analysis of revenue needs, and village health committees (VHCs) were anyway allowed to adapt national guidelines on the basis of local circumstances. Price levels varied, on average, by 400% across drug items between the BI sites assessed. The lack of a guiding policy framework in Zambia was similarly reflected in the considerable variability in health centre price levels between districts: rising from 200–300% for outpatient fees between rural health centres to 400–500% in outpatient fees between urban health centres. The revenues generated were barely adequate to re-supply drugs and nets in Kenya and made negligible contributions to total operating costs in Zambia.

3. Within the Benin BI programme’s funding package government and donor support complemented the revenue generated by fees [52]. Government contributions, representing about one half of total facility recurrent costs, fully covered the costs of salaries and partially covered the costs of supervision, whilst donor contributions, representing less than one-quarter of total facility recurrent costs, supported the cost of transport, training, cold chain requirements and building renovation and maintenance. At the same time, some steps had been taken by the mid-1990s to reduce reliance on donor funding. For example, external funding for fuel for immunisation outreach services was being gradually withdrawn as health facilities began to cover these costs fully from their own revenue surpluses [40].

In contrast, the Kenyan BI programme’s almost total reliance on external funding led to the severe disruption of its activities when the UNICEF KCO withdrew its support in 1995/96. Whilst the Zambian health system’s reliance on donor funding [53] made it similarly vulnerable to changing donor priorities, donors were broadly in support of the reform programme at the time of this study.

4. The Benin BI programme’s efforts to tackle low quality within primary care facilities was supported by improving drug availability through parallel action to promote essential drug lists and use international tendering procedures.

In direct contrast, no steps had been taken by the time of this study to develop an effective drug procurement and supply system in support of BI pharmacies in Kenya or the wider health system in Zambia. The weaknesses of the Zambian system meant that fees were introduced without any concomitant improvement in drug availability at health facilities. As a drug, rather than consultation, fee was levied, patients complained that they effectively had to pay twice, once for consultation in the public facility and a second time in purchasing drugs from other sources [54]. Perhaps not surprisingly, the initial evidence suggested that utilisation levels fell considerably after fees were introduced—for example, by 40–100% in selected clinics in Lusaka Urban District [22,55]. In Kenya, focus group discussions with VHCs held after UNICEF had stopped supplying drugs and nets to pharmacies indicated that pharmacies were then experiencing major problems in drug
availability and had turned to local, private sources, despite concerns about the quality of their supplies. In practice, therefore, the access gains achieved by locating pharmacies in previously under-served areas were undermined by the failure to develop a secure, local, drug procurement system. In addition, as the benefit package offered through the programme included only first aid care, and little access to referral services, community members still had to use other sources of care for some, particularly more serious, conditions, with the consequent cost implications. In the household surveys undertaken within this study, the limited range of drugs was the most frequently identified community criticism of the BI activities.

5. Within the Benin BI programme, various actions were taken to strengthen the clinical skills of primary care staff. They were given in-service training to promote rational prescribing of drugs, the use of clinical pathways (such as flowcharts) in diagnosis and risk screening in the provision of care to pregnant women. Efforts were made to strengthen supervision practices, including the development of a tool to help facility staff and supervisors monitor coverage and identify and address the obstacles to improved coverage. Fee revenue was also partly channelled into supporting regular supervision, through a flat-rate levy of 2500CFA on all health centres paid to the local Direction Departmentale de la Santé (i.e. regional health office). As a result, nearly all (99%) of the health staff interviewed in this study indicated that their health centre received financial, material and technical support from higher levels (although another study identified weaknesses in supervision practices [40]).

In contrast, clinical skills’ development was weak in both Kenya and Zambia. Indeed, at the time of this study, the Zambian health reforms explicitly focussed on the development of management rather than clinical skills. In Kenya, data collected from household surveys in case study sites indicated that the limited skills of CHWs was the second most frequently identified community criticism of the BI pharmacies. Subsequent in-service training rarely followed the short-period of initial training given to CHWs, and little supervision was provided. Pharmacy staff at only one out of the 12 sites visited in this study indicated that they had received support from the neighbouring health facility whilst national supervision was, again, ultimately undermined by the lack of secure funding for BI activities.

6. Local management structures were developed in Benin by clearly defining the tasks and functions of community committees, and providing relevant training for their members. The Comité de Gestion de Commune (COGEC) was given responsibility for managing drugs (receiving drugs, stock control, being informed on drug orders made by staff), managing funds (banking money and keeping one of the two keys to the facility safe), employing and paying local workers such as drug dispensers, and deciding on how to use money. Clear guidelines, training and supervision also promoted common practices across communes: thus, 74% of the health workers interviewed in this study indicated that revenue use in their facility followed policy guidance.

Although guidelines were established to guide the establishment and functioning of VHCs in Kenya [51], the establishment, size, composition and activities of the committees varied considerably between sites. Their revenue management function
was anyway undermined by UNICEF’s continued provision of financial support and drug and bed net supply. Rather than being used to support BI activities the revenue generated by fees largely remained in bank accounts, earning interest but losing value, and sometimes being misused. In Zambia although community committees had not been established at the time of this study, district management teams had been strengthened using an on-the-job training approach, rooted in plan development and performance monitoring. However, as already noted, the guidance district managers received on fee-related issues was often confusing. At the time of this study no attempts had been made to develop the management skills of health facility staff or community committees.

7. The management information system was strengthened in Benin by linking it to local decision-making concerning health care provision, resource management, supervision of quality of care and monitoring coverage, drug use and cost recovery [38]. Steps were taken to involve both health staff and community members in simplifying the system, so increasing their understanding of the information available. This also promoted transparency at a local level.

Similar efforts to strengthen the Zambian district financial information system, through a process involving district management staff, were not, however, extended to other relevant management information or to the health facility and community level. A local-level information system developed to record basic community statistics (such as births, deaths, pit latrines constructed etc.) within the Kenyan BI sites, the ‘chalk and board’ system, was simply not sustained after the withdrawal of UNICEF support.

Overall, this cross-country comparison of design issues emphasises that the Benin BI’s promotion of relative affordability gains was not simply a function of levying fees. Rather, as Knippenberg et al. ([40], p. 42) comment, ‘while the cost sharing mechanism initially seemed revolutionary at the national and international levels, the linkage with strengthened clinic management, staff quality and morale, drug supply and relations with the community as a whole were visibly more important factors in revitalising’ the health centres. The management change associated with fee introduction was, ultimately, the key to improving the service quality and coverage of primary care facilities in Benin, whilst management weaknesses undermined the Kenyan and Zambian financing activities.

5. Failing the poorest: the interacting problems of policy design and process

Despite its other successes, the Benin BI programme shared a common equity problem with the financing activities examined in Kenya and Zambia: all three failed to protect and benefit preferentially the poorest within communities.

A critical factor underlying this equity problem was the failure to establish the protection of the poorest as a clear goal of the activities. The Benin BI programme sought, rather, to improve quality of care, and the Kenyan programme, to support both improved access to drugs at community level and health-promoting community development actions. Whilst the Zambian reforms sought broadly to improve
equitable access to cost-effective health care, fees were introduced with the specific goals of creating community ownership of the health system and raising revenue. Given these goals, the subsequent design and implementation of the relevant financing activities in all countries simply failed to recognise and tackle the specific needs of the poorest. For example, neither Benin nor Kenya took action to offset differences in revenue generating capacities between communities of 200% annually (Benin) and 900% monthly (Kenya). Although not fully investigated, there were signs that more wealthy communities generated higher levels of revenue, and benefited from greater service improvements, than less wealthy communities [27,38]. Zambian action to implement a resource re-allocation mechanism between districts may, however, provide lessons for other countries on this issue [55].

The three design problems promoting intra-community inequities are highlighted in Table 3, together with the key factors explaining them. However, for each issue and in each country there were important features of context that influenced practice concerning the poorest, and that cannot easily be off-set by actions within the health sector alone. The health needs of the poorest and their ability to contribute to local decision-making clearly require much broader action if the socio-economic and socio-political roots of these problems are to be effectively addressed.

5.1. Ignoring financial barriers

A critical gap in the design of all the schemes of focus was the lack of an effective means to protect the poorest from the burden of payment. Zambia was the only country in which guidance on who to exempt was established by the central Ministry of Health. In Benin and Kenya the decision of whether or not to protect the poorest groups from payment, and how, was left to the local-level management committee on the grounds that it could best make case-by-case exemption judgements. Yet in all countries the weak guidance on who to exempt and how to provide for the poorest groups’ needs was commonly identified by interviewees in these studies as a reason why exemptions or reduced prices were usually not offered.

Exemption practice in all countries was, however, primarily undermined by the conflict between financial sustainability and protection of the poor. Even in Zambia, where revenue generation was not an explicit goal of the fee system, providers interviewed in this study complained that if the exemptions of policy were applied fully it would prevent revenue generation. In Benin the need to recover costs in order to maintain the quality of services was the most important reason given by service users for why protection was not offered to the poorest, and was also one of the reasons given by health staff. ‘More and more, social assistance and the desire to help the sick who are targeted by the health services is undermined by profit’ (focus group discussion, young people). The pre-eminence of financial sustainability was almost inevitable given the programme’s insistence on generating revenue to promote service improvements. The training and supervision offered to primary care workers and community members stressed their responsibility to raise
Table 3
Explaining intra-community equity losses across countries

<table>
<thead>
<tr>
<th>Equity losses</th>
<th>Explanatory factors</th>
<th>Design/actors</th>
<th>Process/actors</th>
</tr>
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<tbody>
<tr>
<td>No protection for poorest</td>
<td>Benefitting majority poor is the established and accepted equity goal; communities may not wish to implement protection for poorest (prices affordable, danger of leakage to non-poor); weak management capacity</td>
<td>Primary goal of financial sustainability; unclear or no guidance on who to exempt; vague or weak exemption mechanism; no other mechanism to tackle financial barriers; poor have no voice (see below)</td>
<td>Top-down and inconsistent implementation process undermines authority of local actors to offer protection; limited training and supervision to develop relevant management capacity</td>
</tr>
<tr>
<td>Limited benefit strategies</td>
<td>Community demand/preference for curative care; low cash incomes limits revenue generation possible; weak management capacity</td>
<td>Limited health promotion benefit packages; curative care dominance; limited curative care package (Kenya); target group primarily defined in disease terms (at risk); limited inter-sectoral collaboration; poor have no voice (see below)</td>
<td>Top-down and inconsistent implementation process undermines authority of local actors to widen benefit package; training and supervision to develop relevant management capacity; limited consultation within community</td>
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<tr>
<td>Not listening to the poorest</td>
<td>Characteristics of poorest; socio-cultural realities of local communities</td>
<td>‘Community participation’ seen as strategy of implementation not objective in its own right; formal guidance that promoted exclusion of poorest; no mechanisms to promote inclusion of poorest</td>
<td>Socio-cultural realities dominate practice of implementation; implementation through local structures promotes exclusion of poorest; top-down implementation undermines local ownership and decision-making by local structures</td>
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revenue and so both groups expressed a concern about the need to avoid making a loss and to ‘balance the books’. ‘We do not see any sense of equity in the decisions taken about the health centre. Perhaps the health workers and the COGEC members have not been sensitised to this issue’ (focus group discussion, village leaders). Similar practices in Kenya may also have influenced decision-making despite external support for the provision of drug and bed net supplies.

Given the dominance of financial sustainability, it is perhaps not surprising that little consideration was generally given to other possible strategies for addressing the financial barriers faced by the poorest. Yet in three Kenyan sites, VHCs had been encouraged by the DHMT to consider imaginative ways of addressing the issue, such as an approved list of those entitled to exemptions and a special bank account to cover the costs of care for the poorest. Some NGOs in Kenya and Benin had also developed broader protection strategies. In one Kenyan site, a community solidarity fund (which was set up and funded separately from the health care fee system) was used to pay for the health care provided to the indigent. And in Benin, the poor were protected through mechanisms such as reduced prices and a pharmacy providing free drugs to the poor.

The failure to develop such innovative protection strategies in most communities may itself reflect the limited authority given to local decision-makers within the BI programmes. In both Benin and Kenya the composition and tasks of community committees were determined within fairly limited parameters by higher levels. In Benin, for example, they were neither allowed to determine price levels nor given much freedom in terms of revenue use. There was, in effect, limited management flexibility to respond to the financial needs of the poor, as highlighted in discussions with COGEC members.

“…the COGEC has regulations to respect, which considerably limit its field of action. Drugs must be disbursed at a small cost, we have no authority to distribute them freely and the stocks must be replaced.”

“…the COGEC is ruled by regulations which deprive it of its autonomy.”

Although Zambian providers were given authority to offer specified exemptions, the guidelines were implemented differentially between districts because of a failure effectively to communicate them either to health staff or the community at large. Indeed, guidance on exemptions was only provided after fees had been introduced and been negatively received by the population. Thus, staff at one rural health centre indicated that no official communication had been received about exempting under fives or the elderly and so ‘being just a rumour [they] did not exempt the two from paying’. Many others complained that policy was changed often and that the changes only came as verbal pronouncements. In 1994 the Deputy Minister of Health had even announced that nothing should be considered official until written notification had been received from the permanent secretary, given the number of verbal pronouncements being made from the central level.
Ultimately, the voice and views of the poorest were often simply not heard or considered in decision-making on price structures and levels. In Benin, for example, price levels were largely thought to be acceptable by the general population. Yet whilst only 1% of the community-level key informants felt that prices should be related to socio-economic status, 62% of those interviewed from the poorest group said they would like to obtain exemptions and 87% said current price structures deterred some people from accessing services.

5.2. Inadequate development of pro-poor benefit strategies

The importance of benefit strategies to equity gains is shown, for example, in the contrast between the relative affordability gains of fees with quality improvements in Benin and in the decline of utilisation rates that appeared to be associated with the introduction of fees without quality improvements in Zambia. The contrasting experiences of Benin and Kenya also suggest that the nature of benefit strategies influence the extent to which the poorest preferentially benefit from health care. The broader health promotion and development strategies pursued in Kenya had the potential to generate equity gains by cross-subsidising the spread of benefits within communities beyond the group of health care users. Although the cross-subsidisation of immunisation services in Benin did generate some similar gains for the health vulnerable groups of mothers and children, the dominant focus on curative care channelled most benefits only to those using these services. Yet financial barriers continued to constrain access to these benefits by at least some of the poorest [38,56].

The potential benefits of the broader Kenyan benefit strategy were, moreover undermined by the limited development of such activities. In practice, only four sites initiated income-generating activities (IGA) and of these, only one site supported activities through an IGA that spread benefits widely within the community (the construction of a road and a school). In other sites the IGAs generated benefits for only a limited group, sometimes as incentives to CHWs. Even relative affordability gains were constrained in Kenya by the limited package of care provided, as it required continued use of more expensive and more distant health providers especially for more serious, and potentially expensive, conditions. These weaknesses of the Kenyan BI programme reflected four main factors:

1. The programme adopted a curative care ‘entry point’ in initiating its activities, with the intention of building broader primary health care activities over time. However, the pharmacies came to be seen by the community almost solely as places that sold drugs and bed nets, perhaps reinforcing a general preference for curative services and undermining the intended role of the BI programme in health promotion.

2. It is always difficult to raise revenue at primary care level: price setting has to balance the potential impact on demand with the generation of funds [12]. In practice, the revenue generated within BI sites was barely adequate to re-supply drugs and bed nets and no site visited in this study had generated enough revenue to give CHWs incentives for providing preventive services, or broader development activities.
3. To offer broader benefit strategies it is necessary that local management committees are trained in a wider range of skills and better supported, than in more narrowly focused approaches. Yet the skills and training needed to support the diverse range of IGAs initiated were simply not available within the BI programme, and would have required inter-sectoral collaboration.

4. Community members expressed strong concern that decision-making around IGAs, in particular, was in the hands of the VHC and/or CHWs rather than the whole community in four out of the ten government-supported BI sites visited in this study.

“We find ourselves at a crossroads now because there is nothing we can ask the VHC about this project because we were not part and parcel of its inception.”

“We cannot comment on the IGAs because even at present none of us knows the number of bags of maize which were brought to be sold.”

IGAs may, therefore, have become simply a way of generating benefits for a small elite rather than promoting health and development activities of benefit to the wider community.

5.3. Not listening to the voice of the poorest

The failure to hear the voice of the poorest reflected a broader problem: there were signs in all three countries that the community at large, let alone the poorest, did not feel involved in decision-making. In some Kenyan BI sites, activities were initiated by a specific group or person (such as pre-selected CHWs or the chief) and this influenced the wider community’s perception of who ‘owned’ the BI pharmacy. Even when elections were undertaken without the overt influence of the local administration, the chief’s real influence would be understood by the community and he, or an assistant chief, might be present at the baraza (chief’s assembly). The very fact that the baraza was seen as a key instrument in initiating BI activities underlined the potential for the chiefs to manipulate the activities to their own ends. In one case, a chief took control of the dairy cattle owned by the BI for ‘safe keeping’ and then declared the animal his, in spite of opposition from community members. In contrast, there were other instances when the district BI co-ordinator (a DHMT member) directly involved himself in local decision-making concerning the appointment of office bearers and price levels. Whilst perhaps undertaken to promote ‘good practice’, this may also have undermined local ownership. Not surprisingly, community members often thought that ‘the project’ belonged to the VHC, the BI co-ordinator, the Minister of Health or UNICEF. Similarly in Zambia, although cost sharing was introduced ostensibly with the aim of promoting partnership, few community members felt they could participate in decision-making or influence practice. One analysis of the Zambian experience expressed concern that decision-making had been taken over by some health staff and so had discouraged the community [49].
As noted, in all three countries key aspects of implementation remained effectively controlled by higher levels and so precluded opportunities to listen to the poorest. All community-based key informants interviewed in Benin, therefore, stated that the health authorities set prices. In Kenya, the revenue generated largely remained stored in bank accounts whilst community bodies awaited instructions on when and how to use them. Only when UNICEF deliveries of bed nets and drugs failed to arrive did communities begin to think they could use the revenue they had collected. In Zambia, although decisions concerning price levels, exemptions and revenue generation were being taken at district level, there were also signs that the district sometimes blocked decision-making by lower levels on these issues. Thus, in six out of eight districts visited in this study, facilities were required to bank fee revenue at the district level—leading to some confusion about how the revenues could be used and who could decide on their use. The lack of clear guidance only exacerbated the issue: guidelines requiring that a proportion of revenue be retained for use by individual facilities were drafted and verbally communicated to district managers, but never signed and given official status.

The policy guidance implemented through these top-down practices sometimes directly excluded the poorest. Thus, in Kenya, VHC members and CHWs had to be literate and the selection of both groups had to occur through the baraza. Yet 78% of the poorest households surveyed in case study sites had not attended a baraza in the previous year, compared to 43% of those surveyed in the initial survey.

“The vulnerable members do not get an opportunity to be a CHW or join a VHC because… that selection is one only for the fittest members in society.”

“The poor do not take part in the decisions regarding exemptions because they do not take part in meetings.”

Clearly, however, the diverse range of personal and material factors that characterised the poorest in all countries [27] are likely themselves to have had a marginalising effect on their role in the community. The extreme poverty from which the poorest suffer inevitably places an enormous burden of survival on them and may simply prevent them from engaging in any voluntary activity. Women may be most excluded from decision-making because of deep-rooted beliefs about the traditional roles of men and women and so, despite policy guidance, the VHC chairperson was a man in all Kenyan BI sites visited.

Perhaps the tendency towards top-down implementation approaches was inevitable in all countries. The problems were defined as technical in nature, the technicians played a dominant role in generating solutions, the traditional decision-making practices of most communities and public sectors were hierarchical and external, international agencies played a strong role in supporting these activities. Certainly, despite stated intentions, an appropriate balance between central level control and local decision-making seems never to have been achieved. Some decisions, such as who to exempt, were left to the community in apparent reflection
of the international view that this was the most effective way of identifying and addressing some community needs. However, this approach ignores the clear pressures to focus on other priorities at the expense of the poorest, as well as the socio-cultural and political realities of communities. In addition, the practice of implementing change in all three countries gave only limited roles to these local decision-making structures and consistently excluded both direct and indirect consideration of the voice of the poorest. Only in sites supported by NGOs, where special mechanisms had been established to address the needs of the poorest and the parent organisation had taken responsibility for providing funding, were these mechanisms implemented effectively. Overall, therefore, the community decision-making bodies created to strengthen accountability by giving a ‘voice’ to the community often did not appear to serve the interests of the poorest.

6. Conclusions and recommendations: meeting the needs of the poor and the poorest

6.1. Strategy is always important

The three-country studies all illustrate the critical importance of leadership and strategy to the effective implementation of policy change. Managing such change requires both political skills, to develop and mobilise support, and technical skills, to inform and guide the reform process [57–59]. The careful design of reforms can aid implementation by reducing the potential for confusion or conflict by stating clear goals, outlining simple technical features and establishing clear implementation steps. Within a clear guiding framework, incremental approaches then allow capacity for implementation to be developed, give implementors the flexibility to learn from experience and enable support for change to be developed.

The continual adaptation of reforms in pursuit of goals is also only possible if there are sound procedures for monitoring and evaluating experience [57,58,60]. For pro-poor policies it is particularly important to monitor the impact of policy on the poorest. Dis-aggregated data are essential for this task. For example, it must be possible to identify and compare the utilisation of different population groups as well as to track changes in utilisation over time. This study has also highlighted the usefulness of looking at various aspects of equity, and the interaction between them, as well as the need to understand why and how change is brought about—not only what change is achieved.

6.2. Sustaining the potential equity gains of community financing schemes

The country experiences reviewed here also suggest that the key factor in sustaining the potential relative affordability gains of community financing activities is to use the introduction of fees as a policy lever for strengthening management. The key, interacting steps required to ensure these gains include:
establishing a clear design that includes local retention of most revenue and cross-subsidisation of a limited range of preventive services;

- developing a legal and policy framework enabling implementation;

- ensuring that parallel action is taken to support implementation-in particular, reforms to improve drug availability and to support decentralised decision-making;

- providing clear and detailed guidance on pricing practice and revenue use;

- providing management and clinical training and supervision for health facility staff, possibly supported by a financial contribution from each facility;

- encouraging health facility staff to monitor local health facility performance;

- involving local community structures in decision-making with appropriate guidance and support;

- generating in-country support for change through incentives and sustained improvements;

- maintaining government financial support for at least the salaries of staff and using donor funds as flexibly as possible to support the overall approach;

- adopting a gradual but progressive implementation process.

6.3. Seeking to meet the needs of the poorest

However, the experience of all three countries highlights the difficulty of establishing effective exemption mechanisms to protect the poorest from payment, especially within systems seeking to promote financial sustainability.

An alternative approach, proposed by respondents in both Benin and Kenya, is to establish a separate ‘community solidarity fund’ which can fund the use of care by the poorest, alleviating the tension between financial sustainability and concern for their needs:

“...To better care for the impoverished and vulnerable, the political authorities must count the indigent. The state must, moreover, give the health centre a special drug supply to care for the impoverished and vulnerable who don’t have support.” (Benin focus group discussion, young people)

A first step would be to develop mechanisms for determining who should be given support. Drawing on the 1992 Zambian experience of drought relief procedures, Booth et al. ([54]; see also [61]) suggest that local, democratically elected committees could be strengthened by NGOs in assessing each household within the catchment area of health centres and determining which should be exempted. The approach has some similarities to that of the Thai low income card scheme which brings local leaders and health workers together to determine on the basis of a nationally-determined income threshold who within a community should be allocated a card entitling them to free care. Over 15 years of implementation experience has shown that such an approach can be implemented relatively effectively [62], de Kadt and Tasca [63], similarly, propose a geographic targeting approach based on
identifying vulnerable groups by living conditions, rather than income, through a process that uses both available technical information, such as health statistics, and the knowledge of the local population. They suggest that health interventions, and inter-sectoral action, should then be directed to these target populations in response to their worse access to care or experience of a particular health problem.

Although there are no easy options in meeting the needs of the poorest, the experiences examined here suggest that the following actions are always important to consider:

- maintaining government and donor support within an overall financial plan for the health sector, so that the full burden of financing, and especially the burden of financing necessary support, is not left to communities;
- the creation of local decision-making structures which try to take into consideration the needs of the poorest by specifically seeking representation from civil society groups such as churches and NGOs, women and others, and by procedures which allow broader views to be heard (e.g. community-wide meetings, specific attempts to hear the needs of the poorest);
- developing broad approaches to targeting which involve local people working within central guidelines, and which are managed and funded separately from the local revenue generation mechanism;
- developing benefit packages broader than curative care to ensure the wide dispersion of benefits within the community (recognising the particular importance of strong local-level administrative capacity);
- a package of training and supervision which strengthens local management practices and emphasises the importance of addressing the needs of the poorest;
- a monitoring approach, perhaps building on a targeting mechanism, which allows changes in the situation of the poorest to be identified and fed back into health service planning and local decision-making;
- an appropriate balance between local and central decision-making.

The last issue is possibly one of the most critical and is also emphasised by wider decentralisation experience [64]. Rather than simply leaving protection of the poorest to communities, governments need to provide financial assistance, guidance and appropriate support to communities in this task and in promoting inter-community equity. By themselves community financing schemes can do little for the poorest, instead much broader action, backed by political support, is required.

6.4. The continuing debate

Ultimately, however, the nature of the equity goal established to guide any health programme’s development will influence the equity gains it actually promotes. Whose views and values should underlie the selection of this goal? Some argue that the concern for the poorest groups is imposed on African cultures by external agents [65]. Carrin, thus, ([66], p. 186) suggests that:

“…equity does not normally seem to be perceived as a priority at the outset of a community financing scheme. One of the reasons is that feelings of interfamily
solidarity may be rather weak so that the population may resist the implementation of certain equity rules in a financing scheme... Greater equity should be kept as a long-run goal. Schemes are invited to monitor equity and to move gradually towards this goal.'

However, during focus group discussions undertaken in these studies community members expressed concern for the poorest as well as the broad community, and recognised the difficulties faced by the poorest in accessing fee-paying care:

“Equity requires equality of rights for all at the health centre with, nonetheless, some priority for the worst sufferers and the children.” (Benin)

“The poor should be chosen as leaders of the project as well so that they can speak on behalf of other poor colleagues about their requirements.” (Kenya)

“Equity in health care means that everyone, whether they are rich or poor and whatever ethnic group they come from should have access to health care when they need it... Equity is not possible because every intervention has its own price and those who have no money dare not even come to the health centre.” (Benin).

Although an inadequate analysis, these community voices may be suggesting that strategies to promote equity must achieve gains for the majority poor and the minority poorest. Further research on understanding how communities perceive equity and how to achieve it would be an important foundation for future policy development.

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References


FAMILY PLANNING POLICIES AND PROGRAMMES IN EIGHT LOW-INCOME COUNTRIES: A COMPARATIVE POLICY ANALYSIS

KELLEY LEE*, LOUISIANA LUSH, GILL WALT and JOHN CLELAND
London School of Hygiene and Tropical Medicine, Health Policy Unit, Keppel Street, London WC1E 7HT, U.K.

Abstract—The extent to which family planning programmes are successful at reducing fertility remains a major debate among population scholars. A comparative policy analysis of four pairs of low-income countries (Bangladesh/Pakistan, Thailand/Philippines, Tunisia/Algeria and Zimbabwe/Zambia) was carried out to understand why some countries develop appropriate and effective programmes, while other countries do not. The study found that the formation of coalitions among policy elites, spread of policy risk, and institutional and financial stability were factors which supported or inhibited the adoption of strong population policies and family planning programmes.

Key words—family planning, population policy, health policy

One of the great debates among population scholars over the past thirty years has been the extent to which state-sponsored family planning (FP) policies and programmes are successful in reducing fertility and, hence, the rate of population growth. It is relatively easy to demonstrate that contraceptive use is higher, and fertility lower, in countries where governments have established active FP programmes, than in countries where this is not the case. However, it is more difficult to show a causal link between the establishment of FP services and any reduction in fertility. There continues to be little consensus among demographers, with convincing scholarship supporting opposing conclusions. On the one hand, Hernandez (1984) and Pritchett (1994) argue that FP programmes succeed in countries where people already wish to limit family size and will thus demand contraceptive services. Governments establish services, in other words, in response to pre-existing demand. On the other hand, Mauldin and Ross (1991) argue that government FP services may actually stimulate demand which leads to subsequent reductions in family size. This is a debate which may never be concluded satisfactorily among demographers given the complexity of establishing causal links. Furthermore, recent developments in international health policy have reduced the level of attention paid to family size as the principal outcome of reproductive health programmes.

Using a different analytical lens, policy analysis, this paper seeks to address an important gap in the population and health policy literature. To the extent that government policies contribute to demographic trends, there is a need to understand better the factors that support or inhibit the adoption of FP policies and programmes. However, limited comparative research has studied in detail the actors and processes involved in policy making on FP, and how this has taken place over time in specific national and international contexts (Finkle, 1972; Warwick, 1982). Contextual factors, in particular, have changed enormously over the past thirty years. During the late 1960s, some countries were beginning to promote FP actively, but many governments in the developing world remained vocally opposed to what was perceived as a western-driven policy agenda. By the mid 1980s, most countries had adopted FP programmes as part of national population policies aimed at limiting population growth and promoting economic development. In the mid to late 1990s, and following the International Conference on Population and Development (ICPD) held in September 1994, there is broad consensus behind the concept of reproductive health. In this context, FP is seen as one of a range of primary health services aimed at meeting the reproductive needs of individuals.

ANALYTICAL FRAMEWORK AND METHODS OF THE STUDY

This paper is drawn from a study (Lee et al., 1995) of four pairs of low-income countries which were selected to minimise differences in economic, social and cultural factors within each pair, but...
maximise differences in the strengths of their FP programmes. The case study countries were: Bangladesh/Pakistan, Thailand/Philippines, Tunisia/Algeria and Zimbabwe/Zambia.

The four pairs of case study countries were chosen for their roughly similar socioeconomic characteristics, yet difference in the strength of their population policies and FP programmes, as measured by the programme effort scores* of Mauldin and Berelson (1978) and Mauldin and Ross (1991). Ideally, countries would have been politically and socioeconomically identical within each pair, enabling any divergence in reproductive outcomes to be attributable to their policies and programmes. In reality, of course, no two countries are wholly alike. In addition, similar countries tend to evolve similar policies (Mauldin and Berelson, 1978; Mauldin and Ross, 1991). The selection process was also limited by available access to policy and demographic data which further restricted the choice of countries (e.g. North Korea and South Korea). Finally, any historical comparison of case studies needed to recognise that policies and programmes change over time, and that differences and similarities were relative to each pair rather than absolute across all countries.

The selected countries are shown in Table 1, with the first country of each pair having stronger population policies and FP programmes than the second. Bangladesh and Pakistan were united as one country until 1971, are both predominantly Islamic, and have similar levels of adult illiteracy (65% in 1990) and infant mortality (around 100 deaths per 1000 births in 1990). The most obvious differences between the two countries are the higher GNP per capita in Pakistan (US$1862 in 1990) than Bangladesh (US$872), even after adjusting for purchasing power parity. Notably, the two countries have pursued very different population policies since the early 1970s, and have experienced significantly divergent fertility outcomes. The earlier decline in fertility in Bangladesh could not have been predicted from the above socioeconomic factors, which would suggest a fertility differential in the opposite direction.

Until 1964 Zimbabwe and Zambia were also one country, Southern and Northern Rhodesia respectively. Both are predominantly Christian countries, with little difference in fertility and infant mortality rates throughout the 1960s and 1970s. There has also been a similar pattern of decline in adult illiteracy (from about 60% in 1963 to 33% in 1990), although GNP per capita increased in Zimbabwe during the 1980s at a faster rate. Despite their rough similarities, fertility rates in Zimbabwe fell more rapidly than in Zambia (23% vs 4% since the 1960s), accompanied by a stronger programme effort score for its FP programmes.

Tunisia and Algeria are neighbouring countries composed predominantly of Arab and Muslim populations. The two countries share historical links with France although Tunisia, like Zambia, had a more peaceful transition to independence. GNP has been roughly similar (US$3000–3500 in 1990) after adjusting for purchasing power parity. Infant mortality has always been slightly lower in Tunisia (declining from 155 to 38 deaths per 1000 live births between 1960–90) than Algeria (declining from 160 to 64), as has the proportion of the adult population that is illiterate (35% compared with 43% in 1990). However, these differences appear far too modest to explain the divergence in programme effort scores and fertility rates over the past thirty years.

Thailand and the Philippines are perhaps less well-matched as comparative case studies, both politically and culturally, despite sharing a regional proximity. Selected indicators of socioeconomic development, however, suggest that the Philippines was actually more favourably placed during the 1960s and 1970s, a period when fertility began to decline more sharply in Thailand. In 1960 the Philippines had a higher GNP per capita, and lower adult illiteracy and infant mortality rates. It is only since the early 1980s that Thailand’s GNP per capita has grown to exceed its neighbour, while adult literacy in both countries is now almost universal.

In summary, the selected pairs of countries show a difference in timing and rate of decline in fertility unexpected from comparing their socioeconomic features. In other words, there is little evidence

* A programme effort score or rating of the strength of family planning programme effort is derived from scoring along thirty items grouped into four components: policies and stage-setting activities, service and service-related activities, record keeping and evaluation, and availability of contraceptive methods. This information was obtained through detailed questionnaires sent to government officials, donor agency personnel, knowledgeable citizens and foreigners. There are two caveats for this ranking. First, the assessments were made by individuals who were familiar with fertility trends and levels of contraceptive use. This could have led to pre-judging programmes favourably or unfavourably depending on whether fertility is declining. Second, the two later measures of strength used a more comprehensive set of inputs which may suggest a lack of comparability with the first measure taken in the early 1970s.

### Table 1. Selected countries and programme effort scores

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<tr>
<td>Bangladesh</td>
<td>10</td>
<td>57</td>
<td>72</td>
</tr>
<tr>
<td>Pakistan</td>
<td>27</td>
<td>40</td>
<td>48</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>NA</td>
<td>27</td>
<td>56</td>
</tr>
<tr>
<td>Zambia</td>
<td>0</td>
<td>16</td>
<td>49</td>
</tr>
<tr>
<td>Thailand</td>
<td>37</td>
<td>61</td>
<td>80</td>
</tr>
<tr>
<td>Philippines</td>
<td>53</td>
<td>56</td>
<td>49</td>
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<tr>
<td>Tunisia</td>
<td>40</td>
<td>59</td>
<td>69</td>
</tr>
<tr>
<td>Algeria</td>
<td>10</td>
<td>25</td>
<td>46</td>
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Source: Mauldin and Berelson (1978) and Ross et al. (1992).
from basic socioeconomic indicators that one country would be more likely to have an earlier or more rapid fertility decline than the other. This led the study to address two main questions:

(a) Why did some countries develop appropriate and effective FP programmes while others did not?

(b) How can this insight contribute to understanding the relationship between FP programmes and fertility decline?

In answering these questions, the study used a policy analysis framework. Policy analysis is a broad term which encompasses many theoretical and methodological approaches. In this study, policy was analysed from the perspective of actors and processes (Walt and Gilson, 1994), drawing strongly on political theories and concepts to understand how policy-making on population and FP was carried out in each pair of countries over a period of three decades. Beginning with a simple model of the policy process as consisting of four phases (i.e. problem identification, policy formulation, implementation and evaluation) (Kingdon, 1984; Ham and Hill, 1984), the study focused on the key actors in each country and how they influenced these different phases. The most prominent actors were expected to be “policy elites” defined by Grindle and Thomas (1991) as individuals or groups “formally charged with making authoritative decisions in government”. In addition, the study was concerned with the historical and contemporary context within which policy-making was carried out. The study used Leichter’s typology to identify and explore four types of contextual factor — situational, structural, cultural and exogenous (Leichter, 1979).

Using this analytical framework, national researchers carried out eight detailed case studies of the historical evolution of population policies and FP programmes in each country. The methods used by the researchers were interviews with key informants — notably past and present policy makers, officials of external donor agencies and representatives of NGOs — and reviews of primary and secondary materials on population policies and FP programmes. The case study reports were then used to draw out comparisons within each pair of countries concerning the policy actors, processes and contexts characterising them, and to draw lessons regarding how these factors have constrained or enabled population policies and FP programmes in their countries. An analysis of the link between policy-making at the national and global levels has been presented elsewhere (Lee and Walt, 1995).

The study found that there are three features of policy-making which may explain the difference in programme strength in each pair of countries:

(a) the formation of policy coalitions, supported by policy elites, has been an important contributor to the initiation of population policies and FP programmes;

(b) policy coalitions have been more likely to prevail over time where policy formulation has involved a sharing of the policy risks often associated with FP programmes; and

(c) institutional and financial stability has been important to achieving more effective implementation of FP programmes, as evidenced by increased rates of contraceptive use.

A discussion of each of these, in relation to each pair of countries, is provided below. The findings suggest that there is a need for policy makers to give consideration, not only to the content of population policies and FP programmes, but to how policy actors, processes and contextual factors can influence the strength and effectiveness of such policies.

THE INITIATION OF POPULATION POLICIES AND FAMILY PLANNING PROGRAMMES: THE ROLE OF COALITIONS OF POLICY ELITES

The case studies began by analysing how population issues in general, and FP in particular, came to be identified as a legitimate concern on the policy agenda, and how this was then taken forward in policy making. For all policy makers, the universe of potential issues to be addressed is vast. What leads to attention being given to one issue over another may be influenced by the emergence of new information, shifts in public opinion, lobbying by pressure groups or the convictions of policy makers themselves. The often transitory nature of policy making can also lead policy makers to move their attention from one issue to another.

The study sought to identify what and how actors were involved in supporting or opposing the initiation of population policies and FP programmes in each country. According to Grindle and Thomas (1991), policy elites “have considerable scope to identify problems, articulate goals, define solutions, and think strategically about their implementation”. The study explored the extent to which, in countries where broadly-based or cohesive coalitions of policy elites formed in support of FP, it was more likely that the issue appeared earlier on the policy agenda and was taken forward more effectively. In contrast, where coalitions did not form, or where coalitions opposing FP were comparatively strong, this was accompanied by weaker policies and programmes.

Thailand and the Philippines

Beginning with Thailand and the Philippines, in both countries the initial impetus behind FP came from external donor agencies. In Thailand, following a 1958 World Bank report on the adverse impact of rapid population growth on the country’s economic development, high-level consultations were held among policy elites which involved
the head of state (King Rama IX), the chief executive (prime minister), government ministers, civil servants, the academic community, health professionals and the mass media. This “highly collective process” was then institutionalised into a strong coalition with the creation of the Subcommittee on Population Policy and Planning which continued to hold regular meetings to discuss the country’s population policy. Its membership included representatives of the ministries of public health, finance and education; the National Statistical Office; research institutions in state universities; and the Department of Technical and Economic Cooperation, Office of the Prime Minister. Finally, a National Family Planning Committee was created under the Ministry of Public Health, comprised of top-level bureaucrats (e.g. permanent secretaries), directors of research institutions, and heads of relevant NGOs such as the Planned Parenthood Association of Thailand (PPAT), to formulate specific policies on FP (Wongboonsin, 1994). With this broad and cohesive coalition of policy elites, Thailand was able to initiate and sustain a strong FP programme despite frequent changes in government from the 1960s.

The coalition of policy elites in Thailand contrasts with the disunity which characterised the Philippines during the early stages of the policy process. During the 1960s, external donor agencies such as the U.S. Agency for International Development (USAID), International Planned Parenthood Federation (IPPF), Ford Foundation and Population Council, also actively promoted FP programmes (Lim, 1976). This was initially supported by President Marcos who attempted to bring together different groups at a high-level meeting convened by his Executive Secretary, Rafael Salas, to discuss population issues. This led to the creation of the Population Commission (PopCom) in 1969, a consultative body comprising relevant government ministries and representatives of many religious groups. However, Salas left the Philippines soon after to become the first Executive Director of the International Planned Parenthood Federation (IPPF), and from small Christian-run health centres. This was met with vocal opposition from large religious groups, led by the Catholic Church, and from the Women’s League, led by the prominent figure of Chibesa Kankasa. It would not be until the mid 1980s, when the UN Population Fund (UNFPA) successfully won over key individuals, including Mrs. Kankasa, that a policy coalition in favour of FP began to form. This was soon extended to other policy elites, such as the Ministers for Health and National Commission for Development Planning, as reflected in public statements supporting the need to limit population growth (Hopkins and Siamwiza, 1985; Kalumba, 1994).

**Tunisia and Algeria**

The formation of a supportive coalition of policy elites occurred in Tunisia earlier, and to a wider extent, than in Algeria. In the context of wide-ranging social reforms under the leadership of President Bourguiba and the Neo-Destour Party beginning in the 1950s, public statements began to be made by policy elites on the link between economic development and control of population growth. Support for a national population policy came from the Family Planning Welfare Association of Zambia (FPWAZ), an NGO formed in 1972 with partial funding from the International Planned Parenthood Federation (IPPF), and from small Christian-run health centres. This was met with vocal opposition from large religious groups, led by the Catholic Church, and from the Women’s League, led by the prominent figure of Chibesa Kankasa. It would not be until the mid 1980s, when the UN Population Fund (UNFPA) successfully won over key individuals, including Mrs. Kankasa, that a policy coalition in favour of FP began to form. This was soon extended to other policy elites, such as the Ministers for Health and National Commission for Development Planning, as reflected in public statements supporting the need to limit population growth (Hopkins and Siamwiza, 1985; Kalumba, 1994).

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†Interview with Mrs. Danha, National Association of NGOs (NANGO), Harare, 16 February 1994.*
leaders, research institutions and the mass media. For example, newspaper coverage of FP increased from ten articles per year between 1963–65 to an average of one article per week by the mid 1970s*. This support was strengthened further by the creation of the Office National de Famille et Population (ONFP) in 1973, affiliated with the MOPH, and the Higher Population Council and Regional Population Councils (headed by the country’s governors) in 1974 under the Prime Minister. The result of this high-level coalition of support, backed by policy elites, was that FP remained firmly on the policy agenda. In Algeria, however, the Front Liberation Nationale (FLN) came to power in 1965 without “a strong enough social base in one section of the population to enable it to impose radical changes on the rest”. Faced with persistent disunity among its political constituency, as well as within government, policy elites in favour of FP could only move slowly. By the mid 1960s, women’s groups began to call for improved FP services and access to contraception as a right. This was followed by the first “birth spacing” centre in Algiers and a fatwa (religious edict) supporting the voluntary use of contraception. Yet political leaders remained divided throughout the 1970s and 1980s. President Boumedienne continued to be unconvinced by the need to limit population growth, given the country’s size and oil resources, and saw FP as part of western-led neocolonialism (Kouaouci, 1994).

Bangladesh and Pakistan

In the final pair of countries, it has perhaps not been so much the formation of a policy coalition, but rather the weakness of opposition to FP, which distinguishes Bangladesh from Pakistan. During the mid 1970s, potential opposition to FP programmes by Muslim leaders in Bangladesh was effectively undermined by their political marginalisation after they favoured unity with Pakistan during the War of Independence. This opened the way for policy elites within government to take a firm position on FP. Importantly, their position was supported by the substantial presence of external donor agencies whose representatives, in a country so dependent on foreign aid, was part of the policy elite. Together, both those who provided and those who benefited from this inflow of external funding (e.g. MOH, research institutions, NGOs) formed a strong coalition supporting FP programmes (Mahmood, 1994).

In Pakistan, the changing relationships among policy elites was also an important determinant of success for FP programmes. Under the centralised government of Ayub Khan during the 1950s and 1960s, muftas (religious leaders) did not play an influential role. Indeed, using a “steam roller approach” of rapid policy initiation and implementation, Family Planning Commissioner Enver Adil introduced the country’s first, and perhaps strongest, effort to provide FP programmes. Between 1965–70, the family planning scheme was deployed nationally, a “crash programme” backed by high-profile publicity and substantial aid from USAID and other external donors†. While this created many beneficiaries, deeper divisions were created among civil servants competing to share in the large influx of resources‡. The result was that, instead of being built on a broad coalition of key policy actors, involvement in the FP programme was closely tied to the existing system of political favours. Thus, the overthrow of the Ayub regime in 1968 led to its downfall as well. As Khan (1994) writes, “If population was a favourite of Ayub’s, it could never become President Bhutto’s pet cause”. It was not until the mid 1970s that Bhutto began to support FP by setting up a government committee to investigate the population programme, and stating publicly that “much more needs to be done”. Again, however, this did not lead to widened support. During the 1977 general election, FP was again caught up in political turmoil. As Joseph Wheeler, Chief of the USAID Mission to Pakistan (1969–77) recalls, “Everything fell apart when the political forces took over population personnel and vehicles for the 1977 elections”. When General Zia declared martial law in 1977, FP was once again relegated to a marginal place on the policy agenda.

In all four pairs of countries, therefore, FP programmes were initiated earlier and more effectively where coalitions of policy elites supported them. In Thailand, Zimbabwe and Bangladesh, external donor agencies formed part of this policy elite given the importance of foreign aid. However, it was their role in contributing to a cohesive policy coalition with national policy elites, rather than their mere presence as in the Philippines, Zambia and Pakistan, which has been the important factor in getting and keeping FP on the policy agenda.

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*Based on a survey by Gueddana (1994) of 481 articles which appeared in the main Tunisian newspapers from 1963-1974.
†The Front de Liberation Nationale (FLN) was a coalition of various factions and classes in Algeria during the anti-colonial struggle. Political differences between regions were overcome during the war against the French but factionalism surfaced again once independence was achieved. For a discussion see Roberts (1984).
‡Interview with Kabir, Vice President (1960–72) and President (1976–present) of the Family Planning Association of Bangladesh, Dhaka, 2 March 1994.
§For example, FP programme staff received salaries substantially higher than other government employees, had use of a fleet of vehicles to visit local communities, and were invited to conferences and training courses abroad.
In most countries, FP has been and remains a controversial issue. Dealing with the most private of human behaviour, yet with widespread and major implications for public policy, FP must be approached by policy makers with due care and attention. One way of approaching such a potentially contentious issue is to spread the policy risk. Policy risk is defined as the possible negative consequences that can arise from pursuing a particular policy. The potential impact may be material, such as a loss of tax revenue, or more intangible but politically important, such as a loss of public confidence. Yet policy makers must frequently take such risks. According to Grindle and Thomas (1991), solutions to any given set of policy problems are not obvious because the impact of policy cannot always be known in advance, because the logic of economics and the logic of politics frequently do not coincide, and because real costs are imposed on specific groups in society when policies and institutions are altered. All policy choices thus involve uncertainty and risk.

Specific policies vary in the amount of policy risk involved depending on the nature of the issue addressed, stakeholders affected and policy environment. In general, policies posing greater risk include those which affect a wider range of stakeholders, involve a relatively large amount of resources, and have a greater lack of information or knowledge (i.e., uncertainty).

One strategy for dealing with policy risk is to spread risk across time or place. This could be achieved, for example, by encouraging broad participation in policy making by a wider range of stakeholders, creating a collective rationale for FP congruent with broadly held social values and beliefs (e.g., birth spacing, economic development), or introducing the policy more gradually over time. In this way, the risk associated with FP need not be incurred by a particular individual or group who might, in turn, be vulnerable to opponents of the policy.

The study sought to explore the extent to which FP programmes were more likely to be sustained where policy risks were successfully spread. While the degree of policy risk associated with FP varied from country to country, as described below, the comparative effectiveness with which policy elites spread the specific risk in each pair of countries was expected to distinguish stronger from weaker FP programmes.

In Thailand, where the government pursued a pronatalist policy until the late 1950s, the policy risk for FP programmes stemmed from its aim to reverse two centuries of promoting large families and population growth for “the greatness of the nation”. These views were maintained by two committees of the National Research Council which, in a report submitted to the Cabinet in 1960, insisted that Thailand’s population should continue to grow as an engine for economic development. Furthermore, the report argued that a FP policy might lead to a deterioration in public morality (Wongboonsin, 1994). To address this policy risk, supporters of FP (the coalition of policy elites described above) involved different institutions within and outside of government by using a broadly appealing rationale for FP programmes. Reconciling FP with the country’s Buddhist culture, notably the strong reverence for life in all forms, strong emphasis was placed on the need to reduce population growth in order to improve the “quality of life” of all Thais. In this way, policy risk was tempered by arguing that FP programmes were in the collective interest of all citizens.

In contrast, policy risk remained concentrated in the hands of relatively few individuals in the Philippines, namely the President and his/her senior political appointees. While the government created a sense of shared responsibility for population policies in Thailand through a broadly appealing rationale, when President Marcos was re-elected in 1969, he felt secure enough to assume much of the policy risk himself. FP programmes were very much his administration’s initiative, with policy formulation involving few individuals other than political appointees. When his hold on power weakened in the 1970s, external donor agencies maintained momentum behind FP by providing a large proportion of the funding for programmes* but, in doing so, became the main risk holders. As Carino (1994) writes, heavy reliance on external funding contributed to a belief that the policy was “a foreign imposition which has never developed its own local constituency”. However, the lack of a broad domestic constituency for FP continued. The concentration of policy risk in the executive, and consequent vulnerability of FP to political change, became apparent when Aquino became president in 1986. Opposed to the strong influence of the U.S. on the country’s foreign and domestic policies, and drawing much of her support from the Catholic Church, she saw FP as closely identified with the previous regime or as foreign-driven (Carino, 1994). This was accompanied by the lack of one clear rationale for FP programmes with broad and sustained appeal, instead adopting different rationales as international opinion changed†.

In Zimbabwe, the government faced a high level of policy risk in supporting FP after independence in 1980. It needed to transform public perceptions of FP, from being a remnant of the colonial past, to a service perceived as run by and for black
Zimbabweans. This was initially achieved by allowing an NGO, the Family Planning Association (FPA), to be the main risk taker, thus putting FP institutionally at arm's length. At the same time, the government continued to fund some of the FPA's activities with additional support from external donors (see below). With the banning of Provera in 1981, followed by the resignation of many long-serving (white) staff of the FPA, the government renamed the organisation the Child Spacing and Fertility Association (CSFA), with an emphasis on child spacing rather than fertility control. As the administrator of the CSFA stated in 1982, “In an African context, you cannot talk of limiting children. Child spacing however is more convincing in that you are not stopping anyone from having children but helping them plan their families” (Maveneka, 1994). Gradually, with greater acceptance by black Zimbabweans achieved, the government made the CSFA a para-statal in 1984 and renamed it the Zimbabwe National Family Planning Council (ZNFPC). In Zambia, policy risks were assumed by NGOs and a small number of external donors. As a result, FP was seen as a vertical programme in the MOH owned by outsiders, rather than an integrated part of the government’s own health policies. With little support from government institutions, the programme itself had to persuade local authorities to introduce services.

In Tunisia, institutional mobility appears to have been balanced by the spread of policy risk widely throughout government, giving FP a firmer institutional support base than in Algeria. During the 1970s, the ONFP was located within the MOPH and managed by a Board of Directors representing eight ministries and three national organisations (Gueddana, 1994). In 1982 the ONFP became affiliated with the Ministry of Women and Family Affairs, and in 1986 it moved back again to the MOPH. Throughout this period, the rationale of improving the status of women was consistently given for the FP programme. In Algeria FP remained defined and institutionally fixed as a component of maternal and child health (MCH) within the MOH. Beyond the medical profession, and to a lesser extent women’s organisations, policy risk was spread among few others. Indeed, political leaders did not support the policy, and openly criticised it at the international level during the 1970s (Kouaouci, 1994). This medicalisation of FP left the policy risk relatively unshared, leading it to become marginalised among government policies.

The same ineffectiveness at dealing with policy risk was found in Pakistan where it has been concentrated in prominent individuals or external donors, rather than spread across institutions. This led FP to become a victim of political change when policy elites fell from power (Khan, 1994). In Bangladesh, foreign donors also assumed a prominent role in FP from the mid 1970s, and it was set apart from other sections of the MOH. However, marginalisation of the programme was prevented by policy elites, such as President Rahman, who shared the policy risk by publicly declaring the need to control the country’s population growth as “the number one problem” (Mahmood, 1994). Policy risk was also shared by the extensive bureaucracy which became involved in FP, and by the network of NGOs whose activities were instrumental in delivering local services.

Institutional instability in Pakistan has coincided with a limited role for NGOs. From the late 1950s, the FPAP took a lead role in guiding the government on population. By the mid 1970s, however, the government discouraged increased NGO activity as a potential threat to centralised political power. In 1985, a brief attempt was made to institutionalise the role of NGOs, partly at the behest of the donors, in order to galvanise NGOs and provide another channel for funding. This led to the creation of the Non-Government Organisations Coordinating Council (NGOCC) whose control soon became a source of contention between the FPAP, the only NGO with extensive experience in FP, and the government. As Khan (1994) writes, negotiations proved a “testimony to deeper rifts that would not be resolved”. A struggle ensued from 1985–93, with the government wishing to retain control of objectives, monitoring and evaluation of activities, as well as funding. In 1993, when the mandate of the NGOCC expired, policy makers became embroiled over whether and in what form the NGOCC should be reconstituted. In 1995 it was finally re-established as the National Trust for Population Welfare (NATPOW).

In all four pairs of countries, therefore, the over-concentration of policy risk in relatively few hands made FP programmes more vulnerable to political change. It appears that, along with policy coalitions, strong FP programmes need to be accompanied by a rationale that bonds policy elites together with a broader constituency. In some countries, achieving such consensus was more difficult than others given existing political divisions or instability. Yet, to the extent that policy makers were able to deal effectively with risk, even in potentially volatile policy environments, FP programmes were adopted and maintained. Dealing with policy risk is clearly not a precise science, but part of the art of effective government.

PUTTING POLICY INTO PRACTICE: THE ROLE OF INSTITUTIONAL AND FINANCIAL STABILITY IN IMPLEMENTATION

A third finding of the study is that there were important differences in how FP programmes were implemented in the eight countries. Walt (1995) writes that most attention in the analysis of health policy
has been focused on the formulation of policy, with the assumption that adopted policies will be implemented as desired. There is increasing recognition in the health sector, however, that strategies for the implementation of policies are also integral to effective policy making. An increasing amount of research has sought to identify various preconditions under which effective implementation occurs (Hogwood and Gunn, 1984).

The study found that stronger FP programmes were generally characterised by greater stability of institutional home and/or funding. On the former, implementation encountered difficulties where FP programmes were accompanied by frequent changes in institutional location and/or structure. Programmes were especially effective where the institutions responsible for policy formulation and implementation were closely linked in the policy process, and where responsibility for implementation was clearly demarcated. In addition, reliable financial support was also a necessary, albeit not sufficient, factor in creating strong FP programmes. The case studies showed that predictability of funding commitment over time, accompanied by institutional stability, was more important than significant, but volatile, levels of funding by governments and external donors.

Both institutional and funding stability distinguished the FP programme in Thailand from the Philippines. In Thailand, the Subcommittee for Population Policy and Planning remained “the focal point for the co-ordination of activities of all units engaged in operations, research, and resource allocation ... analysis of national demographic trends, and the monitoring and evaluation of programme implementation in accordance with the population plan” (Robinson and Rachapaetayakom, 1993) since the early 1970s. For the FP programme, in particular, the national family planning committee (NFPC) of the MOPH since its creation in 1970, and has been the “focal point for operations and coordination of FP activities throughout the country” (Wongboonsin, 1994). This relatively unchanging institutional structure contrasts with the Philippines where the PopCom has been frequently changed, from a research institution in 1969, to coordinating body in 1970, to implementer cum coordinator in 1975, and finally to coordinator but not implementer in 1987. During this period, the institutional home of the PopCom shifted among the Office of the President, National Economic and Development Authority (NEDA), Department of Health and Department of Social Welfare and Development, and the appointment of nine executive directors with an average tenure of two to three years (Carino, 1994). While this institutional instability was a reflection of weak commitment to FP by the government, it contributed to difficulties in policy making, including a failure to designate clear responsibility for implementing the programme.

Funding of FP programmes in the two countries also differed. In absolute terms, it is perhaps surprising that the Philippines received comparable, if not larger, amounts of population assistance than Thailand over the same period, with the largest external donors being the World Bank and USAID. In Thailand, however, there has been greater stability of funding over time. As external aid fell from 78% in 1981 to 12.6% in 1991 of total funding for FP, the government gradually assumed greater financial responsibility (Wongboonsin, 1994). This financial transition did not occur in the Philippines where political controversy over FP, and the country’s dependence on external aid, meant a heavy dependence on external donors. This left the programme vulnerable when President Aquino adopted a policy of self-reliance which led to a sudden decline in external aid, unaccompanied by no corresponding increase in government funding. In the late 1980s, external aid began to increase again under President Ramos. However, the government continued to provide only a small fraction of funding for FP, with USAID (64%) and UNFPA (34%) contributing the largest shares (Carino, 1994).

In Zimbabwe/Zambia and Tunisia/Algeria, a separation of the responsibilities for policy formulation and implementation characterised the weaker FP programmes. In Zambia there was minimal institutional support for FP services until the late 1980s, with the first public FP clinic established in 1988. The study found that this may have been due to the fragmentation of the policy process among different institutions. The National Commission for Development Planning was responsible for policy formulation, while the MOH implemented policy decisions. Limited FP services were provided at the local level by small-scale NGOs, but this has not been coordinated with government policy. In Zimbabwe, the study found a more unified institutional structure, firmly linked to the primary health care infrastructure, and based on a close relationship between the MOH and ZNFPC. As a parastatal organisation located under the MOH, the ZNFPC maintained close communication with the government on all stages of the policy process. Nor did it need to compete with other service providers. The ZNFPC had firm ownership of the FP programme and had clear responsibility for its implementation. By 1988, an estimated 75–92% of contraceptives were obtained through public sector services (Kalumba, 1994).

Greater stability of funding also differentiated the two programmes. In Zimbabwe, public funding of FP has been supplemented by financing from USAID, the World Bank, UNFPA and NGOs (Maveneka, 1994). The FP programme in Zambia received minimal government funding during this same period, and far less assistance from external...
donors. The largest sum (US$3.8 million) came from UNFPA which funded the creation of the family health unit in the MOH in 1980. Major donors to Zimbabwe were noticeably absent from or erratic in their assistance to Zambia. It was not until 1993 that USAID agreed to provide a substantial package of support with the World Bank, ODA (UK) and SIDA (Kalumba, 1994). This combined lack of government and donor commitment to FP has resulted in low and unstable levels of funding.

Tunisia and Algeria show a similar contrast in institutional linkages. The Tunisian public health infrastructure was expanded from the 1960s, with FP closely integrated into this structure through the ONFP, a parastatal responsible for both the formulation and implementation of FP policy. Despite frequent changes to its institutional home and a complex institutional structure for service delivery compared to the other case study countries, the ONFP has remained the key organisation (Gueddana, 1994). It has been mainly through the public sector that contraceptive services have been distributed (77% in 1988) (Ross et al., 1992). The FP programme in Algeria has been located in the MOH since the early 1970s when the first Birth Regulation Centre opened in Algiers. By 1978 there were 160 centres in operation, and in 1985 399 centres, each providing contraceptives as part of the national health service (Stephen, 1992). Despite the existence of these facilities, however, most women (60%) obtained their oral contraceptives (the most frequently used method) from the private sector during the mid 1980s (Kouaouci, 1994). One reason for this may be the poor coverage of primary care facilities particularly in rural areas. The emphasis by the government on curative care, building of urban hospitals and training of health personnel during the 1970s may have meant limited implementation of FP services at the wilayats and dairas levels. It is notable that NGOs have not operated FP services in Algeria.

Despite its greater wealth from oil revenues during the 1970s, funding levels for FP in Algeria have been far lower than in Tunisia. While it is difficult to estimate the amount of government funding, because of the lack of a separate budget for FP within MCH until the 1980s, vocal opposition by political leaders to the control of population growth during this period suggests that the amounts were not substantial. Small amounts of population assistance were periodically provided from external donors, notably UNFPA, for demographic studies and censuses. It was not until 1989, however, that any sizeable sum (US$9 million) was given, topped up with an additional 10% of this sum by the government (Kouaouci, 1994). In comparison, funding for the ONFP in Tunisia has been substantially higher from both government and external sources, notably from the World Bank, UNFPA, Population Council and IPPF. For example, World Bank loans totalled US$33 million between 1971–80 and US$41 million between 1981–86. Since the mid 1980s, external aid to Tunisia’s FP programme has declined, from 42% of the ONFP’s budget in 1984 to 10% in 1992. Importantly, the government has taken up this slack with public funding (Gueddana, 1994).

In Pakistan and Bangladesh as one country, the MOH held low status among government ministries, and the health infrastructure remained poorly developed. Although a National Family Planning Council (NFPC) was created under the MOH in the mid 1960s, the health system was already overburdened and ill-equipped to take on a “crash programme”. Despite this weakness, a massive scaling up of the FP programme followed which generated a large inflow of external funding. Implementation suffered many problems as a result including poor administration, record keeping and evaluation, and over ambitious target setting (Khan, 1994). The programme collapsed with the change of government and war with Bangladesh in 1971. Under President Bhutto, the government of Pakistan became keen to expand the national FP programme from the mid 1970s, again through a rapid scaling-up of successful local programmes. As a result of political tug-of-wars between federal and provincial authorities, however, the FP programme moved from the Population Welfare Division of the MOH in 1976, to the Ministry of Planning and Development in 1980, to provincial jurisdiction in 1983, to the Ministry of Population Welfare in 1989 (Robinson et al., 1981). Among the initiatives put forth during this period were the continuous motivation scheme, contraceptive inundation scheme (1973–77), social marketing (1984) and social action programme (1995).

A poorly developed health infrastructure was also an important feature in Bangladesh, and early attempts at implementing FP programmes were not successful. To overcome this problem, the Population Control and Family Planning Division was created in 1974 within the Ministry of Health and Population Control. Supported by external funding, the division was highly vertical in structure yet with the aim of providing FP as part of existing MCH services. Importantly, unlike Pakistan, a strong role was given to NGOs at this early stage to implement FP services locally and fill gaps in the weak health system. By 1990, around 120 NGOs were providing FP services in Bangladesh, many in collaboration with the MOH, and were estimated to be supplying 20% of contraceptive users (Mahmood, 1994).

Differences in funding has also been evident in the two countries. In Pakistan funding has been relatively unstable and has never reached the levels achieved in Bangladesh. Between 1977–82, the government showed little financial commitment to either FP or the health sector as a whole. As
Noman (1988) writes, “The appalling allocations for the social sectors (including reproductive health) are a reflection of political representation in Pakistan. Public policy is formulated by, and in the interests of, a tiny elite which defines priorities and appropriates resources accordingly”. The main source of funding for FP has come from external sources, notably from USAID (Khan, 1994). In Bangladesh, separate public accounts were set up for FP and health in 1974–75, with the government spending about 3% of its development budget on population and FP until 1987–88, rising to 4.4% in recent years (Mahmood, 1994). In comparison, for example, Indonesia has spent around one per cent. Importantly, these funds have been supported by larger amounts of external aid than received by Pakistan, including four World Bank loans (for example, US$601 million for 1992–96).

The four pairs of countries shows that, while there is no single organisational formula for FP programmes that ensures effective implementation, institutional and financial stability distinguished strong from weak programmes. A clearly designated institutional home over time and long term financial commitment were, of course, a reflection of high level political commitment. However, institutional and financial stability, in turn, facilitated the policy process through which FP programmes could be introduced and sustained.

CONCLUSION
This paper has sought to supplement the ongoing debate among demographers on the impact of population policies and FP programmes on fertility decline by identifying factors that may support or inhibit the adoption of FP policies and programmes. Using comparative policy analyses in four pairs of countries, it has been shown that the strength of commitment by governments to FP has been shaped by differences in the process by which FP policies have been initiated, formulated and implemented; the specific actors involved in this process; and the context within which this process has taken place.

The overall conclusion of the study is that how policies are made, and who makes them, are equally important to what policies are made. Much of the population policy literature has focused on the content of policies — for example, what contraindications to provide, which social groups to target, how to deliver reproductive health services and so on. These are clearly vital policy questions. However, there remains an important gap in the population and health policy literature on the strategies that policy makers can use to introduce, develop and carry out new or changes in policy. This paper has described three potential features of such a strategy — coalitions of policy elites, spreading of policy risk, and institutional and financial stability. More policy analysis research is needed to better understand how policy making, for FP and other areas of health, can be further strengthened. Despite the international policy shift from population control to reproductive health since the 1994 International Conference on Population and Development in Cairo, these issues remain relevant. Increasing political sensitivity to a wider range of health care issues, coupled with the greater technical complexity of comprehensive reproductive health services than traditional FP, can only serve to highlight the need for careful attention to the processes and actors involved in policy development.

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The Incidence of Public Spending on Healthcare: Comparative Evidence from Asia

Owen O’Donnell, Eddy van Doorslaer, Ravi P. Rannan-Eliya, Aparnaa Somanathan, Shiva Raj Adhikari, Deni Harbianto, Charu C. Garg, Piya Hanvoravongchai, Mohammed N. Huq, Anup Karan, Gabriel M. Leung, Chi Wan Ng, Badri Raj Pande, Keith Tin, Kanjana Tisayaticom, Laksono Trisnantoro, Yuhui Zhang, and Yuxin Zhao

The article compares the incidence of public healthcare across 11 Asian countries and provinces, testing the dominance of healthcare concentration curves against an equal distribution and Lorenz curves and across countries. The analysis reveals that the distribution of public healthcare is pro-rich in most developing countries. That distribution is avoidable, but a pro-poor incidence is easier to realize at higher national incomes. The experiences of Malaysia, Sri Lanka, and Thailand suggest that increasing the incidence of pro-poor healthcare requires limiting the use of user fees, or protecting the poor effectively from them, and building a wide network of health facilities. Economic growth may not only relax the government budget constraint on pro-poor policies but also increase pro-poor incidence indirectly by raising richer individuals’ demand for private sector alternatives. JEL Codes: H22, H42, H51.
Propoor public spending on healthcare and other services is a stated objective of national governments and international agencies. It is central to the mission of the World Bank and is a key component of the Heavily Indebted Poor Countries Initiative and the International Monetary Fund’s Poverty Reduction and Growth Facility. Motivations include redressing inequity in the distribution of healthcare, reducing health inequality, and raising the human capital of the poor and thereby the growth potential of the economy. In low-income countries, where administrative constraints on redistribution through cash transfers are particularly binding, a subsidiary justification for public spending on healthcare may be the alleviation of poverty and the reduction of inequality (Besley and Coate 1991). The validity of these arguments for public spending on healthcare rests on the empirical question of whether the spending is in fact targeted to the poor.

Benefit incidence analysis identifies the recipients of public spending in relation to their position in the income distribution. Benefit incidence studies, many conducted by the World Bank, generally find that public spending on healthcare in developing countries is not concentrated on the poor (van de Walle 1995; Castro-Leal and others 2000; Mahal and others 2000; Sahn and Younger 2000; Filmer 2003). Most of these studies have been conducted on an ad hoc basis, with relatively little attention to consistency in methods. Limitations in the comparability of the evidence make it difficult to draw lessons about the economic, political, and health system characteristics that explain greater and lesser success in targeting health spending to the poor.

This article presents comparable evidence on the incidence of public health spending using consistent methods across eight Asian countries (Bangladesh, India, Indonesia, Malaysia, Nepal, Sri Lanka, Thailand, and Vietnam) and three Chinese provinces or regions (Gansu, Heilongjiang, and Hong Kong Special Administrative Region). Dominance tests are used to determine whether the distribution of public healthcare deviates significantly from perfect equality. Many indicators show that poorer individuals are generally less healthy (Gwatkin and others 2003) and, one may presume, in greater need of healthcare. From an egalitarian perspective an equitable distribution of healthcare demands that resources be concentrated on the poor. Evidence that the

translational public health at the University of Hong Kong; his email address is gmleung@hku.hk. Keith Tin is a researcher at the University of Hong Kong; his email address is tinyiukei@hkusua.hku.hk. Chiu Wan Ng is a lecturer at the University of Malaya, Malaysia; her email address is chiuwan.ng@ummc.edu.my. Yuxin Zhao is a professor of health economics at the National Health Economics Institute, China; her email address is yuxin.zhao@cnhei.edu.cn. Yuhui Zhang is a researcher at the National Health Economics Institute, China; his email address is zyb@nhei.cn. The authors thank three anonymous referees and the editor for valuable comments. The European Commission International Research Cooperation with Developing Countries (INCO-DEV) program (ICA4-CT-2001-10015) funded the Equity in Asia-Pacific Health Systems (Equitap) project from which this article derives. The Health, Welfare, and Food Bureau of the government of the Hong Kong Special Administrative Region funded the analysis for Hong Kong. A supplemental appendix to this article is available at http://wber.oxfordjournals.org/.
poor do not receive their population share of health spending would be sufficient to reject equity in the allocation of public healthcare. While the main justification for public provision of healthcare is likely to be its impact on the level and distribution of population health, redistribution of living standards may be a further motivation in largely informal economies that are constrained in the execution of tax and cash transfer policies. 1 To assess the redistributive impact of public health spending, its distribution is compared with the Lorenz curve of household income.

One limitation of many previous benefit incidence studies is the crudeness of the unit cost data used to value services (van de Walle 1998; Sahn and Younger 2000). This study derives costs from detailed health accounts, available for most of the countries and provinces, which document public expenditures across health services, facilities, and regions. This allows examination of whether conclusions about the incidence of public healthcare are sensitive to analysis of use or expenditure data.

Data and methods are described in the next section and results are presented and discussed in section II. The findings are summarized in section III.

I. DATA AND METHODS

The objective is to estimate and assess the distribution of public healthcare in relation to economic status. For each country data are from recent health or socioeconomic surveys that provide information on both use of public healthcare and a suitable measure of living standards (see table S-1 in the supplemental appendix, available at http://wber.oxfordjournals.org/). All are nationally representative except for the surveys of Chinese provinces. The preferred proxy for living standards is household (per adult equivalent) consumption, which includes the value of goods produced by the household for its own consumption and a use-value of housing and durable goods. 2 Household expenditure, rather than consumption, is used for Hong Kong SAR, where household production is much less significant. For Malaysia the only available measure of living standards included in the health survey is household income, which is likely to understate the living standards of rural households. It is, however, the measure that has been used in previous incidence studies of Malaysia (Meerman 1979; Hammer, Nabi, and Cerceone 1995).

Distributions of three categories of public healthcare—hospital inpatient care, hospital outpatient care, and nonhospital care—are examined.

1. In Latin America cash transfers are increasingly used to affect the distribution of income, as well as that of health and education services, but this is less so in the low-income economies of Asia, where in-kind transfers, such as healthcare, continue to predominate.

2. The equivalence scale used is $e_h = (A_h + 0.5K_h)^{0.75}$, where $A_h$ is the number of adults in household $h$, and $K_h$ is the number of children 0–14 years old. Parameter values were set on the basis of estimates summarized in Deaton (1997, pp. 241–70).
Nonhospital care is an aggregate of visits to doctors, polyclinics, health centers, and antenatal care (table S-2). For inpatient care the recall period is 12 months, except in Bangladesh (3 months) and Sri Lanka (2 weeks). For all other care the recall period is generally 2 weeks to 1 month, except in Bangladesh where it is 3 months.

Use data do not capture variations in the quality of services received across facilities and geographic locations. This is a potentially important deficiency given evidence of marked quality differences favoring richer neighborhoods even within a single city, such as Delhi, India (Das and Hammer 2005). The service-specific non-negative public subsidy received by an individual can be defined as:

\[ S_{ki} = \max(0, q_{ki} c_{kj} - f_{ki}) \]

where \( q_{ki} \) is the quantity of service \( k \) used by individual \( i \), \( c_{kj} \) is the unit cost of providing \( k \) in region \( j \) where \( i \) resides, and \( f_{ki} \) is the amount paid for \( k \) by \( i \). Where possible, variations in costs by facility (local, district, teaching hospital) and service (inpatient/outpatient) are taken into account. Unit costs are computed as:

\[ c_{kj} = \frac{TRE_{kj}}{\sum_{i \in j} q_{ki} w_i} \]

where \( TRE_{kj} \) is total recurrent public expenditure and \( w_i \) is an expansion factor that inflates sample use to population use. The total public subsidy received by an individual is computed as \( S_i = \sum_k \alpha_k S_{ki} \), where the \( \alpha_k \) terms are scaling factors that standardize use recall periods across services.

National health accounts, available for Bangladesh, the Chinese provinces, Hong Kong SAR, Sri Lanka, and Thailand, are used to disaggregate expenditure figures by facility, service, and region. Full accounts are not available for India, Indonesia, Malaysia, Nepal, and Vietnam. For India unit subsidies computed for another benefit incidence study are used (Mahal and others 2000). These are specific to 960 subgroups (three facilities, 16 major states, urban–rural residence, gender, and five income quintiles). For Indonesia public health expenditure review figures allow expenditures to be disaggregated for each of 30 provinces. For Malaysia expenditure data were disaggregated to five levels of public hospital care, but geographic disaggregation was not undertaken since the use data could not be analyzed by this dimension. Incomplete health accounts for Nepal allow disaggregation by hospital and nonhospital care by region. For Vietnam public accounts and hospital costing estimates were used to compute unit costs by service and facility but not by region (World Bank 2001).

Subtraction of the user payment from equation (1) to get the net benefit of the service is appropriate provided that quality is not responsive to the
payment. This is an untestable assumption with the available data. For China, India, Indonesia, Malaysia, Nepal, and Sri Lanka either the survey data do not contain information on payments made by individuals for public health services or the data are not considered sufficiently reliable, for example, because payments for public and other care are likely to be confused. For these countries it is assumed that all users in a particular region pay the same charge for a given service. Waiting and travel time also reduce the net benefit from care and should, in principle, be valued and subtracted in computing the subsidy. The survey data do not permit this, however. As a consequence, benefits to the rural poor, in particular, may be overstated to the extent that they travel long distances to access better quality care. By contrast, the cost of waiting time will be less for the poor if time is valued according to wage rates.

The incidence of public healthcare is described by its concentration curve, which plots the cumulative proportion of healthcare use and subsidy against the cumulative proportion of the population ranked by household consumption per adult equivalent. To establish whether the subsidy is propoor, in the sense that lower income individuals receive more of the subsidy than the better-off, a test is conducted of whether the concentration curve dominates (lies above) the 45° line. Whether the poorest 20 percent of individuals consume more than 20 percent of healthcare is also tested. Dominance of the concentration curve over the Lorenz curve of household consumption is tested to establish whether spending on public healthcare reduces inequality.

For the dominance tests standard errors of the ordinates of curves and of differences in ordinates are computed, allowing for dependence between curves where appropriate (Bishop, Chow, and Formby 1994; Davidson and Duclos 1997). A multiple comparison approach to testing is adopted (Beach and Richmond 1985; Bishop, Formby, and Thistle 1992), with the null defined as curves being indistinguishable. This is tested against both dominance and crossing of curves (Dardanoni and Forcina 1999). The null is rejected in favor of dominance if there is at least one significant difference between the ordinates of two curves in one direction and no significant difference in the other direction across 19 evenly spaced quantile points from 0.05 to 0.95. The null is rejected in favor of crossing if there is at least one significant difference in each direction. The 5 percent level of significance is used with critical values from the studentized maximum modulus distribution to allow for the joint nature of the test (Beach and Richmond 1985).

An alternative dominance test consistent with the intersection–union principle (Kaur, Rao, and Singh 1994; Howes 1996), which has been used in the

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3. The computation is carried out in Stata.
4. Dardanoni and Forcina (1999) show that the probability that this test will falsely reject the null in favor of dominance does not exceed the significance level and report Monte Carlo evidence suggesting that the actual significance level is well below its nominal value.
benefit incidence literature (Sahn and Younger 2000; Sahn, Younger, and Simler 2000), takes nondominance as the null and tests this against the alternative of strict dominance. This is a conservative test that requires statistically significant differences in ordinates at all points of comparison for the null to be rejected. Dardanoni and Forcina (1999) present Monte Carlo evidence showing that while this test reduces the probability of falsely rejecting nondominance to a negligible value, compared with the multiple comparison approach it has greatly reduced power of detecting dominance when true. Given these results, most weight in the discussion below is given to the results from the multiple comparison tests, but discrepancies with the more conservative intersection–union test are pointed out.

II. Results

In Hong Kong SAR, Malaysia, and Thailand the concentration curve of the total public health subsidy dominates both the Lorenz curve and the 45° line of equality (table 1, final column), indicating that the subsidy is both inequality-reducing and propoor. With the exception of the comparison with the 45° line in the case of Thailand, these dominance results are robust to use of the stricter test. In Sri Lanka an equal distribution of the total subsidy is not rejected. In relative terms this shifts the distribution of living standards toward the poor, as the concentration curve dominates the Lorenz curve. In the remaining countries and provinces the concentration curve of the total subsidy is dominated by the 45° line but, with the exceptions of India and Nepal, dominates the Lorenz curve. That is, the subsidy is prorich but inequality reducing. For Bangladesh and the two Chinese provinces nondominance relative to both the Lorenz curve and the 45° line cannot be rejected when the more conservative intersection–union test is employed.\(^5\)

The degree to which the public health subsidy is targeted to the poor can be seen more explicitly by examining the share of the subsidy received by the poorest 20 percent of individuals (table 2). Public healthcare is clearly most propoor in Hong Kong SAR, with the poorest fifth of the population receiving almost two-fifths of the total subsidy (table 2, final column). In Malaysia the poorest quintile also receives significantly more than 20 percent of the total subsidy, but the propoor bias is much less than it is in Hong Kong SAR. In Sri Lanka and Thailand the poorest quintile’s share of the total subsidy does not differ significantly from 20 percent. In the remainder of countries and provinces, with the exception of Bangladesh, the poorest 20 percent of individuals receive significantly less than 20 percent of the public health subsidy. The share going to the poorest 20 percent of individuals is lowest in Nepal, at less than 7 percent, followed by the two Chinese provinces, at 8–10 percent. In these

\(^5\) Concentration and Kakwani indices, which provide summary measures of the magnitude by which the concentration curve deviates from the 45° line and the Lorenz curve, are given in table S-3.

5. Concentration and Kakwani indices, which provide summary measures of the magnitude by which the concentration curve deviates from the 45° line and the Lorenz curve, are given in table S-3.
**Table 1. Tests of Dominance of Concentration Curves for Public Health Service Use and Subsidy against the Lorenz Curve and the 45 Degree Line of Equality**

<table>
<thead>
<tr>
<th>Country, province, or region</th>
<th>Use</th>
<th>Hospital inpatient</th>
<th>Hospital outpatient</th>
<th>Nonhospital</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
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<tr>
<td>Gansu, China</td>
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<tr>
<td>Heilongjiang, China</td>
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<td></td>
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<tr>
<td>Hong Kong SAR</td>
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<tr>
<td>Indonesia</td>
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<tr>
<td>Malaysia</td>
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<td></td>
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<tr>
<td>Nepal</td>
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<tr>
<td>Sri Lanka</td>
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<td>Thailand</td>
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<tr>
<td>Vietnam</td>
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</tr>
</tbody>
</table>

Blank cell indicates failure to reject the null hypothesis that curves are indistinguishable using the multiple comparison test (Bishop, Formby, and Thistle 1992) at the 5 percent significance level. An +/− indicates rejection of the null hypothesis in favor of curves crossing using the same test.

Indicates rejection of the null hypothesis that curves are indistinguishable in favor of curves crossing using the same test.

Indicates rejection of the null hypothesis in favor of dominance using the same test. A + indicates that healthcare is more concentrated on the poor than is household consumption per adult (Lorenz) or equal per capita distribution (45°), while a − indicates that it is less concentrated.

*indicates rejection of the null hypothesis of nondominance in favor of an alternative of strict dominance using the intersection–union test (Howes 1996) and a 5 percent significance level. Dominance is in the direction indicated by the + or −, as above.

n.a. means that data were not available to conduct the test.

The results in the hospital inpatient columns refer to both inpatient and outpatient.

Source: Authors’ calculations based on survey data documented in table S.1 (see supplemental appendix available at http://wber.oxfordjournals.org/).
Table 2. Share of Total Household Consumption and Public Healthcare Subsidy Received by Poorest Quintile of Individuals (percent)

<table>
<thead>
<tr>
<th>Country, province, or region</th>
<th>Household consumption per adult equivalent</th>
<th>Hospital care</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Inpatient</td>
<td>Outpatient</td>
<td>Nonhospital care</td>
<td>Total subsidy</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>7.25* (0.0437)</td>
<td>15.20 (6.3732)</td>
<td>11.60* (1.8853)</td>
<td>24.42 (5.5695)</td>
<td>16.78 (3.4916)</td>
</tr>
<tr>
<td>Gansu, China(^a)</td>
<td>5.24* (0.0695)</td>
<td>7.27* (1.5331)</td>
<td>9.57* (1.6473)</td>
<td>n.a.</td>
<td>8.17* (1.2265)</td>
</tr>
<tr>
<td>Heilongjiang, China(^a)</td>
<td>5.98* (0.0759)</td>
<td>6.57* (1.8184)</td>
<td>12.32* (2.5677)</td>
<td>n.a.</td>
<td>10.47* (1.8729)</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td>6.82* (0.0377)</td>
<td>38.77* (3.2580)</td>
<td>38.68* (2.2048)</td>
<td>38.19* (1.7718)</td>
<td>38.73* (2.7463)</td>
</tr>
<tr>
<td>India</td>
<td>10.50* (0.0083)</td>
<td>10.70* (1.1086)</td>
<td>18.59 (1.6219)</td>
<td>26.23* (1.5471)</td>
<td>12.49* (0.9553)</td>
</tr>
<tr>
<td>Indonesia</td>
<td>9.77* (0.0078)</td>
<td>3.80* (0.3762)</td>
<td>5.77* (0.4857)</td>
<td>19.73 (0.3199)</td>
<td>13.46* (0.2582)</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7.20* (0.0370)</td>
<td>21.19 (0.8807)</td>
<td>18.72 (1.1208)</td>
<td>32.25* (1.3422)</td>
<td>22.95* (0.6921)</td>
</tr>
<tr>
<td>Nepal(^b)</td>
<td>8.05* (0.0534)</td>
<td>3.52* (1.4851)</td>
<td>3.52* (1.4851)</td>
<td>9.04* (1.7220)</td>
<td>6.64* (1.1780)</td>
</tr>
<tr>
<td>Sri Lanka(^c)</td>
<td>8.31* (0.0725)</td>
<td>20.76 (2.6013)</td>
<td>21.11 (1.9418)</td>
<td>n.a.</td>
<td>20.88 (1.8367)</td>
</tr>
<tr>
<td>Thailand</td>
<td>6.94* (0.0589)</td>
<td>21.26 (1.4144)</td>
<td>17.70* (1.0278)</td>
<td>31.16* (1.9137)</td>
<td>20.06 (0.8963)</td>
</tr>
<tr>
<td>Vietnam</td>
<td>8.78* (0.0429)</td>
<td>13.64* (1.9209)</td>
<td>11.55* (1.7049)</td>
<td>19.73 (1.7346)</td>
<td>14.79* (1.5416)</td>
</tr>
</tbody>
</table>

*Significantly different from 20 percent at the 5 percent significance level. Bold indicates that the subsidy share is significantly different from the household consumption share.

n.a. means that data were not available to conduct the test.

Note: Numbers in parentheses are standard errors.

\(^a\)There are no data on nonhospital care, but low-level hospitals, equivalent to polyclinics and health centers, are included.

\(^b\)It is not possible to distinguish between hospital inpatient and outpatient visits.

\(^c\)The subsidy specific to nonhospital care cannot be computed.

Source: Authors’ calculations based on data documented in table S.1 (see supplemental appendix available at http://wber.oxfordjournals.org/).
cases, and in Bangladesh, India, and Indonesia, the richest quintile receives more than 30 percent of the total subsidy (not shown in table). In all cases but Nepal the share of the subsidy going to the poorest quintile is significantly greater than its share of total household consumption.

**Differences in Incidence across Health Services**

Only in Hong Kong SAR does the concentration curve dominate the 45° line for both hospital inpatient and outpatient care and for nonhospital care (see table 1), with the poorest quintile receiving about 39 percent of the subsidy to all three services (see table 2). In Malaysia the concentration curves for inpatient and nonhospital care lie above the 45° line, but the outpatient care curve does not deviate significantly from the line of equality (see table 1). In Thailand it is inpatient care that is equally distributed, while the concentration curves for the other types of care dominate the diagonal, at least using the less stringent test criteria. However, in both Malaysia and Thailand the poorest quintile receives significantly more than 20 percent of the subsidy only for nonhospital care (see table 2). In Sri Lanka there is equality in the distributions of all services except for a prooor distribution of outpatient care as measured by use (see table 1). In the remainder of countries and provinces, concentration curves for hospital care tend to lie below the diagonal—meaning that the better-off consume more—while the curves for nonhospital care lie above it. The poorest quintile fairly consistently receives less than 20 percent of the subsidy for hospital care and significantly more than 20 percent of the subsidy for nonhospital care only in India (see table 2).

For most countries and provinces the distribution of nonhospital care dominates that of hospital inpatient and outpatient care (table 3), confirming that nonhospital care is generally more targeted to the poor than is hospital care.

**Comparison of Use and Subsidy Distributions**

Estimating the incidence of the public healthcare subsidy requires much more information than that of raw use. Unit costs must be estimated at the facility and regional levels and, where appropriate and possible, fees paid by individuals must be identified. The effort involved to obtain this extra information is worthwhile only if there is significant variation in unit costs or fees with the indicator of household living standards and if this covariance is sufficiently large relative to that for use. The dominance tests reported in table 1 display a considerable consistency across the use and subsidy measures. Only in 10 of 58 pairwise comparisons do the conclusions of the test differ depending on whether the distribution of use or the subsidy is examined. This is not an insubstantial degree of disagreement, but it suggests that the results of dominance tests are generally robust to the measure over which incidence is examined and that variation in use, not unit subsidies, is the main driver of the public subsidy distribution. This increases the confidence that can be placed in studies that look only at use. It is consistent with the findings of Sahn and
### Table 3. Tests of Dominance between Concentration Curves for Different Public Health Services and between Use and Subsidy Distributions

<table>
<thead>
<tr>
<th>Country, province, or region</th>
<th>Hospital inpatient versus outpatient</th>
<th>Hospital inpatient versus nonhospital</th>
<th>Hospital outpatient versus nonhospital</th>
<th>Hospital inpatient</th>
<th>Hospital outpatient</th>
<th>Nonhospital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>op&gt;ip</td>
<td>n.a.</td>
<td>n.a.</td>
<td>use&gt;subsidy</td>
<td>n.a.</td>
<td></td>
</tr>
<tr>
<td>Gansu, China</td>
<td>op&gt;ip*</td>
<td>n.a.</td>
<td>n.a.</td>
<td>use&gt;subsidy</td>
<td>n.a.</td>
<td>use&gt;subsidy</td>
</tr>
<tr>
<td>Heilongjiang, China</td>
<td>op&gt;ip</td>
<td>n.a.</td>
<td>n.a.</td>
<td>use&gt;subsidy</td>
<td>n.a.</td>
<td>use&gt;subsidy</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
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<td></td>
</tr>
<tr>
<td>India</td>
<td>op&gt;ip*</td>
<td>non-h&gt;ip*</td>
<td>non-h&gt;op*</td>
<td>use&gt;subsidy*</td>
<td>use&gt;subsidy*</td>
<td>use&gt;subsidy</td>
</tr>
<tr>
<td>Indonesia</td>
<td>op&gt;ip</td>
<td>non-h&gt;ip*</td>
<td>non-h&gt;op*</td>
<td>use&gt;subsidy*</td>
<td>use&gt;subsidy*</td>
<td>use&gt;subsidy</td>
</tr>
<tr>
<td>Malaysia</td>
<td>op&gt;ip</td>
<td>non-h&gt;ip*</td>
<td>non-h&gt;op*</td>
<td>use&gt;subsidy*</td>
<td>use&gt;subsidy*</td>
<td>n.a.</td>
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<tr>
<td>Nepal</td>
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<td>Sri Lanka</td>
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<td>Thailand</td>
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<tr>
<td>Vietnam</td>
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<td></td>
</tr>
</tbody>
</table>

*indicates that the null hypothesis is rejected in favor of dominance, for example, op > ip indicates that outpatient care is more prooor than inpatient care and use > subsidy indicates that the use distribution is more prooor than the subsidy distribution.

Blank cell indicates failure to reject the null hypothesis that curves are indistinguishable using the multiple comparison test at the 5 percent significance level.

Source: Authors’ calculations based on survey data documented in table S.1 (see supplemental appendix S.1 available at http://wber.oxfordjournals.org/).
Younger (2000) but somewhat stronger, since the current study allows for more sources of heterogeneity in unit subsidies.

Notwithstanding this result, there are significant differences between the distributions of use and subsidy. In Indonesia, Malaysia, and Sri Lanka the use distributions dominate—they are more propoor than the subsidy distributions—for all services, and in Gansu, Hong Kong SAR, and Nepal this is true for some services (see table 3). Dominance is not always found using the more conservative test, however. Urban–rural and regional differences in the quality of care are the most likely reason that the subsidy is less propoor than use. Only in India, Thailand, and Vietnam does the subsidy distribution dominate the use distribution for certain services, indicating that the subsidy per unit of care falls as household consumption rises. This is likely due to user payments rising with household consumption, whether because of exemptions granted to the poor or because richer households are paying for higher quality care that is not reflected in the unit cost figures.

**Cross-Country Comparisons**

As would be expected from the results already presented, the subsidy concentration curve of Hong Kong SAR dominates that of all other countries and provinces (table 4). The incidence of public care is so skewed toward the poor that the distribution of total healthcare (public and private) in Hong Kong SAR is propoor (Leung, Tin, and O'Donnell 2005). While this is in striking contrast with the distribution of healthcare in the low- and middle-income countries examined in this article, it is consistent with the distribution that prevails in most high-income economies (Van Doorslaer, Masseria, and Koolman 2006).

There are no significant differences between the concentration curves of Malaysia, Sri Lanka, and Thailand, where the subsidies range from slightly propoor to evenly distributed. On the less strict test the Vietnamese distribution is dominated by that of Hong Kong SAR, Malaysia, and Thailand and it is indistinguishable from that of Sri Lanka. It dominates the subsidy distributions of all the remaining countries and provinces using the less stringent test. For most pairwise comparisons the subsidy concentration curves of Bangladesh, Gansu, Heilongjing, India, Indonesia, and Nepal are indistinguishable. Exceptions are that India and Indonesia dominate Gansu and Nepal using the less strict test. In all these countries and provinces the public health subsidy is significantly and substantially prorich (see tables 1 and 2). This is

6. See table S-4 for cross-country dominance tests for each type of health service subsidy.
7. Some 43.5 percent of total expenditure on health in Hong Kong SAR is funded from private sources (Hong Kong Domestic Health Accounts 1999–2000).
8. This is not due simply to the fact that unit subsidies are negatively correlated with household consumption in Vietnam, unlike in most other countries and provinces. Only one cross-country dominance result for Vietnam becomes insignificant when use of each service rather than the subsidy to each service is examined.
Table 4. Cross-Country Dominance of Public Health Subsidy Concentration Curves

<table>
<thead>
<tr>
<th></th>
<th>Malaysia</th>
<th>Thailand</th>
<th>Sri Lanka</th>
<th>Vietnam</th>
<th>Bangladesh</th>
<th>Indonesia</th>
<th>India</th>
<th>Gansu</th>
<th>Heilongjiang</th>
<th>Nepal</th>
</tr>
</thead>
<tbody>
<tr>
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<td>D*</td>
<td>D*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D*</td>
<td>D*</td>
</tr>
<tr>
<td>Malaysia</td>
<td>n.s.</td>
<td></td>
<td></td>
<td>D</td>
<td></td>
<td>D</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
</tr>
<tr>
<td>Thailand</td>
<td>n.s.</td>
<td></td>
<td></td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D*</td>
<td>D*</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>n.s.</td>
<td></td>
<td></td>
<td>n.s.</td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D*</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D*</td>
<td></td>
</tr>
<tr>
<td>India</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>D</td>
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</tr>
<tr>
<td>Gansu, China</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D*</td>
<td></td>
</tr>
<tr>
<td>Heilongjiang, China</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>D</td>
<td></td>
</tr>
</tbody>
</table>

n.s. indicates failure to reject the null hypothesis that the curves are indistinguishable using the multiple comparison test at the 5 percent significance level.<br/>D indicates rejection of the null in favor of dominance (more propoor) of the row country over the column country by the same test.<br/>* indicates that the intersection-union test rejects the null of nondominance against the alternative of strict dominance at the 5 percent significance level.<br/>

Source: Authors' calculations based on survey data documented in table S.1 (see supplemental appendix available at http://wber.oxfordjournals.org/).
consistent with the findings of the majority of benefit incidence studies conducted in developing countries (van de Walle 1995; Castro-Leal and others 2000; Mahal and others 2000; Sahn and Younger 2000; Filmer 2003). But Malaysia, Thailand, Sri Lanka, and to a lesser extent Vietnam stand out as exceptions to this norm of prorich bias. Why is it that public healthcare is more prooor in these four countries than it is in other developing countries of Asia and elsewhere?

National income is an obvious candidate to explain cross-country variation in the targeting of public health spending. Public healthcare is strongly targeted to the poor in Hong Kong SAR in large part because Hong Kong is rich enough to afford a dual system of universal public healthcare funded from general taxation and a private healthcare system used predominantly by the better-off to bypass the bottlenecks and inconveniences of the public system. It is surely no coincidence that Malaysia and Thailand are the only other two countries where public health spending is significantly prooor. While they are not nearly as rich as Hong Kong SAR, they are considerably better off than the other countries included in this study (see table S-5).

Economic development is not the sole explanation for cross-country differences in the incidence of public healthcare. It does not explain why Sri Lanka, despite a lower GDP per capita than Indonesia, achieves a distribution of health resources that is much more favorable to the poor. Levels of public spending on health and health system characteristics might be expected to explain part of the residual cross-country variation in targeting of the poor. In per capita terms Sri Lanka spends 2.5 times as much as Indonesia on public healthcare (table S-5). The scale of public spending may influence its incidence by affording a wider geographic distribution of public health facilities and so bring services closer to poor, rural populations.

There may also be a trickle-down effect. At low levels of spending the politically powerful, higher income urban elite may be more successful than the rural poor in capturing spending for programs that meet their own needs. As spending levels rise and more of the health needs of higher income groups are satisfied, additional programs can be better targeted to the needs of the poor (Lanjouw and Ravallion 1999). Countering this tendency, the pressure from higher income groups for prioritization of tertiary-level city hospitals may be maintained by the attraction of continuing advances in medical technology (Victora and others 2000).

The extent to which higher income groups claim the benefits from public healthcare will depend on whether an attractive private sector alternative exists. Income-elastic demand for healthcare quality, in particular amenities and convenience of service, will lead to greater substitution of private for public care by an expanding middle-class as the economy grows. Hammer, Nabi, and Cercone (1995) argue that this mechanism was largely responsible for the increased prooor incidence of public health spending in Malaysia between the mid-1970s and the mid-1980s. The private sector continues to
grow in Malaysia, driven in part by dissatisfaction with the responsiveness of the public system (Shepard, Savedoff, and Phua 2002). In Thailand, which has also achieved impressive economic growth in recent years, the private sector is also expanding rapidly (Towse, Mills, and Tangcharoensathien 2004).

The combination of (near) universal public provision, a private sector offering an attractive alternative, and incomes that make demand for this alternative effective leads to redistribution through public provision in the way that theory predicts (Besley and Coate 1991). This mechanism implies a possibly uncomfortable tradeoff between the quality of public healthcare and the extent to which it is targeted to the poor. In lower income countries, such as Bangladesh, India, and Indonesia, separation of low- and high-income groups into the public and private sectors is constrained not only by the limited purchasing power of the middle class but also by marked intra-sectoral quality differentials. There is evidence of pronounced income gradients in the quality of private sector care used in India (Das and Hammer 2005). There, as in Bangladesh, the poor make extensive use of unqualified private providers.

This discussion suggests that economic development, the scale of public health spending, and the availability and quality of private sector alternatives may each help explain cross-country variation in the incidence of public health spending. Regression analysis is used to examine whether this is the case across the study countries and provinces and others for which benefit incidence results are available from other studies (Filmer 2003). Only 24 observations are available for this analysis, and so the results (table 5) should be treated with due caution. It is an exploratory exercise and not an empirical test of hypotheses. The dependent variable is the (log) percentage of the total public subsidy received by the poorest quintile. This share increases significantly with GDP per capita, with an elasticity of about 0.3. At a lower level of significance (10 percent), the poorest quintile’s share is also increasing with public health spending as a percentage of GDP, with an elasticity of about 0.5. So, for a given GDP there is some evidence that the share of the subsidy going to the poor is increasing with the scale of public health spending.

To examine whether, for a given level of public expenditure, the share of the subsidy going to the poor increases with use of private sector alternatives, public spending as a percentage of total expenditure on health is included in the regression. Consistent with the hypothesis, the coefficient is negative but does not reach conventional levels of significance. The regression residuals are largest, in absolute value, for the two Chinese provinces. Public health spending in these provinces is much less targeted on the poor than would be expected given GDP and the scale of public spending and its share of total health financing. This is most likely due to the extensive imposition of user charges with no income-related exemptions. Excluding these two provinces increases the magnitude and significance of the coefficients. In particular, the
negative coefficient on the public health financing share becomes significant at 5 percent. Although this study has found that the public health subsidy is not targeted on the poor in the majority of the 11 Asian countries and provinces examined, the distribution appears to be even more skewed toward the better-off in Eastern Europe and Central Asia and in Sub-Saharan Africa.

9. The results are similar if the weight given to observations with large absolute residuals is reduced, but not set to zero, using robust regression. The results are also robust to the exclusion of Hong Kong SAR, where the subsidy is much more propoor and GDP is much higher than in the other countries and provinces.

10. Other potential explanatory factors, including the Gini coefficient, the urbanization rate, and the doctor supply rate, were not found to be significant.
These regression results tell only of associations in a fairly small sample of countries and should not be interpreted as causal effects. GDP may be acting as a proxy for a number of primary determinants of incidence, such as the quality of governance and preferences for redistribution. Through human capital acquisition, assuming that the marginal product of investments in health is higher for poorer (and sicker) individuals, GDP may itself be responsive to the targeting of healthcare to the poor. Policies are of course endogenous. The positive correlation between the scale and the propoor incidence of public spending may derive from the degree of political commitment to reaching the poor. Reducing racial conflict in post-independence Malaysia was a major motivation for the expansion in access to healthcare and the channeling of public resources to the rural Malay population (Hammer, Nabi, and Cercone 1995). The early adoption of democracy and female suffrage in Sri Lanka contributed to the high priority given to healthcare and the wide geographical distribution of health resources in response to the lobbying of local politicians (McNay, Keith, and Penrose 2004). In fact, a 1928 commission proposed the full enfranchisement of women at the same time as men as a means of securing a political lobby for the prioritization of healthcare (Rannan-Eliya 2001). High rates of female literacy and a relatively high degree of female autonomy have raised awareness of maternal and child health problems, leading to high rates of use of modern health facilities and medicines (Caldwell 1986).

Political and economic circumstances determine the motivation and resources for the pursuit of propoor public healthcare, but realization of the objective depends on the specific health sector policies adopted. One policy has been to minimize charges for poor patients in accessing care. There are virtually no fees for public health services in Sri Lanka, and fees are minimal in both Hong Kong SAR and Malaysia (table S-6). In all three cases fees are not retained by facilities or even by the health sector, but accrue to general revenues, thus undermining providers’ incentives for generating fee revenue. The near avoidance of user fees in resource-poor Sri Lanka has been feasible only by driving down unit costs (Rannan-Eliya 2001). Nonmonetary incentives, such as professional development and opportunities to work simultaneously in the private sector, help maintain high levels of staff productivity. In Thailand fees have been much higher. Prior to the introduction of universal coverage in 2001, public hospitals received 20–50 percent of their revenue from user fees (Towse, Mills, and Tangcharoensathien 2004). But the disincentive effect on use by the poor was limited through a fairly effective healthcard scheme that covered about two-thirds of the poor. Crucially, this scheme compensated providers for fee exemptions from a designated budget.

A geographically dispersed network of health facilities close to the rural population also appears to contribute to the propoor targeting of health spending. In Malaysia half the population lives within 10 kilometers of a public
hospital and within 4.6 kilometers of a public clinic. In Sri Lanka most of the population has lived within 5 kilometers of a healthcare facility since the early 1970s, and most of the rural population is within 5–10 kilometers of a peripheral facility (Hsiao 2000). In Thailand, although beds and doctors are highly concentrated in Bangkok, an extensive rural infrastructure has been developed over decades. There are primary care health centers in all subdistricts and community hospitals in all districts (Towse, Mills, and Tangcharoensathien 2004). The introduction of universal coverage has initiated a major shift of resources from urban hospitals to primary care. Vietnam also has a relatively high level of provision in rural areas through a comprehensive network of commune health centers.

But the contribution of primary care to propoor public health spending should not be exaggerated. Public health spending is better targeted on the poor in Hong Kong SAR, Malaysia, Thailand, Sri Lanka, and Vietnam because the distribution of hospital care is more favorable to the poor and not because more resources are devoted to nonhospital care (see table S-3). Of course, hospitals differ. In Malaysia and Sri Lanka many hospitals are small in scale and not particularly well equipped. But their wide geographic distribution makes them accessible to the rural poor. In many other low-income countries, such as Bangladesh, resources are more concentrated in large, well-equipped hospitals in urban centers that are inaccessible to the poor.

### III. Conclusion

The analysis reveals substantial variation across Asia in the incidence of public subsidies for healthcare. Public spending is strongly propoor in high-income Hong Kong SAR. The total public health subsidy is more moderately propoor in low- to middle-income Malaysia and Thailand and it is evenly distributed in low-income Sri Lanka. At a still lower level of national income the subsidy is mildly prorich in Vietnam. In the remainder of the low-income countries and provinces examined, which account for the far greater share of the Asian population, the better-off receive substantially more of the subsidy than do the poor. In most cases there is prorich bias in the distribution of hospital care, while nonhospital care is propoor. A greater share of the healthcare subsidy goes to hospital care, and so this dominates the overall distribution. While public health subsidies are typically not propoor, they are inequality reducing in all cases except India and Nepal.

Most within- and between-country dominance tests are robust to whether the distribution of healthcare use or the value of the subsidy is examined. This is a reassuring result since the health accounts data required for analysis of subsidy incidence are often unavailable and raw use data must be relied on. There are, however, significant differences between the distribution of

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11. Authors’ calculations from the 1996 National Health and Morbidity Survey.
healthcare use and healthcare subsidies, with use often more propoor. Where this occurs, the likely explanation is urban–rural and interregional differences in the nature and funding of facilities.

The analysis shows that the prorich distribution of public healthcare subsidies that is pervasive in most developing countries is avoidable but that effective targeting is easier to realize at higher levels of national incomes. The experiences of Malaysia, Sri Lanka, Thailand, and Vietnam suggest that achieving a more propoor incidence of public health spending requires limiting the use of user fees, or at least effectively protecting the poor from them; building a wide geographic network of health facilities; and ensuring that hospital care, which absorbs most spending, is sufficiently targeted at the poor.
## Table S1. Description of sample surveys

<table>
<thead>
<tr>
<th>Country</th>
<th>Survey year</th>
<th>Survey name</th>
<th>Institution conducting survey</th>
<th>Survey coverage</th>
<th>Survey design</th>
<th>Sampling unit</th>
<th>Response rate</th>
<th>Sample size individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gansu</td>
<td>2003</td>
<td>National Health Household Interview Surveys</td>
<td>Ministry of Health</td>
<td>Gansu province (poor in west China)</td>
<td>Stratified, cluster sample, Self-weighting</td>
<td>Household</td>
<td>100%</td>
<td>15,535</td>
</tr>
<tr>
<td>Heilongjiang</td>
<td>2003</td>
<td>Heilongjiang Health Household Interview Survey</td>
<td>Health bureau of Heilongjiang province (north-east China)</td>
<td>Stratified, cluster sample, Self-weighting</td>
<td>Household</td>
<td>100%</td>
<td>11,572</td>
<td></td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td>April–June 2002</td>
<td>Thematic Household Survey in the second quarter of 2002</td>
<td>Census and Statistics Department, Government of Hong Kong SAR</td>
<td>National</td>
<td>Stratified, Sample weights applied</td>
<td>Household (noninstitutional); individual (institutional)</td>
<td>78.4% (noninstitutional); 97.2% (institutional)</td>
<td>31,672</td>
</tr>
<tr>
<td>India</td>
<td>1995–96</td>
<td>National Sample Survey 32nd round</td>
<td>National Sample Survey Organisation</td>
<td>National</td>
<td>Stratified, cluster sample, Weights applied</td>
<td>Household</td>
<td>100%</td>
<td>629,024</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2001</td>
<td>Socioeconomic Survey (SUSENAS)</td>
<td>National Board of Statistics</td>
<td>National</td>
<td>Stratified, cluster sampling, Self-weighted</td>
<td>Household</td>
<td>98%</td>
<td>889,413</td>
</tr>
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</table>

(Continued)
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<thead>
<tr>
<th>Country</th>
<th>Survey year</th>
<th>Survey name</th>
<th>Institution conducting survey</th>
<th>Survey coverage</th>
<th>Survey design</th>
<th>Sampling unit</th>
<th>Response rate</th>
<th>Sample size individuals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>1996</td>
<td>National Health and Morbidity Survey II</td>
<td>Public Health Institute, Ministry of Health</td>
<td>National</td>
<td>Stratified, cluster sample, Weights applied</td>
<td>Household</td>
<td>86.90%</td>
<td>59,903</td>
</tr>
<tr>
<td>Nepal</td>
<td>1995/96</td>
<td>Nepal Living Standards Survey</td>
<td>Central Bureau of Statistics (CBS)</td>
<td>National</td>
<td>Stratified, cluster sample, Weights applied</td>
<td>Household</td>
<td>96.60%</td>
<td>18,855</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1996/97</td>
<td>Consumer Finance Survey</td>
<td>Central Bank</td>
<td>Excluded Northern Province due to civil war</td>
<td>Stratified</td>
<td>Household</td>
<td>98%</td>
<td>399,28</td>
</tr>
<tr>
<td>Thailand</td>
<td>Jan–June 2002</td>
<td>Socioeconomic Survey</td>
<td>National Statistical Office General Statistical Office</td>
<td>National</td>
<td>Stratified</td>
<td>Household</td>
<td>80%</td>
<td>17,489</td>
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<tr>
<td>Country</td>
<td>Reference period</td>
<td>Measurement unit</td>
<td>Hospital care</td>
<td>Nonhospital care</td>
<td>Antenatal care</td>
<td>Comments</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>------------------</td>
<td>------------------</td>
<td>---------------</td>
<td>------------------</td>
<td>----------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bangladesh</td>
<td>last episode in previous 3 months</td>
<td>Number of days</td>
<td>Number of visits</td>
<td>last episode in previous 3 months</td>
<td>Number of visits</td>
<td>3 months</td>
<td>Care at satellite and community clinics also included but not child immunisation</td>
<td></td>
</tr>
<tr>
<td>Gansu and Heilongjiang (China)</td>
<td>12 months</td>
<td>Number of days</td>
<td>Number of visits</td>
<td>n.a.</td>
<td>Number of visits</td>
<td>2 weeks</td>
<td>n.a.</td>
<td>Data on hospital care only. Five levels of hospital are distinguished, the lowest of which are equivalent to polyclinics.</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td>12 months</td>
<td>Number of days</td>
<td>Number of visits</td>
<td>30 days</td>
<td>Number of visits</td>
<td>30 days</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>Indonesia</td>
<td>12 months</td>
<td>Number of days</td>
<td>Number of visits</td>
<td>2 weeks</td>
<td>any visits</td>
<td>2 weeks</td>
<td>any treatment period</td>
<td>2 weeks</td>
</tr>
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(Continued)
<table>
<thead>
<tr>
<th>Hospital care</th>
<th>Nonhospital care</th>
<th>Antenatal care</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatients</td>
<td>outpatients</td>
<td>Doctor visits</td>
<td>Polyclinic/health center</td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference period</td>
<td>12 months</td>
<td>2 weeks</td>
<td>n.a.</td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Number of admissions</td>
<td>Number of visits</td>
<td></td>
</tr>
<tr>
<td>Nepal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference period</td>
<td>30 days</td>
<td>n.a.</td>
<td>30 days</td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Number of visits</td>
<td></td>
<td>Number of visits</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference period</td>
<td>2 weeks</td>
<td>2 weeks</td>
<td>2 weeks</td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Any admission</td>
<td>Any visit</td>
<td>Any visit</td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference period</td>
<td>12 months</td>
<td>1 month</td>
<td>n.a.</td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Number of admissions</td>
<td>Number of visits</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reference period</td>
<td>12 months</td>
<td>4 weeks</td>
<td>n.a.</td>
</tr>
<tr>
<td>Measurement unit</td>
<td>Number of days</td>
<td>Number of visits</td>
<td></td>
</tr>
</tbody>
</table>

IP inpatient.
OP outpatient.
n.a. not applicable.
Table S3. Summary indices of incidence of the public healthcare subsidy

<table>
<thead>
<tr>
<th>Country</th>
<th>Hospital care</th>
<th></th>
<th></th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Inpatient</td>
<td>Outpatient</td>
<td>Non-hospital care</td>
<td>Total public subsidy</td>
</tr>
<tr>
<td><strong>Bangladesh</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration index</td>
<td>0.2325 (0.1154)</td>
<td>0.1356 (0.0360)</td>
<td>0.0474 (0.0838)</td>
<td>0.1588 (0.0609)</td>
<td></td>
</tr>
<tr>
<td>Kakwani index</td>
<td>−0.1338 (0.0909)</td>
<td>−0.2388 (0.0372)</td>
<td>−0.3358 (0.0692)</td>
<td>−0.2244 (0.0499)</td>
<td></td>
</tr>
<tr>
<td>Subsidy share</td>
<td>47.99%</td>
<td>25.33%</td>
<td>26.69%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Gansu (China)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration index</td>
<td>0.2442 (0.0509)</td>
<td>0.1199 (0.0373)</td>
<td>0.1199 (0.0373)</td>
<td>0.1970 (0.0365)</td>
<td></td>
</tr>
<tr>
<td>Kakwani index</td>
<td>−0.2286 (0.0439)</td>
<td>−0.3529 (0.0360)</td>
<td>−0.3529 (0.0360)</td>
<td>−0.2758 (0.0332)</td>
<td></td>
</tr>
<tr>
<td>Subsidy share</td>
<td>65.42%</td>
<td>34.58%</td>
<td>34.58%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Heilongjiang (China)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration index</td>
<td>0.03232 (0.0605)</td>
<td>0.2192 (0.0474)</td>
<td>0.2192 (0.0474)</td>
<td>0.2527 (0.0385)</td>
<td></td>
</tr>
<tr>
<td>Kakwani index</td>
<td>−0.1242 (0.0652)</td>
<td>−0.2281 (0.0510)</td>
<td>−0.2281 (0.0510)</td>
<td>−0.1946 (0.0424)</td>
<td></td>
</tr>
<tr>
<td>Subsidy share</td>
<td>60.09%</td>
<td>39.91%</td>
<td>39.91%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td><strong>Hong Kong SAR</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Concentration index</td>
<td>−0.3193 (0.0355)</td>
<td>−0.2762 (0.0264)</td>
<td>−0.2444 (0.0232)</td>
<td>−0.3104 (0.300)</td>
<td></td>
</tr>
<tr>
<td>Kakwani index</td>
<td>−0.6919 (0.0356)</td>
<td>−0.6491 (0.0265)</td>
<td>−0.6173 (0.0232)</td>
<td>−0.6831 (0.0301)</td>
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<tr>
<td>Subsidy share</td>
<td>82.47%</td>
<td>13.36%</td>
<td>4.17%</td>
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<tr>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Concentration index</td>
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<td>0.00296 (0.0211)</td>
<td>−0.1325 (0.0328)</td>
<td>0.2117 (0.0164)</td>
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<td>Kakwani index</td>
<td>0.0122 (0.01928)</td>
<td>−0.2476 (0.02113)</td>
<td>−0.3830 (0.03281)</td>
<td>−0.0390 (0.0165)</td>
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<td>Subsidy share</td>
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<td>9.62%</td>
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<td>Concentration index</td>
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<td>0.3891 (0.0186)</td>
<td>−0.0078 (0.0045)</td>
<td>0.1822 (0.0081)</td>
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<td>Kakwani index</td>
<td>0.1752 (0.0248)</td>
<td>0.0880 (0.0187)</td>
<td>−0.3142 (0.0047)</td>
<td>−0.1245 (0.0080)</td>
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<td>Subsidy share</td>
<td>26.54%</td>
<td>14.86%</td>
<td>58.59%</td>
<td>100%</td>
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<tr>
<td>Concentration index</td>
<td>−0.0416 (0.0124)</td>
<td>−0.0165 (0.0231)</td>
<td>−0.2410 (0.0181)</td>
<td>−0.0807 (0.0116)</td>
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<tr>
<td>Kakwani index</td>
<td>−0.4100 (0.0131)</td>
<td>−0.3863 (0.0235)</td>
<td>−0.3863 (0.0235)</td>
<td>−0.4493 (0.0123)</td>
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<th>Country</th>
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<th>Total public subsidy</th>
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<td></td>
<td>Inpatient</td>
<td>Outpatient</td>
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<td>Nepal</td>
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<td>38.53%</td>
<td>24.45%</td>
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<tr>
<td>Subsidy share</td>
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<td>24.45%</td>
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<tr>
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<td>Kakwani index</td>
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<td>0.1268 (0.0605)</td>
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<td>54.58%</td>
<td>45.24%</td>
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<tr>
<td>Sri Lanka</td>
<td>-0.3313 (0.0252)</td>
<td>-0.4042 (0.0172)</td>
<td>-0.4042 (0.0172)</td>
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<td>-0.0486 (0.0304)</td>
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<tr>
<td>Kakwani index</td>
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<td>-0.4042 (0.0172)</td>
<td>-0.4042 (0.0172)</td>
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<tr>
<td>Subsidy share</td>
<td>68.00%</td>
<td>32.00%</td>
<td>32.00%</td>
</tr>
<tr>
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<td>-0.0242 (0.0308)</td>
<td>-0.0392 (0.0227)</td>
<td>-0.2506 (0.0325)</td>
</tr>
<tr>
<td>Concentration index</td>
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<td>-0.4348 (0.0242)</td>
<td>-0.6463 (0.0335)</td>
</tr>
<tr>
<td>Kakwani index</td>
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<td>-0.4348 (0.0242)</td>
<td>-0.6463 (0.0335)</td>
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<tr>
<td>Subsidy share</td>
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<td>45.16%</td>
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<td>0.0354 (0.0359)</td>
<td>0.1672 (0.0349)</td>
<td>-0.1065 (0.0272)</td>
</tr>
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<td>Concentration index</td>
<td>-0.1495 (0.0471)</td>
<td>-0.0599 (0.0667)</td>
<td>-0.4623</td>
</tr>
<tr>
<td>Kakwani index</td>
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<td>-0.0599 (0.0667)</td>
<td>-0.4623</td>
</tr>
<tr>
<td>Subsidy share</td>
<td>86.88%</td>
<td>2.13%</td>
<td>10.98%</td>
</tr>
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</table>

Robust standard errors in parentheses.

Source: Authors' calculations from data documented in table S-1.
**Table S4. Cross-country Dominance of Public Health Subsidy Concentration Curves**

<table>
<thead>
<tr>
<th>Total subsidy</th>
<th>Malaysia</th>
<th>Thailand</th>
<th>Sri Lanka</th>
<th>Vietnam</th>
<th>Bangladesh</th>
<th>Indonesia</th>
<th>Gansu</th>
<th>India</th>
<th>Heilongjiang</th>
<th>Nepal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong Kong SAR</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
<td>D</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
</tr>
<tr>
<td>Malaysia</td>
<td>n.s.</td>
<td>n.s.</td>
<td>D</td>
<td>D</td>
<td>D*</td>
<td>D</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
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<td>n.s.</td>
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<td>D</td>
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<td>D</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
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<td>D</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
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<td>n.s.</td>
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</tr>
<tr>
<td>Gansu (China)</td>
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<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
<td>n.s.</td>
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<tr>
<td>Heilongjiang (China)</td>
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<th>Vietnam</th>
<th>Bangladesh</th>
<th>Gansu</th>
<th>India</th>
<th>Heilongjiang</th>
<th>Nepal</th>
<th>Indonesia</th>
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<td>D*</td>
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<td>D*</td>
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<td>D*</td>
<td>D*</td>
<td>D*</td>
<td>D*</td>
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<tr>
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<td>D*</td>
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<td>D*</td>
<td>D*</td>
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<tr>
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<tr>
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<th>India</th>
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<th>Bangladesh</th>
<th>Vietnam</th>
<th>Heilongjiang</th>
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<th>Vietnam</th>
<th>Bangladesh</th>
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<th>Gansu</th>
<th>India</th>
<th>Heilongjiang</th>
<th>Nepal</th>
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<tr>
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<tr>
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<td>D</td>
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<tr>
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<td>D*</td>
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<td>Heilongjiang (China)</td>
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</tr>
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<td>Non-hospital subsidy</td>
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<td>Vietnam</td>
<td>Indonesia</td>
<td>Bangladesh</td>
<td>Nepal</td>
<td></td>
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</tr>
<tr>
<td>Thailand</td>
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<td>D</td>
<td>D</td>
<td>D*</td>
<td>D</td>
<td>D</td>
<td>D*</td>
<td>n.s.</td>
<td>D*</td>
</tr>
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<td>D</td>
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<td>D</td>
<td>D*</td>
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<td>D*</td>
<td>n.s.</td>
<td>D*</td>
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<td>n.s.</td>
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<td>D</td>
<td>D</td>
<td>D*</td>
<td>n.s.</td>
<td>D*</td>
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<tr>
<td>Vietnam</td>
<td>D</td>
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<td>D</td>
<td>D</td>
<td>D*</td>
<td>n.s.</td>
<td>D*</td>
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<tr>
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<td>n.s.</td>
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<td>D*</td>
<td>D</td>
<td>D</td>
<td>D*</td>
<td>n.s.</td>
<td>D*</td>
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<tr>
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<td>n.s.</td>
<td>n.s.</td>
<td>D*</td>
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<td>D*</td>
<td>D</td>
<td>D*</td>
<td>n.s.</td>
<td>D*</td>
</tr>
</tbody>
</table>

**Note:** Countries/provinces are ranked from most to least pro-poor according to values of concentration indices.

Tests follow the multiple comparison approach with the null hypothesis defined as curves being indistinguishable. n.s. indicates failure to reject the null at 5% significance.

D indicates that the subsidy concentration curve of the row country/province dominates (is more pro-poor) than that of the column country/province.

There are no cases of crossing concentration curves.

*indicates that the intersection union principle test rejects the (different) null of nondominance against the alternative of strict dominance at 5%. If no * appears, then this test does not reject its null.

comparison with Nepal are for the aggregate of inpatient and outpatient subsidies.
### Table S5. National Income and Government Expenditure on Health

<table>
<thead>
<tr>
<th>Territory</th>
<th>Year</th>
<th>GDP per capita, PPP $^b$</th>
<th>General government expenditure on health as % GDP$^c$</th>
<th>General government expenditure on health per capital, PPP $</th>
<th>General government expenditure on health as % total expenditure on health</th>
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<td>1495</td>
<td>0.98</td>
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<td>2002</td>
<td>4568</td>
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<td>Gansu (China)</td>
<td>2002</td>
<td>2661</td>
<td>2.38</td>
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</tr>
<tr>
<td>Heilongjiang (China)</td>
<td>2002</td>
<td>5434</td>
<td>1.48</td>
<td>80</td>
<td>36</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td>2001/02</td>
<td>26049</td>
<td>3.26</td>
<td>849</td>
<td>57</td>
</tr>
<tr>
<td>India</td>
<td>1996</td>
<td>1994</td>
<td>0.81</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2001</td>
<td>3146</td>
<td>0.57</td>
<td>18</td>
<td>36</td>
</tr>
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<td>Malaysia</td>
<td>1996</td>
<td>8254</td>
<td>1.34</td>
<td>111</td>
<td>58</td>
</tr>
<tr>
<td>Nepal</td>
<td>1995/96</td>
<td>1179</td>
<td>1.20</td>
<td>14</td>
<td>24</td>
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<tr>
<td>Sri Lanka</td>
<td>1996/97</td>
<td>2951</td>
<td>1.63</td>
<td>48</td>
<td>50</td>
</tr>
<tr>
<td>Thailand</td>
<td>2000</td>
<td>6740</td>
<td>2.04</td>
<td>138</td>
<td>61</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1998</td>
<td>1854</td>
<td>1.44</td>
<td>27</td>
<td>33</td>
</tr>
</tbody>
</table>

$^a$ Year of survey used for distributional analysis.

$^b$ GDP per capita in international $ using purchasing power parity (PPP) exchange rates. Constant year 2000 prices.

$^c$ General government expenditure on health including social insurance.

<table>
<thead>
<tr>
<th>Country</th>
<th>Charged services</th>
<th>Free Services</th>
<th>Income/poverty related fee waivers</th>
<th>Nonpoor groups exempt from charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>Secondary services (nominal registration fee for inpatient/outpatient); Inpatient care in major hospitals</td>
<td>Most primary care (or local services); medicines within facility; immunization; some reproductive healthcare</td>
<td>Poor exempt or pay lower charge</td>
<td>Civil servants (selected services)</td>
</tr>
<tr>
<td>China</td>
<td>Inpatient (including medicines); Outpatient (including medicines); Immunisation</td>
<td>Family planning</td>
<td>None</td>
<td>Old Red Army soldiers and Retirees</td>
</tr>
<tr>
<td>Hong Kong SAR</td>
<td>Inpatient (including medicines); outpatient (including medicines); dental</td>
<td>Accident and emergency (until December 2002)</td>
<td>Welfare recipients exempt</td>
<td>Civil servants and dependents (reduced rate for Inpatients); hospital staff and dependents</td>
</tr>
<tr>
<td>India</td>
<td>Inpatient bed charge; outpatient registration charge; certain medicines; tests/x-rays; dental</td>
<td>Hospital consultation and certain medicines. Primary care/health center/polyclinic consultation and medicines. Family planning, Vaccinations and immunizations</td>
<td>None formally. Indirect relation to income through price differentiation in inpatient care. Informally, “poor” can be exempted partially or fully from charges</td>
<td>Civil servants</td>
</tr>
<tr>
<td>Indonesia</td>
<td>All medical care and medicines</td>
<td>None</td>
<td>Poor exempt from all charges. Indirect relation of inpatient charges to income through price discrimination</td>
<td>Charges determined at local government level. Some better off local govs. Provide free health centre care</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Hospital inpatient and outpatient. Primary care. Dental care. Diagnostics and x-rays</td>
<td>Family planning and vaccinations/immunizations. Outpatient ante and postnatal care. Treatment of infectious diseases on third class wards. Dental care for pregnant women and pre school children</td>
<td>Hospital directors have discretion to waive fees for destitute. Upper limit on charges for third class ward patients</td>
<td>Infants less than 1 year (outpatient). State rulers, Governors and families. Civil servants (including retired) and dependents. Local authority employees and dependents</td>
</tr>
<tr>
<td>Country</td>
<td>Coverage and Charges</td>
<td>User Fees Exemptions/Discounts</td>
<td>Subsidies/Reduced Charges</td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>----------------------------</td>
<td></td>
</tr>
<tr>
<td>Nepal</td>
<td>All medical care and medicines. Nominal charge for outpatient varying with facility.</td>
<td>Poor either exempt or pay reduced charge but not fully implemented.</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>Family planning services. Patients occasionally asked to buy medicines/supplies from private retailers when out of stock at facility.</td>
<td>No official exemptions, but limited survey evidence suggests that facility staff tend to avoid asking the poorest patients to self-purchase medicines and supplies, or ration available stocks to them.</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>All medical care and medicines. After Oct 2001, fixed fee (30 Baht) UC scheme means very minimal co-payment.</td>
<td>Poor exempted from user fees and co-payments. Informally, those “unable to pay” are exempted.</td>
<td>children &lt;12; elderly &gt;60; public health volunteers; monks.</td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td>Fees for most services introduced in 1989. Medicines rarely provided free of charge.</td>
<td>Fee exemptions for individuals who have certification of indigency from neighbourhood or village People’s Committee.</td>
<td>Families of health personnel, certain classes of patients (like handicapped, TB, orphans).</td>
<td></td>
</tr>
</tbody>
</table>
References


