Removal of user fees no guarantee of universal health coverage: observations from Burkina Faso

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Abstract In theory, the removal of user fees puts health services within reach of everyone, including the very poor. When Burkina Faso adopted the DOTS strategy for the control of tuberculosis, the intention was to provide free tuberculosis care. In 2007–2008, interviews were used to collect information from 242 smear-positive patients with pulmonary tuberculosis who were enrolled in the national tuberculosis control programme in six rural districts. The median direct costs associated with tuberculosis were estimated at 101 United States dollars (US$) per patient. These costs represented 23% of the mean annual income of a patient’s household. During the course of their care, three-quarters of the interviewed patients apparently faced “catastrophic” health expenditure. Inadequacies in the health system and policies appeared to be responsible for nearly half of the direct costs (US$ 45 per patient). Although the households of patients developed coping strategies, these had far-reaching, adverse effects on the quality of lives of the households’ members and the socioeconomic stability of the households. Each tuberculosis patient lost a median of 45 days of work as a result of the illness. For a population living on or below the poverty line, every failure in health-care delivery increases the risk of “catastrophic” health expenditure, exacerbates socioeconomic inequalities, and reduces the probability of adequate treatment and cure. In Burkina Faso, a policy of “free” care for tuberculosis patients has not met with complete success. These observations should help define post-2015 global strategies for tuberculosis care, prevention and control.

Introduction

Every year since the adoption of the United Nations Millennium Development Goals (MDGs) in 2000, tens of billions of United States dollars (US$) have been spent on attempts to improve health systems in developing countries. Over recent years, increasing numbers of the key players in global health have recognized that, in such attempts, universal health coverage is an absolute priority. The attainment of universal coverage was one of the main recommendations resulting from the Prince Mahidol Award Conference that was held in Bangkok, Thailand, on 24–28 January 2012. The participants at this conference argued that free health care was vital in attempts to improve maternal and child health and combat problems such as human immunodeficiency virus infection, malaria and tuberculosis. In the poorer countries of the world, where most people live on less than US$ 2 per day and expenditure on health care can plunge patients and their families into extreme poverty, the removal of user fees for health is seen as a matter of real urgency. Unfortunately, this is unlikely to be enough to ensure truly universal coverage. Even when medicines and medical examinations are available for free, patients must often still bear the costs of any associated travel, consultations and, sometimes, “under-the-table” payments. Patients are also exposed to indirect costs, such as loss of working days through treatments, lay-offs and even dismissal by employers, and the intangible costs related to the social stigma associated with their illness, potential breakdown of the family unit and/or the coping strategies developed by households faced with illness and health-related expenditure. As seen in a recent study in Burkina Faso, much of the expenditure faced by patients in the absence of user fees can often be directly linked to health service failures.

Case study

In 2007–2008, a detailed study of the costs that have to be paid by patients with pulmonary tuberculosis was conducted in Burkina Faso as part of a larger research project. Over a period of 12 months, all 242 patients with smear-positive pulmonary tuberculosis from six rural districts who enrolled in the national tuberculosis control programme (and were, therefore, treated using the DOTS strategy) were interviewed by trained investigators. At the time of the study, the combined population of the six study districts (Bousse, Koupela, Ouargaye, Zabrè, Ziniare and Zorgbo) was about 1.5 million. We were able to estimate the direct and indirect costs associated with tuberculosis for 229 (95%) of the eligible patients; although all 242 eligible patients agreed to be interviewed, 13 were excluded from the final analysis because of incoherent or incomplete information.

Each interview lasted for a mean of 3 hours. To ensure the quality and the precision of the data collected, each patient was questioned in his or her own language by two of the investigators. The questions covered an exhaustive list of the expenses that might be incurred by tuberculosis patients and were also intended to quantify the incomes and assets of the patients and their households (Appendix A, available at: https://dl.dropbox.com/u/63347818/BLT-2012-110015/Appendix%20A.htm). The annual income of each patient’s household was estimated from the mean monthly income reported for the 3 months immediately preceding the patient’s diagnosis.

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Policy & practice

The assessment of the economic burden associated with tuberculosis was based on a socioeconomic approach that encompassed several dimensions and included investigation of the direct and indirect costs borne by each patient's household, including those associated with any coping strategies. The investigated direct costs included the medical "out-of-pocket" expenses (e.g. the charges made for examinations, laboratory tests, drugs and hospital care, and consultation fees) and the non-medical "out-of-pocket" expenses (e.g. the costs of travel, services provided by traditional healers and any food supplements) related to the tuberculosis-care pathway. Indirect costs were estimated from (i) the work time lost by each patient while seeking tuberculosis care; (ii) the number of workdays lost by each patient and any of his or her household members as a result of treatment; (iii) the patient's inability to work because of his or her tuberculosis; (iv) the costs of any tuberculosis-associated social stigma (i.e. adverse changes in each patient's social or professional status or any other form of discrimination); (v) the costs of repaying any tuberculosis-associated social debt (i.e. services rendered by each patient to his or her household and community in compensation for the support given to the patient); (vi) and the costs of any tuberculosis-related coping strategies followed by each patient's household (e.g. the use of savings, decreases in consumption, sales of goods and services and loans received).

The total costs associated with the entire care pathway, from onset of symptoms to end of treatment, were estimated for each patient and categorized as "catastrophic" health expenditures if, for the household of the patient involved, they represented at least 10% of its annual income. To be considered catastrophic, health expenditure must represent an excessive burden relative to the income of a patient or his or her household. The World Health Organization has suggested that, although the exact definition may vary with the country and local economy involved, health expenditures may generally be considered catastrophic if they exceed 40% of the patient's household's capacity to pay (i.e. 40% of the household's annual disposable income). The alternative threshold used in the present study (10% of the total annual income of the patient's household) was chosen as a better reflection of the financial pressures that may exist in low-income households in rural communities. In the present study, we systematically explored those medical and non-medical out-of-pocket expenses that resulted from apparent failures to follow the national policy for tuberculosis care. These failures included policy gaps resulting in extra services that were justified but not covered by the free-of-charge strategy, and health-system inadequacies that led to unjustified services, poor patient management and poor health-care delivery.

The cost of “free” tuberculosis care

According to national policy, the free "tuberculosis package" in Burkina Faso includes diagnosis (based on three examinations by sputum smear microscopy), antituberculosis drugs and repeat smear to determine treatment outcome. Despite this, only 2% of the patients interviewed during the present study reported that they had received completely free tuberculosis care. The median direct costs of the tuberculosis care, which were estimated for the 229 patients included in the final analysis, amounted to US$101 per patient. These costs were equivalent to 23% of the estimated mean annual income of a patient's household and therefore fell well above the 10% threshold set for "catastrophic" health expenditure. In fact, it appeared that the households of 172 (75%) of the patients included in the final analysis had to bear catastrophic health expenditures. Even when more conservative thresholds for catastrophic health expenditure were applied – 15% or 25% of annual household income – many of the households of tuberculosis patients (66% and 48%, respectively) still appeared to have been faced with tuberculosis-related expenditures that were categorized as catastrophic. We therefore conclude that, in rural districts of Burkina Faso, the risk of catastrophic health expenditure associated with tuberculosis is high, even in the context of a "free" package of tuberculosis care.

Impact of inefficient patient management

Inefficient patient management appeared to be a major cause of the catastrophic health expenditure that was frequently associated with tuberculosis care. From diagnosis to cure, the median direct costs attributed to health system inadequacies or policy gaps totalled US$45 per patient: nearly half of the median out-of-pocket expenditure. Health service failures were particularly common during the early phase of the tuberculosis care pathway, in which the tuberculosis is diagnosed. The national policy prescribes four consultations with public health-care providers to establish a diagnosis of tuberculosis. The costs of the first contact (before referral to the relevant centre for the microscopic detection of tuberculosis) should be charged to the patient, and the next three contacts (each involving sputum collection and examination) should be free. In the present study, however, 39% of the patients had been charged between the first contact and the end of diagnosis for sputum examinations, chest X-rays, other examinations or hospitalization (Table 1). In addition, the median direct costs incurred during this period of diagnosis, which amounted to US$8 per patient, had to be paid within a fairly short period of time.

Beyond these direct costs are non-medical costs, such as those associated with travel, which seem to have been raised by prolonged diagnostic periods (a third of the patients needed over 1 week to complete three sputum examinations) and by requests to attend more than the four pre-treatment consultations recommended in the national policy (reported by nearly one fifth of the patients, with some patients being asked to attend 11 consultations before their tuberculosis treatment began). Slow diagnosis not only adds to patient expenses but also increases the risk of pre-treatment transmission.

To deal with the often high costs of tuberculosis and tuberculosis care, the members of the households of tuberculosis patients must resort to coping strategies that have far-reaching effects on their quality of life and on the economic and social stability of the households. Households that are directly affected by tuberculosis must often spend savings, sell capital goods and household assets, take out loans and incur debt in their communities. The indirect costs of tuberculosis are often extremely high. For example, of the 229 patients included in the final analysis in the present study, 107 (46.7%) had had to stop working, 102 (44.6%) had incurred social debts and 135 (59.0%) had had to sell cattle, seeds for the following year's sowing or even some of their land.
Most (63.0%) of the patients had had to take loans from family or community members and 39 (17.0%) reported that they had suffered some form of social stigma (e.g. a forced change of employment, family breakdown or social rejection) as a result of their tuberculosis. Of the 46 patients’ households that had had monetary savings when the tuberculosis was diagnosed, 23 (50.0%) had spent all of it on coping with the tuberculosis. The median work time lost by the tuberculosis patients, as a result of their illness diagnosis, 23 (50.0%) had spent all of it on coping with the tuberculosis. The median work time lost by the tuberculosis patients, as a result of their illness and its treatment, was 45 days (IQR: 10–109 days).

For the people who live in the study districts, many of whom live below the "poverty line", every health policy or health system failure increases the risk of catastrophic health expenditure, exacerbates socioeconomic inequalities and reduces the chances of being cured. Such failures explain why, despite the adoption of international recommendations for tuberculosis control and despite progress in some areas, the rates of tuberculosis case detection and successful treatment generally remain lower than envisaged in the MDGs. The identification of such failures and effective methods for their elimination are now research priorities.

**Study limitations**

The present study has several limitations. The study covered all of the new, treatment-seeking cases of pulmonary tuberculosis that occurred over a 12-month period in six rural districts. Although this approach avoided selection bias, it also focused on communities that were particularly vulnerable to catastrophic health expenditure. The data should not be considered representative of the whole of Burkina Faso (because none was collected from urban districts) or even of rural areas of the country (because such areas may vary widely in access to health care, road quality and other factors). A second limitation is that annual household income was estimated from mean monthly incomes for a short period immediately preceding the diagnostic phase, as reported by the patients. It was hoped that the patients’ recall of recent monthly expenditures would be good, but our estimates of annual incomes are only likely to be rough approximations of the true values. A third limitation is that recall errors may have led to the incorrect attribution of some health spending to tuberculosis treatment and control. The extensive interviews, which involved a pair of investigators working as interviewees and asking questions in each interviewee's native language, were designed to maximize the accuracy of the data collected.

Fourth, any expenditure incurred by patients on procedures that were not covered by the national policy for tuberculosis care was considered avoidable or unnecessary. For example, as the policy does not recommend chest X-rays for smear-positive tuberculosis patients, any charges incurred by such patients for chest radiography were considered avoidable. However, the possibility remains that chest radiography or other "unnecessary" procedures were justifiable for some of the tuberculosis cases investigated in the present study. Finally, the present estimates of the frequency of catastrophic health expenditure will be lower than the true values because they are based on two assumptions: that each household affected by tuberculosis only had one ill member and that the ill person only had tuberculosis. The use of a relatively low threshold for catastrophic health expenditure was an attempt to compensate for our failure to assess health expenditures associated with illnesses other than tuberculosis.

**Policy implications**

At least in the districts investigated in the present study, the costs incurred by tuberculosis cases in 2007–2008 often included those of repeated investigations and procedures that fell outside the package of tuberculosis care recommended and supported by national policy. It appears that in Burkina Faso, as in other countries, health-care providers may be finding largely unjustified ways of generating revenue from tuberculosis patients. Concrete and coordinated solutions to the problems revealed in this study, that political decision-makers, managers of health programmes and health services could rapidly apply, need to be developed as soon as possible. Decentralization of tuberculosis diagnosis and case management could reduce travel and other indirect costs, and early case detection might be improved by the strengthening of community care. The skills of health-care providers need to be supplemented, with emphasis on the socioeconomic and cultural aspects of health and on "patient-centred" care.

Similarly, tuberculosis patients need to be empowered, via psychosocial support, the exchange of experience with former patients and innovative mechanisms to support the patients’ ability to pay. Equity in health care needs further promotion, with increased support for the poorest households. Programmes of “free” tuberculosis care must include regular and ongoing, local social and economic evaluations to solve policy gaps, prevent health-system failures and the shifting of cost burdens onto the patients, meet the needs of vulnerable populations and ensure programme efficiency.

To conclude, we call for the effective and free distribution of tuberculosis services in Burkina Faso, with increased financial support for any medically justified examinations or tests that fall outside the national policy for tuberculosis care, particularly for the poorest households that, otherwise, face catastrophic health expenditures.
Lessons for health policies globally

The failures identified in the national strategy for tuberculosis care in Burkina Faso are no doubt identical to those that occur in many other health programmes in Burkina Faso and many other developing countries. Feedback mechanisms need to be set up to evaluate the financial reality of health care that is meant to be free to patients. International strategies for health care should not be applied in any country without an appreciation of, and adjustment for, the national situation. Any approach to the implementation and evaluation of a national programme for the control of a disease needs to be contextually sensitive and data-driven. To ensure that new policies are both effective and sustainable, it is essential not only to have a clear understanding of the demand but also to identify possible policy gaps or failures in service provision.

The comprehensive process of socioeconomic evaluation used in the present study should inspire researchers, planners and managers of national programmes who wish to establish mechanisms for the on-going improvement of health service provision. Since we are only a few years away from 2015 – the deadline set for the MDGs – the resolution of the problems caused by policy gaps and health-service failures is a matter of priority, for Burkina Faso and many other countries.

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La suppression des frais d’utilisation n’est pas une garantie de couverture de santé universelle: observations au Burkina Faso

En théorie, la suppression des frais d’utilisation des services de santé met ces derniers à la portée de tous, y compris des plus pauvres. Lorsque le Burkina Faso a adopté la stratégie DOTS de lutte contre la tuberculose, son intention était de fournir un traitement gratuit contre la tuberculose. En 2007-2008, on a recouru à des entretiens pour recueillir des informations auprès de 242 patients à frottis positifs, atteints de tuberculose pulmonaire et inscrits dans le programme national de lutte antituberculeuse, dans six districts ruraux. Le coût médian direct associé à la tuberculose était estimé à 101 dollars des États-Unis (US$) par patient. Ces coûts représentaient 23% du revenu annuel moyen des familles concernées.

Résumé

En théorie, la suppression des frais d’utilisation des services de santé met ces derniers à la portée de tous, y compris des plus pauvres. Cependant, en pratique, les coûts de santé restent un frein majeur pour les populations les plus vulnérables. Ainsi, malgré la mise en place de la stratégie DOTS (Directly Observed Treatment, Short-course) pour lutter contre la tuberculose, des coûts directs et indirects liés à la maladie sont toujours une épine dans le pied des familles touchées. Ces coûts, qui incluent les frais de déplacement, l’absentéisme du travail et les coûts liés à la perte de productivité, peuvent être très lourds, particulièrement pour les familles à faible revenu. Le recours à l’aide financière externe est donc souvent nécessaire, mais peut également entraîner des dépendances à long terme.

En conclusion, la suppression des frais d’utilisation de services de santé n’est pas une garantie de couverture de santé universelle. Les politiques doivent être conçues de manière à garantir un accès équitable à la santé pour tous, en tenant compte des réalités économiques et sociales spécifiques de chaque pays et de chaque population.

Резюме
Отмена взносов пациентов не гарантирует всеобщей доступности медицинского обеспечения: наблюдения в ситуации в Буркина-Фасо

Отмена платы пациентов теоретически должна способствовать обеспечению обездоленности системы здравоохранения, в том числе для малоимущих слоев населения. После принятия стратегии DOTS по контролю туберкулеза в Буркино-Фасо, его целью было предоставление бесплатного лечения туберкулеза. В 2007-2008 гг. для сбора информации был проведен опрос 242 пациентов, больных туберкулезом легких, имевших положительный результат мазка мокроты, которые были зачислены в национальную программу контроля туберкулеза в шести сельских районах. Средние прямые затраты, связанные с туберкулезом, оценивались в 101 доллар США на пациента. Эти расходы составляют 23% от среднего годового дохода семьи больного. Во время курса лечения, три четверти опрошенных пациентов очевидно сталкивались с чрезвычайно высокими расходами на медицинское обслуживание. Несостоятельность системы здравоохранения и стратегий в области здравоохранения по-видимому являются причиной почти половины прямых расходов (45 долларов США на пациента). Несмотря на то, что семьи пациентов преодолевали трудности, они имели далеко идущие негативные последствия на качество жизни членов семей и социально-экономическую стабильность домохозяйств. Вследствие болезни каждый больной туберкулезом потерял в среднем 45 рабочих дней. Для населения, живущего на грани нищеты или за чертой бедности, недостаточное медицинское обслуживание повышает риск чрезвычайно высоких расходов на здравоохранение, обостряет социально-экономическое неравенство, и уменьшает вероятность правильного лечения и ухода. В Буркина-Фасо стратегия “бесплатной” медицинской помощи для больных туберкулезом не достигла полного успеха. Эти наблюдения должны способствовать определению глобальных стратегий на период после 2015 года по лечению, профилактике и контролю туберкулеза.

Resumen
La eliminación de las tarifas a los usuarios no garantiza la cobertura sanitaria universal: observaciones desde Burkina Faso

En teoría, la eliminación de las tarifas a los usuarios pone los servicios sanitarios al alcance de todos, incluidas las personas muy pobres. Cuando Burkina Faso adoptó la estrategia DOTS para el control de la tuberculosis, la intención era brindar atención sanitaria gratuita contra esta enfermedad. En los años 2007 y 2008, se emplearon entrevistas para recoger información de 242 pacientes bacilíferos de tuberculosis pulmonar que se inscribieron en el programa nacional para el control de la tuberculosis en seis distritos rurales. Se calculó que los costes directos medios asociados con la tuberculosis ascendieron a 101 dólares estadounidenses (US$) por paciente. Estos costes representaron el 23% de los ingresos anuales medios en el hogar del paciente. Al parecer, tres cuartas partes de los pacientes entrevistados tuvieron que hacer frente a gastos sanitarios «catastróficos» durante el transcurso de la atención sanitaria. Las deficiencias en el sistema y las políticas sanitarias parecen ser responsables de casi la mitad de todos los costes directos (45 US$ por paciente). Aunque los hogares de los pacientes desarrollaron estrategias de supervivencia, éstas tuvieron efectos adversos de largo alcance en la calidad de vida de los miembros del hogar, así como en la estabilidad socioeconómica del mismo. Cada paciente de tuberculosis se ausentó de su trabajo una media de 45 días como consecuencia de la enfermedad. Para una población que vive por debajo del límite de la pobreza, cualquier fallo en la prestación de servicios sanitarios aumenta el riesgo de tener que hacer frente a gastos sanitarios «catastróficos», agrava las desigualdades socioeconómicas y reduce la probabilidad de recibir un tratamiento apropiado y recuperarse. En Burkina Faso, la estrategia de atención sanitaria «gratuita» para los pacientes con tuberculosis no ha tenido un éxito absoluto. Las presentes observaciones deberían ayudar a definir las estrategias globales a partir del año 2015 para la atención sanitaria, la prevención y el control de la tuberculosis.

References
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