Fees-for-services, cost recovery, and equity in a district of Burkina Faso operating the Bamako Initiative
Valéry Ridde

Objective To gauge the effects of operating the Bamako Initiative in Kongoussi district, Burkina Faso. Methods Qualitative and quasi-experimental quantitative methodologies were used. Findings Following the introduction of fees-for-services in July 1997, the number of consultations for curative care fell over a period of three years by an average of 15.4% at “case” health centres but increased by 30.5% at “control” health centres. Moreover, although the operational results for essential drugs depots were not known, expenditure increased on average 2.7 times more than income and did not keep pace with the decline in the utilization of services. Persons in charge of the management committees had difficulties in releasing funds to ensure access to care for the poor. Conclusion The introduction of fees-for-services had an adverse effect on service utilization. The study district is in a position to bear the financial cost of taking care of the poor and the community is able to identify such people. Incentives must be introduced by the state and be swiftly applied so that the communities agree to a more equitable system and thereby allow access to care for those excluded from services because they are unable to pay.

Keywords Fee-for-service plans; Health services accessibility/economics; Health services/economics; Primary health care; Essential drugs/economics; Drugs, Generic/economics; Operations research; Burkina Faso (source: MeSH, NLM).

Mots clés Plan remboursement a` l’acte; Accessibilite´ service sante´/e´ conomie; Services sante´/e´ conomie; Programme soins courants; Medica´ments essentiels/e´conomie; Produits generi`ques/e´conomie; Recherche operationnelle; Burkina Faso (source: MeSH, INSERM).

Palabras clave Planes de aranceles por servicios; Accesibilidad a los servicios de salud/economı ´a; Servicios de salud/economı ´a; Atenci´on primaria de salud; Medicamentos esenciales/economı ´a; Medicamentos genericos/economı ´a; Investigaci´on operativa; Burkina Faso (fuente: DeCS, BIREME).

Introduction In the early 1980s, community-based funding was one of the mechanisms used to implement the policy of primary health care. Following the health reforms of the 1980s, however, the most notable change was the introduction and expansion of systems of payment of user fees (1), with sub-Saharan Africa being the area where they were probably most widely introduced (2). The economic problems facing African countries in the 1980s had adverse consequences for the health of their populations and these countries experienced difficulty in implementing the policy of primary health care. In 1987, WHO and UNICEF therefore drew up a proposal to launch this policy and to reduce infant and maternal mortality. This proposal, called the Bamako Initiative, was adopted in 1988 by Health Ministers of the WHO African Region. The initiative differs from the national policy of user fees, whose main objective is to generate income (3), in that its introduction should improve the quality of service and ensure equity in access to care. In practical terms the initiative may be described as follows. A stock of essential generic drugs is provided by donors to the dispensary management committee (composed of representatives of the population). The drugs must then be sold to users at a profit. This profit, in addition to payments by users for consultations (direct payment = user fees), serves to buy back the initial stock of drugs, and to improve access to care and quality of service (staff incentives, building repairs, etc).

Opinion remains divided on the impact of the introduction of user fees on the accessibility of services, particularly among the very poor (4), and it has been the subject of much debate for more than 15 years. However, there can be no doubt that user fees are a financial barrier for poor people who wish to use health services (5). Studies in Ghana, Kenya, Lesotho, Uganda and Zambia (5–8) show that introduction of user fees reduced service utilization, a finding that is also borne out by the cross-sectional survey conducted by the World Bank in 37 countries of sub-Saharan Africa (9). One of the few longitudinal studies, carried out in Zaire, showed a 40% decrease in service utilization for the period 1987–91, of which 18–32% was due to the cost of services (10).
To date, there have been only two reports that introduction of fees-for-services had a positive impact on service utilization. The first, in Cameroon (11), showed that with an improvement in the quality of care, introduction of such fees went hand-in-hand with an increase in service utilization, with the increase being proportionally larger for the poor rather than the rich. The second study, conducted in Niger, showed that establishment of a user fee system (local tax + low patient contribution), accompanied by measures to improve quality (medicines) and exemptions (with a proper definition of the sector of the population concerned), increased attendance at a health centre by poor people (12). Commentaries on these reports (1, 13) express doubt whether the projects concerned can be repeated and applied elsewhere, particularly since they benefited from outside specialized technical assistance, not to mention considerable external funding. However, agreement with this assessment is not unanimous, particularly among individuals in favour of a direct financial contribution by users of health care service.

It is estimated that 5–30% of the population of sub-Saharan African countries is still unable to pay for health care and as a result does not have access to it (14, 15). Furthermore, thinking on the subject has changed since the 1980s. There is no longer any talk of recovering the cost of essential drugs to ensure their accessibility, as James Grant, the Executive Director of UNICEF had in mind in 1987 when he announced the Bamako Initiative (16), but rather of sharing operating costs, which goes much further and entails a far heavier financial burden for the community.

It was against this general backdrop that the present study was undertaken in Kongoussi district, Burkina Faso. The initial objective was to assess the feasibility of providing health care for the poor by exempting them from user fees in a district implementing the Bamako Initiative. The results have been reported in detail elsewhere (16) and this paper deals only with the effects on equitable access to care of establishing fees for service utilization and the financial reports of essential drugs.

Materials and methods

Context of the study

Burkina Faso launched the Bamako Initiative in 1993 by adopting a national strategy to strengthen primary health care (17), organizing the health system into districts, and setting up a national purchasing office for generic essential drugs. In 1996, when the health districts had already been in place for three years, an additional level was added to the health pyramid: the health districts when the health districts had already been in place for three years, an additional level was added to the health pyramid: the health districts (18). The initial objective was to assess the feasibility of providing health care for the poor by exempting them from user fees in a district implementing the Bamako Initiative. The results have been reported in detail elsewhere (16) and this paper deals only with the effects on equitable access to care of establishing fees for service utilization and the financial reports of essential drugs.

Methods

The model used in the study is based on primary health care and the Bamako Initiative approaches: user fees (cost recovery), employed as intended by the Bamako Initiative, should result in equitable access to care through an equitable redistribution of income, thereby allowing poor people to use primary-level services and ensure that the disadvantaged have greater access to care (18).

A mixed qualitative and quantitative approach was used — operational research using a descriptive case-study strategy (19). Data were collected from the following sources: documents (reports, assessments, etc.), archives (management reports, health information system, etc.), nine targeted individual interviews, and three focus group interviews (villagers and health workers).

In Kongoussi the quasi-experimental design had been determined along pre-test/post-test lines (20). The fees-for-services system was established in July 1997 but in only 9 of the 14 HWCs (case HWCs) in existence at that time. The other five did not charge fees (control HWCs). The system of cost-recovery, or more precisely payment for generic essential drugs, has been in operation since 1994. Fees-for-services are decided at the national level (CFA Franc 100 for an adult consultation and CFA Franc 50 for children in HWCs and twice those amounts at HCSUs). The nine facilities were selected because they had a functional and dynamic management committee as well as an efficient essential drug depot (EDD). The nine HWCs that charged fees were part of the first phase of the Bamako Initiative with the establishment of EDDs in 1994–95, whereas in the five other HWCs the EDDs were established a few months before the fees were introduced. It is worth noting that in the study district, the health administrators did not immediately attempt to recover the full costs of HWCs through payment for treatment and medicines. Rather, fees were introduced primarily to contribute to the operating costs of EDDs and not of HWCs, thus explaining why this study focuses exclusively on analysing the financial viability of EDDs. Variations in drug stocks, which might have a significant impact on cash funds, have been taken into account.

In order to determine the impact of fees on service utilization, longitudinal and cross-sectional comparison approaches are required (1). Data on new consultations for curative care were obtained from monthly reports sent by the health facilities to the district (34 out of the 1156 monthly reports (2.9%) were missing for the period January 1995 to June 2000). The total population of the district was determined from the last census, carried out in 1996, and data for the

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4 There are 137 primary health units in remote villages that are used as centres for the advanced strategy.

5 We are referring here to Rawls’ theory of distributive justice and his “maximin” principle, i.e. vertical equity and positive discrimination for the poorest.

6 Three local inhabitants, three members of the management committee and three health workers.
period 1995–2000 were adjusted by applying a population growth rate of 2.42%.\(^d\)

Data were analysed qualitatively using Qsr-Nudist\(^e\) (4.0 QSR International Pty Ltd) software and quantitatively using MSExcel\(^f\) and SAS\(^g\) (6.11 SAS Institute Inc) software.

The study was authorized by the Health Ministry of Burkina Faso.

Results

The two groups of HWCs (cases–controls) are compared in Table 1.

Service utilization in quantitative terms

During the three 12-month periods following the introduction of fees (1997–98, 1998–99, 1999–2000), service utilization in the nine HWCs that charged fees was below that during the reference period (1996–97) for all months of the year (Table 2). The average annual decrease in new consultations for curative care over the 3-year period was 15.4%, a rate that essentially remained stable. In other words, the health facilities lost 15% of their clientele and the villagers concerned never returned to those facilities for care.

The number of consultations in the five HWCs that did not charge fees was far higher than that during the reference period. Growth has been steady since July 1997, with the average annual increase over the 3 years being 30.5%. Fig. 1 shows the different trends for the two groups of HWCs (base 100 for the reference year 1996–97). The data on the indicator for the rate of service utilization (number of new consultations in the reference year 1996–97). The data on the indicator for the rate of service utilization of new consultations in the reference population (Table 3) confirm the increase in the gap between the two groups of HWCs and their opposing trends.\(^e\)

Lastly, it should be noted that the rate of service utilization for the district as a whole (all health facilities) increased from 53.4% to 21% between 1995 and 2000, i.e., by less than 2%.

The fact that the utilization rate returned to its initial level in the nine HWCs that charged fees can be explained by a 12.8% reduction in the reference population caused by the opening of other HWCs (see Table 1). Comparison of the data for the periods 1995–96 and 1996–97 indicates that there was a drop in the utilization rate for both groups of HWCs. This arose because of an outbreak of measles and meningitis during the first half of 1996.

In order to understand the increase in the district’s overall utilization rate, the increasingly important role played by HWCs that do not charge fees requires clarification. Before the establishment of fees, the utilization ratio was 80:20 in favour of HWCs that charged fees after 1997; however once the new policy was firmly established, the ratio was reduced to 50:50.

The decline in the number of consultations following the implementation of fees-for-services does not seem to be random. The only two biases that must be noted are that the nine HWCs that charged fees (cases) differed from the five HWCs that did not (controls), as follows: the criterion of tradition and habit with regard to cost recovery; and the reference population, which decreased twice as much for the control HWC. These points aside, the two groups were more or less comparable, as shown in Table 1.

Service utilization in qualitative terms

The qualitative consequences of charging fees were corroborated by in-depth interviews. What is surprising in the analysis is that all of those interviewed fully concurred about the psychological effect of fees-for-services. Irrespective of whether or not the interviewees used the services, they agreed that it seemed ridiculous “to have to pay for a piece of paper”, i.e. receipt for the amount they had paid. In the past, the patients had paid after consultations, in cash, if they were able to, for tangible goods, i.e. medicines. Now they were out of pocket for something they found difficult to appreciate. In addition, the population adopted a continuum of coping strategies regarding this new policy (Fig. 2).

Cost recovery in qualitative terms

In the study area the concepts of profits and losses, or simply the question of the financial viability of the EDDs, appeared vague and unfathomable to health workers, members of the management committee, and the general public alike. However

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Table 1. Comparison of the nine case and five control health facilities, 1996–97 and 1999–2000

<table>
<thead>
<tr>
<th></th>
<th>Case facilities</th>
<th>Control facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in population(^a)</td>
<td>–12.8%</td>
<td>–23.8%</td>
</tr>
<tr>
<td>Structure of society</td>
<td>Same ethnic groups (80% Mossi)</td>
<td></td>
</tr>
<tr>
<td>Economy</td>
<td>90% agricultural</td>
<td></td>
</tr>
<tr>
<td>Health situation</td>
<td>Same seasonal variation in service utilization</td>
<td></td>
</tr>
<tr>
<td>Health facility opened</td>
<td>Before 1994</td>
<td></td>
</tr>
<tr>
<td>Essential drugs depots opened</td>
<td>1994–95</td>
<td>1996–97</td>
</tr>
<tr>
<td>External support</td>
<td>Save the Children, Netherlands</td>
<td></td>
</tr>
</tbody>
</table>


\(^d\) Source: National Institute of Statistics and Demography, Ouagadougou, Burkina Faso.

\(^e\) The average annual increase for the nine HWCs that charged fees was 0.16% (0.1873 – 1; χ² test = 0.00, P = 0.9741) and for the five HWCs that did not charge fees, 20% (e 0.1873 – 1; χ² test = 6.82, P < 0.09); comparison of the growth rates of the two groups using a Poisson regression, indicated that rates differed significantly (by 5%) (χ² test = 4.05, P = 0.042).
it is also obvious from what people said that they all feared the same thing: bankruptcy. As one sociologist from Ouagadougou pointed out (21), the community leaders have a tendency to accumulate capital. In the light of those remarks and given the difficulty that persons in charge of the management committees had in releasing funds to ensure access to care for the poor, it was decided to monitor the progress of the EDD operating accounts.

Cost recovery in quantitative terms

Table 4 compares the operating accounts of the six EDDs for the periods 1994–96 and January 1999 to June 2000. Over the period 1994–96, three of the six EDDs were already running at a deficit, although they had plenty of cash. Subsequently, over the period January 1999 to June 2000, five of the six facilities were running at a deficit. Moreover, with the exception of one facility, which was virtually in liquidation (Tikaré), all the facilities maintained and even considerably increased their cash-funds level (by 31%, on average, excluding Tikaré).

Table 5 collates all the data, on a monthly basis, with the exception of cash funds, for 1994–96 and January 1999 to June 2000. There was a decline in the average monthly operating results (income minus expenses) for all HWCs between the first and second of these periods. No facility escaped this negative trend, although, as mentioned above, one facility maintained a positive result. However, expenditure (+49%) increased, on average, 2.7 times more than income (+18%), i.e. expenditure did not increase at the same pace as income and did not reflect the 29% drop in the number of consultations.  

The present study also showed that the level of community funding was significant and very high with respect to the family budget. The increase in the EDD funds tends to support the notion that EDDs had accumulated capital during the period of transition between the SCN study (1994–96) and the present one (1999–2000). These results confirm the observations of a cost-recovery study conducted in the Kaya health region in December 1997 (22). Furthermore even though the HWCs had fairly low attendance rates compared with those of such facilities in other countries operating the Bamako Initiative, they still attracted thousands of people who paid cash for their medicine and consultations.

Discussion

We did not discover fundamental confounding factors that might have affected the impact of the introduction of fees-for-

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Table 2. Comparison of the number of new consultations (NC) for curative care and analysis in the five health facilities that did not charge fees and in the nine that did

<table>
<thead>
<tr>
<th>No. of NC for curative care</th>
<th>Difference compared with index year (1996–97)a</th>
</tr>
</thead>
<tbody>
<tr>
<td>Five centres with no fees</td>
<td></td>
</tr>
<tr>
<td>No. of NC</td>
<td>8985</td>
</tr>
<tr>
<td>Basis 100</td>
<td>129</td>
</tr>
<tr>
<td>Nine centres with fees</td>
<td></td>
</tr>
<tr>
<td>No. of NC</td>
<td>37 802</td>
</tr>
<tr>
<td>Basis 100</td>
<td>128</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1995–96</td>
<td></td>
</tr>
<tr>
<td>Without fees</td>
<td>1334</td>
</tr>
<tr>
<td>With fees</td>
<td>−4534</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1996–97</td>
<td></td>
</tr>
<tr>
<td>Without fees</td>
<td>19.2%</td>
</tr>
<tr>
<td>With fees</td>
<td>−15.4%</td>
</tr>
</tbody>
</table>

a No. of consultations in the index year (1996–97) was taken as 100.

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Table 3. Health service utilization rates over the period 1995–2000 in the study health facilities

<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nine health facilities with fees</td>
<td>23.1%</td>
<td>17.9%</td>
<td>15.7%</td>
<td>17.2%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Five health facilities without fees</td>
<td>18.9%</td>
<td>14.9%</td>
<td>21.5%</td>
<td>24.6%</td>
<td>27.1%</td>
</tr>
<tr>
<td>Difference (with fees — without fees)</td>
<td>+4.2%</td>
<td>+3.0%</td>
<td>−5.9%</td>
<td>−7.4%</td>
<td>−9.5%</td>
</tr>
</tbody>
</table>
services, particularly since generic essential drugs are available. As far as the first bias is concerned, the five HWCs that had not established a fee-for-service system were not exempt from the spirit of cost recovery since they had been in operation for several months. The second bias must be considered in relative terms, since the population structure is the same for the two groups of centres and the reference populations for both groups declined.

Nevertheless, it cannot be asserted that the decline in service utilization was entirely due to implementation of the Bamako Initiative. What can be concluded is that the policy definitely made an impact, that it is likely the poor suffered the consequences more than the rich, and that the downward trends for the HWCs that charged fees contrasted with the upward trends for the HF's that did not.

The findings of this study support the hypothesis that there was a build-up of capital during the period of transition between the two studies of EDD operating accounts. Thus in 1997 and 1998 it appears that the EDDs made considerable amounts of money and improved their financial situation by increasing their funds. Despite the decline in the number of consultations, local health administrators did not curb expenditure and did not hesitate, when necessary, to spend considerable sums of money (from income rather than funds, thus explaining the operating deficit) in order to run centres or the district team.

In terms of the goal of equity, which underpins the thinking behind the Bamako Initiative, it is reasonable to pose questions about the serious restrictions placed on access to care for poor people in the district. It would appear that there was a lack of accountability. Assuming financial responsibility for the poor requires criteria to be set up and money to be available. Although funds were raised to build a morgue or to contribute towards the funding of a development plan for the district, no data were even available on whether the EDDs were making a profit or loss. The present study also demonstrated that the EDDs maintained a high level of funds, a finding which suggests that the problem was poor management of the accounts rather than the inability to assume financial responsibility for the health care of the poor. It was also found that in an HWC health zone all the inhabitants clearly knew each other. As one old lady reported, “When you know the people, the houses and the villages, you can easily tell who the really poor people are”. In the community the signs of poverty were relatively easy to detect, but for the decision-makers and “developers” this represented a dilemma for the implementation of exemption for the poor.

Conclusions

Two conclusions can be drawn from the findings reported in this paper. First, charging fees for medical services can have negative repercussions on service utilization for all users.

Table 4. Comparison of operating accounts for the six essential drugs depots over various periods between 1994 and 2000 as a function of their variation

<table>
<thead>
<tr>
<th>Health centre</th>
<th>HCSU</th>
<th>Kongoussi</th>
<th>Sabce</th>
<th>Rouko</th>
<th>Tikaré</th>
<th>Zimtenga</th>
<th>Guibaré</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Income</td>
<td>1 003 284</td>
<td>1 669 207</td>
<td>254 436</td>
<td>488 582</td>
<td>294 366</td>
<td>564 471</td>
</tr>
<tr>
<td></td>
<td>Expenditure</td>
<td>539 413</td>
<td>1 475 475</td>
<td>174 294</td>
<td>366 564</td>
<td>184 087</td>
<td>347 073</td>
</tr>
<tr>
<td></td>
<td>Results</td>
<td>463 871</td>
<td>193 732</td>
<td>39 930</td>
<td>75 889</td>
<td>294 366</td>
<td>564 471</td>
</tr>
<tr>
<td></td>
<td>Cash funds</td>
<td>4 967 087</td>
<td>9 537 226</td>
<td>3 343 538</td>
<td>4 467 765</td>
<td>1 731 955</td>
<td>3 401 175</td>
</tr>
<tr>
<td></td>
<td>No. of new consultations</td>
<td>604</td>
<td>494</td>
<td>272</td>
<td>266</td>
<td>161</td>
<td>138</td>
</tr>
</tbody>
</table>

* Health centre with a surgical unit.
Second, health facilities had ample financial means to provide for the care of poor people, who could initially be identified by the community without any difficulty (16). The sums of money involved for that purpose are not large, and are considerably less than certain non-essential operating costs.

It is thus a priority for the state to take the necessary organizational steps (e.g., incentive measures of an ethical and authoritative nature (22)) to influence the decisions of the actors involved, namely the community, health workers and district management teams, so that they concern themselves with those people who are permanently excluded from receiving care (24), which was the prime motivation for the Bamako Initiative. In the meantime, simple measures must be swiftly implemented at the district level to enable those excluded from services because they cannot pay the fees to return and thereafter to ensure that the poor have access to care, without the need for external financial assistance.

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I should like to thank all the inhabitants of the Kongoussi district, as well as the health workers, management team, Save the Children, Netherlands, and Plan International, and the research team (Ms Traoré-Zongo, Ms Soubeiga). This work could not have been done without the financial contribution of Université Laval (M. De Koninck and J. Girard) and the Centre de Coopération Internationale en Santé et Développement (CCISD Inc.) nor the invaluable assistance of Matthias Somé (Secretary-General for Health in Burkina Faso), Jacques E. Girard, Abdoulaye P. Nitiema, and Paul-Marie Bernard. Yv Bonnier Viger is thanked for his constructive comments on the preliminary version of this article and also the two anonymous reviewers.

Conflicts of interest: none declared.

Résumé
Rémunération à l’acte, recouvrement des coûts et justice sociale dans un district du Burkina Faso appliquant l’initiative de Bamako

Objectif Evaluer les incidences de l’application de l’initiative de Bamako dans le district de Kongoussi au Burkina Faso.

Méthodes Une méthodologie qualitative et quantitative (quasi-expérimentale) a été utilisée.

Résultats Après la mise en place de la rémunération à l’acte en juillet 1997, le nombre des consultations curatives a chuté en trois ans d’environ 15,4 % dans les centres de santé appliquant cette formule mais s’est accru de 30,5 % dans les autres centres. Par ailleurs, bien que personne ne connaisse réellement le niveau des résultats d’exploitation des dépôts de médicaments, les dépenses ont augmenté en moyenne 2,7 fois plus que les recettes et n’ont pas suivi la baisse de l’utilisation des services. Le déblocage de fonds pour assurer l’accès des pauvres aux soins posaient des difficultés aux responsables des comités de gestion.

Conclusion L’introduction de la rémunération à l’acte a eu des incidences négatives sur l’utilisation des services. Le district est en mesure d’absorber le coût financier de la prise en charge des plus démunis et la communauté est à même de les identifier. Des mesures incitatives doivent être prises par l’Etat et rapidement appliquées pour que les communautés consentent à instaurer un système plus équitable afin de permettre aux personnes exclues des services, du fait de leur incapacité à payer, d’avoir accès aux soins.

Resumen
Honorarios por servicios prestados, recuperación de costos y equidad en un distrito de Burkina Faso que aplica la Iniciativa Bamako

Objetivo Medir los efectos de la aplicación de la Iniciativa Bamako en el distrito de Kongoussi (Burkina Faso).

Métodos Se utilizaron métodos cualitativos y métodos cuantitativos cuasiexperimentales.

Resultados Tras la introducción de los honorarios por servicios prestados, en julio de 1997, el número de consultas de atención curativa disminuyó a lo largo de tres años un 15,4% como promedio en los centros de salud estudiados como «casos», mientras que en los centros de salud «controles» aumentó en un 30,5%. Además, aunque se desconocen los resultados operacionales para los depósitos de medicamentos esenciales, el gasto aumentó por término medio 2,7 veces más que los ingresos y no se vio acompañado a la disminución de la utilización de los servicios. Los responsables de los comités de administración tuvieron dificultades a la hora de liberar los fondos necesarios para evitar que los pobres se quedaran sin asistencia.

Conclusión La introducción de los honorarios por servicios prestados repercutió negativamente en la utilización de los servicios. El distrito estudiado está en condiciones de asumir el costo económico de la atención a los pobres, y la comunidad puede identificar a tales personas. Es preciso que el Estado instaure incentivos y los aplique sin dilación para que las comunidades acepten un sistema más equitativo y permitan así que todas las personas excluidas de los servicios por no poder pagar tengan también acceso a la asistencia.
References


