Basic Package of Health Entitlements and Solidarity in the Federation of Bosnia and Herzegovina

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The aim of this report is to provide an overview of the methodology for designing a basic package of health entitlements and solidarity in the Federation of Bosnia and Herzegovina which will, respecting the principles of solidarity and equity, guarantee equal rights to all citizens of the Federation. After the analysis of the situation, we specified the reasons for the reform, listed the objectives, and described the basis of the basic package design, the establishment of federal solidarity, and the plan of realization. We discussed the background ethical theories of our policy choice, explicitly stated the normative and technical criteria for priority setting, and deliberated federal financing solidarity policy and allocation methodology, as well as criteria for “risk equalization” among cantons.

Key words: assessment of health care needs; Bosnia and Herzegovina; health care reforms; health transition; insurance, health; medically underserved areas; priorities, health

Decreasing resources and increasing expenditures of the health care in Bosnia and Herzegovina bring pressure on national decision-makers to develop effective strategies for dealing with these problems. To increase the health care resources, the state can (a) shift funds from other areas of public sector expenditure and increase taxation or social insurance contributions, and (b) take control over the health care expenditures through the reform strategies that influence either the supply or demand of health care services. Two sets of cost containment measures aiming at the service reduction are cost sharing and priority setting (1). Priority setting in health care involves choosing among the alternative health care programs and services, and the patients or groups of patients who should receive it. It also ranks these alternatives in accordance with normative and technical rules, thus leading to the definition of a minimum or basic package of health care entitlements, and involves the relative ranking of health care services. Rationing is carried out by health care providers or policy decision-makers to save resources, though usually without cutting the entitlements, and it means distributing scarce resources when there is no market to perform the task. Rationing itself may or may not be achieved through priority setting (2).

The 1992-1995 war in the country caused great human and material losses (3,4), and divided the country into two entities: the Federation of Bosnia and Herzegovina (51% of the territory, mostly populated by Bosniacs – former Bosnian Muslims – and Croats) and Republic Srpska (49% of the territory, mostly populated by Bosnian Serbs) (3,4). The Federation of BH was further divided into 10 cantons (3 with Croat and 5 with Bosniac majority, and 2 mixed) with a considerable administrative autonomy (3,4). All this, with inevitable transition from a socialist to market economy, prompted the authorities of the Federation of Bosnia and Herzegovina to raise the payroll contribution from the pre-war 12% to 18%, and to make various arrangements of cost sharing (co-payment) and priority setting in health care (the basic package of health entitlements).

The aim of introducing cost sharing is to reduce the excessive demands on health care and raise additional funds for regular functioning of the health care system. Broadly defined exemptions from cost sharing can alleviate the financial inequalities, accommodating the people with low income, and in equalities in health services for the elderly, children, and chronic patients.

Setting the priorities in health care in the Federation of Bosnia and Herzegovina, which should
be covered by the compulsory health insurance, will be comprehended in the basic package of health entitlements during the year 2000. The basic package of health entitlements will guarantee equal rights to all citizens of the Federation and respect the principles of solidarity and equity. The services that are not included in the basic package can be left to the individual responsibility of each citizen. It is expected that establishing private health insurance companies will raise additional funds within the health care system. The private companies will be allowed to cover extra risks on a citizen’s voluntary basis, but not the services encompassed by the scheme of compulsory health insurance. Services that are covered by insurance are evident in everyday practice of individual physicians. The Federal Law on Health Insurance offers a range of possibilities for transferring a part of the health care financial burden onto the citizens, either through private health insurance or through direct payments for health services.

The aim of this report is to provide an overview of the methodology that would be employed for designing the basic package of health entitlements and solidarity in the Federation of Bosnia and Herzegovina.

**Situation Analysis: Specific Reasons for the Reform**

In 1990, annual health expenditures in Bosnia and Herzegovina were DM364 per capita. Health insurance contributions in both Croats and Bosnian administrative units (cants) of the Federation have been made at a rate similar to that in 1998, when they were DM154 per capita. It is obvious that the resources are used to half in comparison to 1998, all tending to select good risks, the priniciple of solidarity in health care financing could be eroded. Therefore, strategies for regulating business and functioning of these private companies are currently being discussed (5,6).

The objective of this report is to provide an overview of the methodology that would be employed for designing the basic package of health entitlements and solidarity in the Federation of Bosnia and Herzegovina.

**Table 1. Cantonal distribution of health care resources in the Federation of Bosnia and Herzegovina**

<table>
<thead>
<tr>
<th>Canton</th>
<th>Population</th>
<th>Revenues (DM)</th>
<th>Per capita (DM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Unsko-Sanski</td>
<td>290,420</td>
<td>34,506,000</td>
<td>118.81</td>
</tr>
<tr>
<td>2. Bosnian</td>
<td>40,736</td>
<td>5,441,000</td>
<td>133.56</td>
</tr>
<tr>
<td>3. Tuzla</td>
<td>525,146</td>
<td>72,002,000</td>
<td>136.33</td>
</tr>
<tr>
<td>4. Zenica-Doboj</td>
<td>385,993</td>
<td>57,006,000</td>
<td>147.69</td>
</tr>
<tr>
<td>5. Bosnian</td>
<td>34,566</td>
<td>4,835,000</td>
<td>139.88</td>
</tr>
<tr>
<td>6. Central Bosnia</td>
<td>223,373</td>
<td>34,340,000</td>
<td>153.73</td>
</tr>
<tr>
<td>7. Neretva-</td>
<td>210,404</td>
<td>45,229,000</td>
<td>214.96</td>
</tr>
<tr>
<td>Herzegovina</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. West Herzegovina</td>
<td>81,087</td>
<td>12,152,000</td>
<td>149.66</td>
</tr>
<tr>
<td>9. Sarajevo</td>
<td>368,369</td>
<td>123,577,000</td>
<td>335.47</td>
</tr>
<tr>
<td>10. Herzeg-</td>
<td>80,693</td>
<td>10,912,000</td>
<td>135.23</td>
</tr>
<tr>
<td>Bosnia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Federation of B&amp;H</td>
<td>2,243,789</td>
<td>400,000,000</td>
<td>178.27</td>
</tr>
</tbody>
</table>

**Objectives**

The objectives in terms of priority setting in the health care and subsidizing on the territory of the Federation are:

1) To ensure that health care policy objectives and crucial principles of the health care system reform are accomplished through the implementation of the basic package of health entitlements. For example, it is necessary to frame the utilization of the cost-effective and efficient services.

2) To raise additional funds for the services not included in the basic package of health entitlements by patients paying directly for such services.
Proposals for the Reform

The basic proposals for the priority setting reform in the Federation are in compliance with the objectives defined, which should be achieved in a medium-term period. Apart from defining the basic pack age of health entitlements, and in terms of explicit rationing, the proposals for the reform also involve establishing an institutions network. It is a policy-makers’ moral responsibility to meticulously examine all the possibilities for savings that may arise from rationing “the health institutions network” (health care providers allowed to make contracts with compulsory health insurance), prior to considering the mechanisms for implementing the explicit rationing of entitlements to health care. Providers being allowed to make contracts with compulsory health insurance will financially supply the health institutions network.

The policy-makers are expected to support the patient-oriented concept of health care system, which will exhaust every potential that the health institutions network rationing offers, unlike the physicians and pharmaceutical industry-oriented concepts that tend to explicitly rationalize health care entitlements. Therefore, the implementation of the basic package can be justifiable only after the evaluation of cost-containment in terms of establishing the network of health institutions (7).

Methodology of Basic Package Design

Facing scarce resources (5), the Government of the Federation of Bosnia and Herzegovina has chosen to influence the degree of demand for health care through priority setting. Priority setting in health care is defined as a decision-making process that ration the individual access to necessary services through the basic package of health entitlements, which is to be financed from the solidarity resources of compulsory health insurance. The list of the entitlements will not exclude any of those from the basic pack age, but part of the costs will be shifted to a user (7).

Decision-making. Priority setting cannot be degraded to a technical exercise. Technical analysis should be combined with an exhaus tive public debate about the choices, primarily of ethical nature, which should be made. Decision-making is based on moral judging rather than merely technical analysis, and should enjoin certain rights to health care and who will not (2,10). Three major principles of equity approach rest on the following instances (10): (a) utilitarianism—the greatest benefit for the largest number of individuals; (b) egalitarian liberalism—the individual right to choose one’s own life plan, as well as positive rights to the pre requisites for effective choice; and (c) communitarian perspective (relativist and universal).

Since all three approaches have practical limitations, there must be a social consensus on the particular approach to distribution which will be adopted as a basis for its policies. The Federal Government maintains that pluralism in theories of justice reflects the moral pluralism of societies. The background ethical theories of our policy choice could be defined as a combination of objective utilitarianism and egalitarian liberalism. The basic principles of basic package design process are generally egalitarian liberal. However, if we did the process in a cost-effective way, we will combine egalitarian liberalism with objective utilitarianism in a consistent and compatible way (10). Federal Government is committed to objective utilitarianism, to achieving the greatest benefit for the great extent of people, and to egalitarian liberalism for addressing individual rights of equal opportunities for effective choice.

Decision-makers. The ministries of health (federal and cantonal), health insurance funds, health care providers, public health professionals, public, and patients play the major roles in the priority-setting process. Legitimacy of priority setting directly corresponds with the process of decision-making as long as it is open and reflects the pluralism of interests in a society. However, the ultimate priority setting is the responsibility of elected government officials (Working Groups of the Federal Ministry of Health), who must make decisions and keep the balance between the need to contain the health care costs, on the one hand, and broader social values and principles, policy objectives, legal framework, demand for services, political pressure, as well as expectations of the public and patients, on the other. The working group of the Federal Ministry of Health shall expand in number to employ experts in public health, health insurance, and some clinical disciplines (7).

Criteria. The aim of introducing cost-sharing and basic pack age of health entitlements is to raise additional funds for normal functioning of the health care system, but also to influence health care demands. The basic package of health entitlements will guarantee the same rights to all the citizens of the Federation on the basis of compulsory health care insurance, thus meeting the principles of solidarity and fairness. Respecting the prevailing political circumstances as well as expectations of the public, it is essential to avoid designing positive or negative lists of health services. Avoiding the negative list of services not funded by public resources at all would meet the expectations of the public. On the other hand, it would allow the Government to shift the emphasis to cost-effective services and discourage the us age of inefficient and ineffective services.

The criteria for setting normative priorities within the Law on Health Care (8) are presented in Table 2. These criteria are as follows: (a) health
care of vulnerable groups in the population—children under 15 years of age, full-time pupils and students; per sons over 65 years of age (points 4, 5, and 13); (b) reproductive health care—health care of mothers and pregnant women (point 8); (c) health care of those in con ditions or suffering from dis eases that may result in the death of infants or the health of the entire population; (d) preventive health care (points 11 and 13); (e) health care of those suffering from diseases causing a high degree of disability (point 10).

The criteria for priority setting, i.e., classification of the services into the three categories, are presented in Table 3. We have chosen to classify all health services into three categories according to the priorities (7): category A: services that are not paid at the delivery (or for which the co-payment is up to 10%); category B: services for which co-payment of 11-50% of the cost is required; and category C: services for which co-payment of 51-95% of the cost is required. The health care services of category A are those given a high degree of priority within our health care policy. Category A encompasses those services dealing with non-mandatory criteria contained within the Law on Health Care, as well as other choices being made within our health care policy (11). The services from the cat e-

tories B and C will be ranked as pri ori ties according to their efficiency and cost-effectiveness. The level of co-payment will be inversely proportional to their efficiency and cost-effectiveness. Besides, the level of the co-payment will be determined by the planned amount of resources expected to be raised through private health insurance or direct payments. The key criteria used to rank the services into B and C categories are cost-effectiveness and QALY (Quality Adjusted Life Years) or DALY (Disability Adjusted Life Years), separately or in logical combinations.

Cost-effectiveness analysis. Cost-effectiveness analysis may be a tool for deciding between two or more possibilities for treating the same disease. Broader normative choices on the distribution of benefits in the society must be made on ethical grounds. This analysis may become irrelevant, if the criteria for priority setting are applied across age groups (e.g., children and the elderly).

Evidence-based medicine. Research in evidence-based medicine can identify ineffective interventions, remove them from statutory provision, and thereby disburden the resources. Medical knowledge is an essential ingredient of cost-effectiveness analysis.

QALY and DALY. The World Bank’s recommendations draw heavily on the results of the Health Sector Priorities Review carried out between 1987 and 1993 by Murray and Lopez (12). This used disability adjusted life years (DALYs), which are a

Table 2. Criteria for setting normative priorities for healthcare in the Federation of Bosnia and Herzegovina

<table>
<thead>
<tr>
<th>Category</th>
<th>Normative priorities</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Health care of vulnerable groups</td>
<td>Children under 15 years of age (4) Full-time pupils and students (5) Persons over 65 years of age (13)</td>
</tr>
<tr>
<td>b) Reproductive health care</td>
<td>Ensuring safe motherhood and pregnancy (8)</td>
</tr>
<tr>
<td>c) Life threatening conditions and the health of the entire population</td>
<td>Urgent medicine (1) Treatment of communicable diseases (2) Treatment of life-threatening acute and chronic diseases (3) Detection and treatment of endemic nephropathy (6) Treatment of malignant diseases and insulin-dependent diabetes (7) Health care of mentally disabled patients who, due to their illness, may threaten their own lives or lives of others or damage property (9) Treatment of injuries at work and professional diseases (12) Treatment of drug-abuse (14)</td>
</tr>
<tr>
<td>d) Preventive health care</td>
<td>Compulsory immunization against children’s communicable diseases (11) Transfusiology services (15)</td>
</tr>
<tr>
<td>e) Prevention of high degree of disability</td>
<td>Health care for those suffering from progressive neuro-muscular diseases, paraplegia, quadriplegia, cerebral paralysis, and multiple sclerosis (10)</td>
</tr>
</tbody>
</table>

Table 3. Criteria for priority setting in the health care financing in Federation of Bosnia and Herzegovina

<table>
<thead>
<tr>
<th>Category of services</th>
<th>Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>(a) the package of health services provided to family (b) diagnostics and treatment that favor primary prevention (c) health promotion programs and public health services (d) vulnerable groups in the population (e) physical and mental rehabilitation of war victims (f) certain groups of diseases included within normative criteria (g) conditions and diseases that directly threaten the life of individuals or the entire population (h) reproductive health (i) diseases causing a high degree of disability (j) a number of drugs included in the essential drug list</td>
</tr>
<tr>
<td>B</td>
<td>(a) cost-effectiveness analysis (b) evidence-based medicine</td>
</tr>
<tr>
<td>C</td>
<td>(c) QALY+ and DALY+</td>
</tr>
</tbody>
</table>

Footnotes:
1. The provisions of Article 32, Law on Health Insurance (numbers in brackets).
2. QALY = quality adjusted life years.
3. DALY = disability adjusted life years.
4. Per cent age of co-payment: A, 0-10%; B, 11-50%; C, 51-95%.
5. QALY = quality adjusted life years.
6. DALY = disability adjusted life years.
particular form of QALYs, to map the global burden of disease and to analyze the cost-effectiveness of different interventions. The results of the Health Sector Priorities Review indicate wide variations in the cost per DALY of some fifty interventions, which led the World Bank in the World Development Report of 1993 to argue for the re-direction of health care resources to interventions of proven clinical effectiveness (13).

However, QALY and DALY are at present of limited practical use (2). They are more useful in pointing out the dilemma of rationing and priority setting than in providing answers to the difficult questions of choice. The scale of cost per QALY or DALY is useful in making choice between alternatives in the treatment of the same disease. Relative calculation of the quality of years of life depends on specific characteristics of the given group. Numerous technical difficulties include: the problems of valuing future levels of benefits; the fact that QALY and DALY are ascribed to and averaged from which individuals, or even groups, depart (such as elderly people, who could be discriminated against because they have fewer years of life after an intervention; the fact that different people have different abilities to respond to the same treatment; the absence of the full knowledge of the different treatment effectiveness; and others). Impracticability of applying only one of the criteria as a technical rule in priority setting calls for employing criteria in conjunction. Thus, for instance, evidence-based medicine can complement cost-effectiveness analysis, since it can offer new knowledge on effectiveness of medical interventions. Similarly, evidence-based medicine can profit from cost-effectiveness analysis, which allows financial evaluation of alternative interventions. Techniques used in cost-effectiveness analysis, specifically QALY and DALY, can be used in conjunction with needs assessment, as they can shed light on relative ranking of needs. Both needs-based approaches and cost-effectiveness analysis (including QALY and DALY) can be further used as the basis for designing a basic packet of health care services.

**Basic Package Implementation Strategy**

Efforts to design a basic package of health entitlements should stimulate the development of strategies for its implementation. Even with clearly defined technical priorities, it is not always possible to implement them in a short-term or longer period. The following prerequisites must be met (1): (a) the current health system must ensure the quality of the basic health services provided; (b) there must be a universal, or almost universal, access to the basic package services within the proposed budget; and (c) the contents of the basic package must reflect reasonable political attitude towards its acceptability at the given moment.

Financing and provision of health care must be changed to justify shifts in the priorities, such as introducing regulations, alterations in payment schemes for health care providers, review of clinical protocols for diagnosis and treatment of certain conditions, changes in estimated costs or in resource allocation in the health system itself.

In parallel with priority setting within the basic package of health entitlements, it is necessary to assess the costs. The cost asssment should result in formulas for resource allocation to various departments or groups of services. The basic reason for designing the formulas for resource allocation lies in the necessity to assure transparency and fairness in the resources allocation from the health insurance funds to the health institutions and departments and services within. A fair geographic distribution of resources according to demographic indicators and morbidity is essential. Also, the amount of money that can be raised through co-payments will be assessed, and the modus of its allocation (flow) will be determined.

In parallel with the planning of the implementation of the basic pack age of health entitlements, it is necessary to launch a series of activities that will encourage establishing private health insurance companies. Insufficient funds earmarked to the health insurance funds to primary health care must be gradual, grounded in accurate financial analyses, and carefully sustained.

**Methodology of Federal Solidarity**

In accordance with the Law on Health Care (14) and Law on Health Insurance (8), all the cantons are obliged to ensure sufficient funding for the basic package of health entitlements. If this cannot be achieved at the cantonal level, mechanisms of federal solidarity must be employed. Through the current health laws, the Federal as a state, with the highest level of health authority in the health system in Bosnia and Herzegovina, guarantees all its citizens equal rights to the basic package of health entitlements. However, it is unlikely that resources from the Federal budget will be used for this purpose. The Federal Ministry of Health has recently launched a public debate on solidarity within the Federation. A transfer of 20% of health revenues from all cantonal health insurance funds to the Federal Health Insurance Fund in Sarajevo has been offered. The issue of solidarity and political-administrative trend of decentralization has been very clearly distinguished and reconciled (15).

The funds will then be re-allocated to all the cantons, according to the combination of various criteria. Allocation of mula has already been considered as follows: basic package of health entitlements within primary and secondary health care (39.37%), vertical programs of health care (14.56%), referral tertiary level clinical centers (43.75%), centralized purchasing of pharmaceuticals and medical equipment (1.25%), and administrative costs of Federal Health Insurance Fund (1.06%).
Subsidies for Basic Package within Primary and Secondary Health Care

Countries having already developed “risk equalization” scheme among regions point out the need for having the following data: age groups; gender; morbidity data; life styles; socio-economic status; number of dependent family members; and retired and disabled per sons [16]. Countries without pre-cise data on the age groups distribution and morbidity could not create a reliable basic package of health entitlements for their regions. Therefore, collecting these data is the first step in equalization of the health care spending per capita throughout a country in order to decrease inequality. The portion of solidarity revenues (39%) will be reallocated to cantonal funds in order to equalize spending per capita within all cantons (targeting primary and secondary health care).

Vertical health care programs. The Federal Ministry is aware of the fact that the over all costs of the basic pack age of health entitlements per capita will not be identical in all the cantons due to different structure of health care de mands. Therefore, 14% of solidarity revenues from the Federal Fund will be employed in direct contracting with health institutions in the territory of the Federation so as to finance the so-called vertical health care programs (such as endemic nephropathy). These programs will remarkably decrease a burden on cantons carry in financing basic package of health entitlements, and in create equity as well.

Solidarity within tertiary health care. The costs of tertiary level of health care were estimated up to 8% of total health expenditure. Allocating for mula will be established on the basis of population in cantons, number of required beds (0.4 beds/1000 inhabitants), and consequence percentage within overall available resources for tertiary level. Political decisions of cantonal ministries of health will designate their referral tertiary level clinical center (Sarajevo, Mostar, or Tuzla). Be side services being provided within three clinical centers, there are a few being pro vided within one or two of them. For instance, heart surgery is performed in Tuzla and Sarajevo. The policy is to allow competitive relationship between these two centers and to allocate resources in accordance to the percentage of provided services, but within a budget available for heart surgery. Therefore, cost containment will be maintained.

Centralized procurement. The Federal Ministry of Health and Federal Health Insurance Fund will create mechanisms for centralized procurement of pharmaceuticals and medical equipment in order to take ad van tage of bulk prizes [7]. Incentives for cantonal participation in these tenders open a possibility for substantial saving. On the other hand, decentralization of health care encompasses decentralized planning at the cantonal level in accordance to the needs, where federal level should respect cantonal decisions.

Prerequisites for federal solidarity. The process of cross-cantonal subsidization must be in line with clearly defined criteria. Key prerequisites for establishing the mechanisms of federal solidarity are [15]:

a) The operations of the cantonal funds must be transparent. The health funds can not be a part of the cantonal budget but must be transferred from the government auditing offices directly to the health insurance funds.

b) The decision-making process regarding the allocation of the funds from the federal fund to the cantons must be transparent and equitable, and its legitimacy will be decided upon by consensus of all cantons.

c) The network of health institutions verified by the Federation Parliament should equally distribute material and human resources in the Federation. The health institutions that are part of the network may be subject to the federal soli darity.

d) Health care resource accounts should be institutionalized within the Federal Health Insurance Fund in order to provide transparent evidence on the resource availability throughout the Federation.

Action Plan, Activities, and Responsibilities

In order to accomplish the reform proposals related to basic pack age of health entitlements and solidarity in the Federation of Bosnia and Herzegovina, the Federal Ministry has developed the following action plan:

a) The working group of the Federal Ministry of Health shall design a basic package of health entitlements in line with the established criteria in the period March–June 2000, calculate its costs, and devise formulas for assigning resources.

b) The Federal Ministry of Health, in cooperation with the cantonal ministries and health insurance funds, shall produce the operational plan for the implementation of the basic package of health entitlements in the period July–September 2000.

c) The Federal Parliament shall adopt the basic package of health entitlements by November 2000.

d) The basic package of health entitlements shall be enforced on 1 January 2001.

e) The Federal Health Insurance and Reinsurance Fund, in cooperation with representatives of the cantons, shall produce a detailed methodology for re-insurance of the basic package of health entitlements as well as the criteria for assigning resources to the cantons by July 2000.

f) Institutionalizing of the health care resource accounts in the first half of 2000 is a responsibility of both the Federal fund and cantonal health insurance funds.
Acknowledgments

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