Original Article

The Benchmarks of Fairness for Health System Reform: a Tool for National and Provincial Health Development in Thailand

Supasit Pannarunothai, M.D Ph.D. (1) Samrit Srithamrongsawat, M.D M.Sc. (2)

1. Centre for Health Equity Monitoring, Faculty of Medicine, Naresuan University 2. Health Insurance Office, Ministry of Public Health

Abstract:

This paper presents the results of tests of the Benchmarks of Fairness for Health System Reforms on two occasions. The first result is a test of the Benchmarks as a tool to assess the MSH/HSRI proposal on health system development published in 1999. The second is a test as a tool to evaluate the achievements of health care reform activities in two provinces. Scores of the tests are presented, but they must be interpreted with caution. The paper ends with the recommendation that the Benchmarks should be used in order to increase awareness on equity and fairness in the Thai health system. The new Health Minister, and new PCMOs should draft their health development proposals in light of the Benchmarks and these proposals should be reviewed by their peers, again using the Benchmarks.

Key word: health care reform, benchmarks, Thailand, equity

Introduction

The Benchmarks of Fairness for Health Care Reform were developed by Daniels, et al⁽¹⁾ as a tool to evaluate medical insurance reform proposals in the United States around the time of the presidential election in 1992. The original conception of a fair health care system was based on the ethical issues of universal access to comprehensive and equal benefits with fair financial burdens and a workable, efficient, and accountable system. Despite the failure of President Clinton's health care reform, the virtue of the Benchmark should not be abandoned. The basis of developing the Benchmarks, if properly adapted, should be applicable for policy analyses of health reforms in developing countries, as there are many reform proposals being considered.

In Thailand, the issue of health equity has been raised frequently in the context of health care reforms at the national and provincial levels. The European Union(EU) funded Health Care Reform Project of the Ministry of Public Health (MOPH), Thailand makes an explicit statement that the ultimate goals of the reforms are equity, quality, efficiency and social accountability⁽²⁾. With this initiative, five provinces were selected to participate in the comprehensive reforms, including financing and health care delivery reforms. Further refinements of the Benchmarks can be useful in evaluation the effects of health care reform in Thailand.

Later in 1998/1999, the Asian Development Bank (ADB) granted a technical assistance (TA) Health Financing and Management Study to Thailand because of the economic crisis that started in the second half of 1997. The Bank's assistance was to ensure that the social sector (health, education and labour) would perform well in the midst of the crisis. Through the efforts of researchers (the TA team) from a non-profit American organisation (Management Science for Health-MSH) and the Thai independent research institution (Health System Research Institute-HSRI), the study recommends that the Thai health system needs comprehensive reform to achieve equity, efficiency and quality⁽³⁻⁷⁾.

With these ongoing reform activities, the considerations of the original Benchmarks would be beneficial to the Thai health system.

To make the scope of this study clearer, the terms 'benchmark' and 'fairness' should be discussed. Since the benchmarks are expected to be tools to evaluate the proposal for health system development, the benchmarks should then focus on the mechanisms to ensure that the system will work as planned. The mechanisms include *a system, plan, rule and regulation, procedure and audit* to achieve the goal. Arguments arise about whether the Benchmarks should measure the intention to achieve the specified goals or measure the real achievements. This study is inclined to accept the first argument for the assessment of the MSH/HSRI proposal, because the proposal has not yet been implemented, and to accept the second argument for evaluating the provincial health reforms since the field trials in the provinces began in 1996.

Fairness is thought to embrace broader concepts than equity⁽⁸⁻¹⁰⁾, because fairness includes equity in access, financing, outcome, efficient management and resource allocation and accountability¹. While most literature on equity focuses equity narrowly on inputs and outcomes, the strengths of the Benchmarks of fairness are that they focus more on *processes* to guarantee equity. In other words, the Benchmarks of fairness will ensure the process to achieve the desirable equity (input, access and outcome). Fairness in terms of efficient management conveys the ultimate goal of making efficiency serve the ends of equity.

Preliminary workshops in Mexico, Columbia, Pakistan and Thailand in early 1999, funded by the Rockefeller Foundation, reached the consensus that the Benchmarks should be adapted to take account of broader intersectoral public health issues before going into details of financing and service delivery systems. Many further changes were made in the criteria falling under each benchmark. The new tool consists of nine benchmarks rather than the original ten⁽¹¹⁾ (see Table 1). Details for each benchmark can be seen in the Annexes.

Table 1 The Benchmarks of Fairness

US Benchmarks of Fairness	The new Benchmarks of Fairness
Benchmark 1: Universal access	Benchmark 1: Intersectoral Public Health
- Coverage and Participation	Benchmark 2: Financial Barriers to Equitable
Benchmark 2: Universal access	Access
- Minimizing Nonfinancial Barriers	Benchmark 3: Non-financial Barriers to Access
Benchmark 3: Comprehensive and Uniform	Benchmark 4: Comprehensiveness of Benefits
Benefits	and Tiering
Benchmark 4: Equitable Financing	Benchmark 5: Equitable Financing
- Community-Rated Contributions	Benchmark 6: Efficacy, Efficiency and Quality
Benchmark 5: Equitable Financing	of Health Care
- By Ability to Pay	Benchmark 7: Administrative Efficiency
Benchmark 6: Value for Money	Benchmark 8: Democratic Accountability and
- Clinical Efficacy	Empowerment
Benchmark 7: Value for Money	Benchmark 9: Patient and Provider Autonomy
- Financial Efficiency	
Benchmark 8: Public Accountability	
Benchmark 9: Comparability	
Benchmark 10: Degree of Consumer Choice	

-

¹ This study will later be referred to as the MSH/HSRI proposal.

This paper aims to highlight the potential use of the benchmarks as an analytical framework for health development at the national and provincial levels. Important evidence from field research is presented, and the potential uses of the benchmarks are recommended.

In order to determine whether or not the benchmarks are applicable to the context of the Thai health system reform, this study aims to:

- assess the proposal of the MSH/HSRI on health system reform using the Benchmarks,
- evaluate the achievements of provincial health care reforms using the Benchmarks.

Methods

In-depth interviews and focus group discussions were the main methods of data collection. Two levels of assessments were made: the national level to assess the **MSH/HSRI** proposal and the provincial level to assess the implementation of the reforms. Two provinces (Phayao and Yasothon) were purposively selected because they implemented the reforms in all districts.

Focus group discussion of the **MSH/HSRI** proposal was carried out at only one session because the core researchers involved were a small group (see details in the next section). Only four Thai researchers who drafted the reports (including the first author of this paper, SP) participated in the focus group discussion. However, the extent of the discussion was explorative but decisive enough to yield challenging recommendations. Finally, the participants were also asked to give the scores individually. Only two participants gave the scores because one left before the scoring process started and the first author (SP) was reluctant to score because of possible bias in favour of the benchmarks.

In-depth interviews were undertaken with the provincial chief medical officer (PCMO) and the deputy PCMO in order to understand the context of the reforms in the provinces. The Phayao PCMO was asked to give a score for each benchmark after the indepth interview/discussion.

Focus group discussions at Yasothon province were carried out in 3 sub-levels in order to obtain homogeneity within groups. The first group consisted of 5 participants. They were heads of planning and academic sections at the provincial health office to reflect the manager's frame of thought. The second group consisted of 10 heads of the district health offices (DHO) to reflect the views of providers and consumers. Directors of 8 district hospitals (DH) were the third group to reflect provider's view points. After the interpretation and discussion of each benchmark, the participants were asked to give a score to each item on each benchmark. Finally, participants were asked to give an overall score with whatever implicit weighting they thought appropriate. This does not ruin the whole process of explicit scoring as will be explained in the discussion section. Because of a time limitation, only one group discussion was performed in Phayao. There were 8 participants of the heads of district health offices.

If the benchmarks were actually being used for evaluating reforms for policy, rather than testing purposes, participants would have been requested to provide the rationale for each score given. Such rationale would then be the basis for further deliberation and would make the assignment of scores more objectively based on reason.

Results

The assessment of the MSH/HSRI proposal

Context

The MSH/HSRI proposal for health system reform was the output of the joint work between two US-based researchers of the Management Science for Health (a non-profit consultancy) and seven Thai researchers recruited by the Health Systems Research Institute. The work of the technical assistance (TA) team was funded by ADB in response to the economic crisis in Thailand that began in 1997. The final recommendations were put into the medium term policy package on universal coverage presented in the 'Final Integrated Report', while many specific recommendations can be found in 4 other reports on 'Human Resources for Health', 'Referral System', 'Hospital Autonomy in Thailand', and 'Health Financing in Thailand'.

Comment

The idea of benchmarking is appealing for assessing a package of health system reform. The scope of health system reform is wider than the scope of health care reform. In the case of health system reform, the benchmark 1: Intersectoral Public Health, gave a good overview of how to deal with broad public policies. However, the detailed items of this benchmark (e.g. basic nutrition, housing, health education) need rephrasing to capture the proper Thai context.

The benchmarks 6 and 7, Efficacy, Efficiency and Quality of Health Care, and Administrative Efficiency provide opportunities to establish the mechanisms to ensure efficiency. The mechanisms can be found in the forms of plans, standards, rules and regulations, and auditing systems. Benchmark 6 is related to the provision of effective, efficient, and good quality health services, and Benchmark 7 is related to administration under an efficient system.

The benchmarks 8 and 9, Democratic Accountability and Empowerment, and Patient and Provider Autonomy deal with the administrative and individual levels, respectively. Apart from making the system accountable within the administrative framework – i.e. 'good governance', the strengths of these benchmarks are that people's perspectives are taken into consideration on a system approach (in the benchmark 8_ empowerment) and on an individual approach (in the benchmark 9_ patient autonomy).

Scoring the MSH/HSRI proposal

Following the discussions, participants were asked to give scores to the proposal. The results are shown in Table 2. Participants could score from -5 to +5 to express their judgements on the impact of the proposal. -5 means that the worst situation from the reform will be anticipated, while +5 means that the most positive effects are most likely. 0 means no effect or no concern on the issue. Obviously, these numbers are intended to rank outcomes, not to provide a cardinal metric for them.

Table 2 Average scores of the MSH/HSRI proposal on health reforms

Benchmarks	Score
1. Intersectoral public health	0
2. Financial barriers to equitable access	3, 4
3. Non-financial barriers to access	2, 3
4. Comprehensiveness of benefits and tiering	3
5. Equitable health financing	4, 5
6. Efficacy, efficiency and quality of health care	4
7. Administrative efficiency	4
8. Democratic accountability and empowerment	3, 5
9. Patient and provider autonomy	3

The benchmark 1 was graded 0 because the MSH/HSRI package did not pay attention to the broad intersectoral public health issues. The strongest element of the proposal was the concern over equitable health financing, since the proposal tries to reach the uninsured group by expanding the tax-financed scheme and reducing the reliance on user charges by collecting minimal co-payments. These policy options were based on the finding of a regressive Kakwani index of health financing⁽¹²⁾. It is interesting that the nonconsensus issue was Benchmark 8, concerning democratic accountability and empowerment. One participant, who had a law background, gave +5. He may believe that the proposal provides a lot of power to lay people, as they could become board members of the autonomous hospitals or the provincial health boards. The other participant, a medical doctor, gave a score of +3. He was not fully satisfied that the proposal met all the elements under these benchmarks; e.g. fair grievance process. If a common rationale had been acquired, a clearer understanding of their agreement would have emerged, and it might have been possible for them to resolve their scoring differences.

Other strengths of the proposal included efficiency and quality of care (the benchmark 6), and administrative efficiency (the benchmark 7). The proposal put high emphasis on development of primary medical care (PMC) through a district health team and fund holding arrangements. The quality elements of this benchmark are addressed by the guidelines and measures developed by the Joint Hospital Accreditation Group, which already exists in the country. For achieving administrative efficiency, the proposal emphasised decentralisation of decision making and proposed setting up an audit system to prevent fraud in the billing process.

The benchmark with the lowest score was Benchmark 3, which addresses non-financial barriers to access. Though the Human Resource for Health component⁽⁴⁾ tried to suggest ways to retain health manpower at the district level through a district health team strategy, gender and socio-culture aspects were not dealt with.

Implication on future uses

Can the benchmarks be used as a tool for a newly appointed provincial chief medical officer to prepare his or her proposal for provincial health development? The discussion answered this question as follows:

The respondents expressed the opinion that the benchmarks appear to be a good and systematic analytical framework for proposing the health system reforms. It should be considered as a compulsory step to inform the provincial staff for system accountability.

Detailed items of each benchmark are suggestive rather than prescriptive because different provinces are facing different problems.

The assessment of provincial health care reforms

Context

Phayao and Yasothon are two of the five provinces that have been participating in the field research funded by the Health Care Reform Office, the MOPH and the EU since 1996. These provinces were selected as the sample because they have undertaken a full range of financing reforms by merging resources from the low income card scheme (LICS) and the voluntary health card scheme (VHCS). Phayao applies DRG (diagnosis related group) weights for budget allocation of the LICS plus VHCS under the global budget cap, while Yasothon uses a fund holding concept² under the budget cap (and also uses DRGs in determining the inpatient budget).

Phayao is a northern province with a high prevalence of HIV infection. The PCMO's main strategy for reform began with an emphasis on human resource development (called the attitude reform) aimed at making health development sustainable. All levels of personnel were mobilised to carry out the community diagnosis and to design health intervention programmes. This is a good basis for the problem solving process and ultimately for the health financing reform.

Phayao has agreed to merge the funds for the LICS and VHCS on the same administrative basis. Resources allocated for outpatient visits and inpatient care are predetermined according to the share of outpatient spending to the total. DRGs were introduced as a tool to allocate resources for inpatient care. Information from all hospitals in the province was used to provide options for resource allocation. Decision-making took account of the hard evidence as well as the soft managerial skills.

Yasothon is a northeastern province participating in the reform for more than 2 years. In terms of primary care, Yasothon adopts the concept of a fund holder with the health centre as the budget holder. In the account, each health centre is allocated the capitation budget according to the registered population. If the registered population of the subdistrict bypasses the health centre and goes directly to the hospital, money flows away from the health center, giving the signal that primary care should be strengthened to discourage this kind of bypass. This process provides transparency in resource allocation because it is based on agreed contracts and workloads, and is expected by the deputy PCMO to be sustainable because it is an evidence-based approach with participation from all levels of health services in the province.

Scoring

The scoring of the provincial health reforms was different from the scoring of MSH/HSRI proposal. Participants in the focus groups were asked to evaluate the total health development that occurred in the province during the past two years. Setting the situation in 1996 as status-quo (0), if the situation in 1999 is much better than in 1996, the highest score of +5 should be given. On the other hand, if the situation is much worse as compared to 1996, a score of -5 should be given. Table 3 shows that the average scores vary from +1 to +2 in both provinces, that is, the participants judged that the situation in 1999 was somewhat better than in 1996. Detailed scores by items and by subgroups of the focus group discussions are presented in the annexes.

-

² The fund holders will get the whole year budget at the beginning of the year according to the head count of the population (capitation budget), with reduction every time they refer the patient to other health facility. This model is created to discourage inappropriate patient referral.

Table 3 Average scores of the health system developments in Phayao and Yasothon

Benchmarks	Phayao*	Yasothon
1 Intersectoral public health	1.8	2.0
2 Financial barriers to equitable access	2.6	2.2
3 Non-financial barriers to access	2.7	2.0
4 Comprehensiveness of benefits and tiering	1.4	2.1
5 Equitable health financing	1.5	1.5
6 Efficacy, efficiency and quality of health care	2.1	2.0
7 Administrative efficiency	1.8	1.5
8 Democracy, accountability and empowerment	3.8	1.9
9 Patient and provider autonomy	1.6	0.8
Overall score	2.1	1.8

^{*} In Phayao, the scores presented are the average amongst 8 district health officers only

The highest score in Phayao was for Benchmark 8 - Democratic Accountability and Empowerment, and the lowest was for Benchmark 4 - Comprehensiveness of Benefits. Looking at the details in Annex 1 gives a rather different picture. The scores given by the PCMO were high for Benchmarks 1 - Intersectoral Public Health, 4 - Comprehensiveness of Benefits, and 7 - Administrative Efficiency. The differences occur because of different perceptions of the PCMO and the district health officers. The PCMO had much coordination with other sectors within the province, but this was little known to the district health officers. Furthermore, she thought that she put a lot of effort into ensuring the management of **HIV** problems be comprehensive and that services be accessible to all who need them regardless of ability to pay (reducing tiering).

The highest score in Yasothon was for Benchmark 2 Financial Barriers to Equitable Access, while the lowest was for Benchmark 9 Patient and Provider Autonomy. Since there were 3 levels of focus group discussions in Yasothon, the detailed scores in Annex 2 give very interesting results as view points from managers and providers can be illustrated. For Benchmark 2, the provincial health officers and the district health officers gave the highest score of 3.3 and 2.6 respectively, while the district hospital directors gave 0.8 (the highest score amongst the district hospital directors was 1.3 for the benchmark 6). The consensus was reached for the benchmark 9, because the three groups gave the lowest scores here (1.7 for the district health officers, 1.2 for the provincial health officers and –0.4 for the district hospital directors).

It is interesting that the scores for Benchmark 1-Intersectoral Public Health, were not low in either province when compared with the **MSH/HSRI** assessment. This score can be taken as the baseline to describe the extent of involvement with other sectors and how successful the involvement was.

Discussion

Researchers and managers at the national and provincial level agreed that the benchmarks can be used as a tool for policy analysis towards equity. Fairness covers a wider connotation than equity, so the Benchmarks of Fairness take into consideration equity, efficiency and accountability. However, when the Benchmarks are used in Thai, wordings and phrasings need to be clear and understandable. The contextual meaning of each item within each benchmark must be appropriate; e.g. housing, overcrowding index, health education vs health literacy, etc.

The benchmarks as a whole describe the health system reform, not merely health care reform. Benchmark 1 on intersectoral public health is a good introduction and provides

a way to connect health system reforms with other sectors like education, political, legal, social and natural resources. This corresponds with the ideas of the Thai thinker Wasi⁽¹³⁾ who describes that inequity in health is the sign and symptom of injustice in education, economics, politics, law, social services, culture, information and access to resources. A good public policy that addresses the importance of these issues can be more effective and more efficient in reducing inequity than the health care reform itself.

The benchmarks 2 to 5, Financial Barriers to Equitable Access, Non-financial Barriers, Comprehensiveness of Benefits, and Equitable Financing are inter-related and may benefit from collapsing into one or two benchmarks. Defining a benefit package explicitly in benchmark 2 will create a rigid frame of health delivery and may be harmful to the existing system because at the moment health services in public hospitals are delivered implicitly comprehensively to those who need them regardless of ability to pay. On the other hand, if we adopt a loose conceptual principle of equity 'to receive treatment according to health needs and finance according to ability to pay', it may be better in terms of providing flexibility to the manager in managing towards equity goals. Then the only two benchmarks required are as follows: 'the collective financing for equitable universal access' and 'the comprehensive health benefit according to needs'. Some research questions need to be answered: what are identified as the unmet needs of the uninsured, how tiering of the benefits lead to differential health outcomes, etc?

Because of time and information limitations, the scoring that was used to test these benchmarks involved a more subjective evaluation, rather than a more objective one that would have resulted had research materials been assembled to assist in scoring and rationale for the scores assigned been stated explicitly. The concept of assigning numbers to each item is intended to make the assessor's judgement more specific. Nevertheless, these numbers are not cardinal measures but qualitative judgments. Again, had the rationale been required, the basis for the qualitative ranking would have been clearer (and more objective). The score, in any case, is not the final goal of the exercise. Rather, it is the entry point for finding an explanation. In one focus group, a participant suggested that information should be gathered and researched before the scoring. However, it is not certain that objectively presented evidence will make all participants give the same score, since evaluation is still based on judgement after seeing whatever evidence is available. This role of judgement may be one reason why it does not make sense to force the participants to give explicit weights for each item and then average all the scores by the quantitative method. The interpretation of the obtained scores has to take into consideration the backgrounds of the assessors and the extent of knowledge they have about the reforms. Examples are obvious at the provincial evaluations. In Phayao, the PCMO's scores were different from the district health officers'. In Yasothon, the district hospital directors were the most sceptical group, given their independent views, while the provincial and district health officers were rather policy-biased.

Consider another example involving benchmark 8. This benchmark was scored in the context of the new 1997 Constitution, which supports the idea that local administration be given more responsibility with stronger accountability. The **MSH/HSRI** scores diverged between 2 assessors. One, with a law education, who is an outsider to the health system, gave a score of 5. The second, who had a medical education and was an insider to the system, gave a score of 3. The Phayao PCMO gave a moderate score (3) on the achievements under her leadership, assigning no progress (score 0) on fair grievance process and privacy protection. The district health officers gave the highest score (3.8), expressing their satisfaction about transparent resource allocation, while noting less satisfaction with privacy protection. In Yasothon, three groups of assessors were satisfied with the transparent resource allocation process and global budgeting, but not with the

compliance with rules and laws. The non-consensus item should then be further explored to improve the achievements further. If the exercise had involved explicit statement of rationale for the scores, then a basis for deliberating among these disagreements would be clearer.

One reason for thinking the scoring in this exercise may be problematic is that the process was totally based on the individual's own judgement. Participants were forced to score each benchmark after a discussion that intended to help them reach the same level of understanding, but they did not have access to hard evidence from the province gathered specially for purposes of scoring. Nevertheless, the scoring by participants was based on the evidence each of them had acquired through their experience with health in the province, and they interpreted that evidence to make it relevant to items on each benchmark. Wider variations of the scores were observed in Yasothon because the average scores were taken from 3 different groups. The lowest overall scores were given by the district hospital directors, who were the most independent group and the closest to patients. The highest scores were from the provincial health officers, who were the closest to the policy making process in the province.

A new benchmark 'Information System for Equitable Decision Making' was proposed at the MSH/HSRI discussion. This is to give a strong emphasis to the information system, and at the same time, to reduce the emphasis on the first part of the benchmarks by collapsing the benchmark 2 with 5, and 3 with 4. Within this new benchmark, the information system should be established as the key mechanism for monitoring, negotiating, providing insights on problems and sharing opportunity for decision making. Subheadings of the benchmarks 1 and 6 on information system could be moved to this new benchmark. This modification emphasises that good information is a mechanism for improving consciousness of problems, and it is necessary to guide the options for decision making. The information system should include people's perspectives, economic, and health issues, and be regularly reported to the public.

Collapsing some of the benchmarks, e.g. the benchmarks 2 and 5, and 3 and 4, was an issue raised in one focus group discussion. Table 4 shows that collapsing these benchmarks could make the final benchmarks stronger because the original benchmarks share the same issues. This modification would also leave more room for a benchmark devoted solely to the information system. Looking at the scores may help us evaluate these suggestions.

The scores for benchmarks 2 and 5 were rather convergent when assessing the **MSH/HSRI** proposal (Table 2), but they diverged when reforms were assessed at the provincial levels (Table 3). This difference reflected different aspects of looking at the financial barriers to health care. The benchmark 2 focuses on the schemes to cover people in formal and non-formal sectors, but the benchmark 5 focuses at the sources of finance and how equitable those sources are. The divergence in scoring suggests it is better to retain both benchmarks.

Table 4 The issues addressed by the benchmarks

Issues	Ι	II+V	III+IV	VI	VII	VIII	IX	X
Intersectoral public health								
Political	++	+			++			+
Economic		+++				+	+	+++
Cultural	+		++			+		+
Social services	++							++
Education	+++							++
Information	+			+				+++
Legal	++					++		+
Resource use	++					++		++
Demand side								
Pre illness	++	+++		++			++	++
Illness		+	+++	++	++		++	++
Supply side								
PHC			++	+++	+	++	++	+
Referral centre			++	++	+++	++	++	++
People's perspectives	+++					+++	++	+++
Community participation	++	+	+	+++		++		++
Training								
Volunteer			+	+				+
Professional			++	+++		++		++
Continuous education			++	+++				++

The scores for benchmarks 3 and 4 were more convergent when assessing the **MSH/HSRI** proposal and Yasothon's achievements, but they diverged in the assessment of Phayao's achievements, but they diverged in the assessment of Phayao's achievements. In principle, benchmark 3 focuses on the distribution of health resources and access to health services, regardless of geographical, cultural and social factors. The benchmark 4 focuses on the benefit package and the idea that all people with the same health needs should get the same service with no tiering. Again, these two benchmarks need to be separate, as they are.

The use of the benchmarks as a tool for drafting the provincial health development proposal is promising. When the new PCMO comes to the province, he or she should be required to draft a provincial proposal within 3 months, using the benchmarks as a guide for analysis. The proposal should then be reviewed by the members of the Provincial Health Board (a transformed provincial health office as proposed by the TA team of **MSH/HSRI**) and the health civil societies, also by using the benchmarks. The use of the benchmarks will make the direction of health developments in all provinces clearer. If this idea is acceptable, there should be a training course for both the leaders and the members of health communities to understand the principles of the benchmarks.

The usefulness of the benchmark at the national level is demonstrated by the assessment of the **MSH/HSRI** proposal. The benchmarks identified the strengths and weaknesses of the proposal (see the list of weaknesses under recommendations). Since the **MSH/HSRI** proposal was too big to be implemented when the reports came out in May 1999, mechanisms for the medium term reforms were proposed in the national meeting on health care reform in December 1999. If the health system reforms are to be taken up by the forthcoming bodies to draft implementation plans, weaknesses identified by the benchmarks should be considered.

Recommendations

Equity should be specified explicitly in the national health development goals. Within the specified policy framework, the Benchmarks of Fairness can be used as a mechanism for policy analysis at the national and provincial health development.

Before adopting the Benchmarks, the Thai language terminology should be carefully evaluated. Each item of the benchmarks must be supported with examples and information for better comprehension, before it can be used to subjectively value the proposal.

The benchmarks are better used as tools to assess the proposal to see the appropriateness of the content of policy rather than to assess the implementation of the policies. The use for evaluating the achievements of the **PCMO** after working in the province for some years should be cautious. The interpretation on the score has to take into consideration the background and knowledge of the assessors.

For the medium-term health system reforms, it is recommended that a new proposal be strengthened to overcome the weaknesses identified by the benchmarks:

- Intersectoral public health needs to be addressed.
- The unmet needs of the uncovered populations should be identified in order to guide the draft the basic health package.
- Dimensions of gender, socio-culture, ethnicity should be explored.
- The tiering of health benefit should be identified on evidence.
- The simulation of Kakwani index can be tried out giving different rules of copayments to see the effects of progress toward of health care financing.
- Mechanisms should be specified in order to link the evidence-based practices with health financing.
- Mechanisms to reduce duplication of administration at the centralised and decentralised levels should be identified.
- Fair grievance process and adequate privacy protection are to be addressed.
- Mechanisms to ensure that the provider autonomy will not be maligned to the system.
- The information systems to help monitor, negotiate and make fair decisions should be identified.

Acknowledgments:

This study was initiated by Professor Norman Daniels of Tufts University to test the idea of expanding the concept of Benchmarks of Fairness for Health Care Reform to evaluate health sector reform in developing countries. The framework has been adapted by workshops in Mexico, Columbia, Pakistan and Thailand since early 1999. The workshops were funded by the Rockefeller Foundation. This report is the result of applying the new framework to evaluate health system reform proposals and reforms through field research in Phayao and Yasothon provinces. The authors would like to thank Dr Somsak Chunharas, Director of the Health Policy and Plan Bureau, Ministry of Public Health (MOPH), Dr Sriracha Charoenpanich, Associate Professor of Sukhothai Thammathiraj Open University, and Dr Paibul Suriyawongpaisal, Associate Professor of Faculty of Medicine Ramathibodi Hospital, Mahidol University, for their comments against the integrated health system reform proposal of the Management Science for Health/Health System Research Institute. Thanks also go to Dr Patchsri Sirinirund, Provincial Chief Medical Officer (PCMO) of Phayao and her staff and Dr Prakai Wibulwipa, Deputy PCMO of Yasothon and his staff at the provincial and district levels. The substance of the paper has been made richer by workshop with Professor Norman Daniels, Professor John Bryant, Associate Professor Bazmi Inam, Assistant Professor

Kaemthong Intaratana, Dr.Vijj Kasemsap, Ms.Waranya Teokul and Mr.Sanga Intajak. The final paper is improved due to the comments made by respectable reviewers. Thanks must be given to the Health Care Reform Office of the MOPH funded by the EU. Finally the authors appreciate the financial assistance provided by the Health Systems Research Institute and administrative assistance from the National Health Foundation.

References

- 1. Daniels, N, Light, D, Caplan R. **Benchmarks of fairness for health care reform.** New York: Oxford University Press, 1996.
- 2. Health Care Reform Office. **Health care reform project.** The joint project between the Royal Thai Government and the European Union. Nonthaburi: Ministry of Public Health, 1997.
- 3. Management Science for Health and Health Systems Research Institute. **Final Integrated Report.** Nonthaburi: HSRI, ADB#2997-THA, 1999.
- 4. Management Science for Health and Health Systems Research Institute. **Health financing in Thailand.** Nonthaburi: HSRI, ADB#2997-THA, 1999.
- 5. Management Science for Health and Health Systems Research Institute. **Hospital autonomy in Thailand.** Nonthaburi: HSRI, ADB#2997-THA, 1999.
- 6. Management Science for Health and Health Systems Research Institute. **Human resources for health.** Nonthaburi: HSRI, ADB#2997-THA, 1999d.
- 7. Management Science for Health and Health Systems Research Institute. **Referral system.** Nonthaburi: HSRI, ADB#2997-THA, 1999.
- 8. Whitehead, M. The concepts and principles of equity and health. *Int J Health Serv* 1992;22: 429-45.
- 9. Dahlgren, G, Whitehead M. Policies and strategies to promote social equity in health. Stockholm: Institute of Future Studies, 1991.
- 10. Braveman, P. Monitoring equity in health: a policy-oriented approach in low-and middle income countries. Geneva: World Health Organization, 1999.
- 11. Daniels N, Bryant J, Castano RA, et al. Benchmarks of fairness for health care reform: a policy tool for developing countries. *Bull World Health Organ* 2000. (in press).
- 12. Rehnberg C, Pannarunothai S. **Equity of health care financing in Thailand.** A research report to the Swedish-Thai Collaboration in Health System Development, 1998.
- 13. Wasi P. The Keynote Speech for the Seminar on Indicators for Health Equity in Thailand. 22 March 1999 at Sol Twin Towers Hotel, Bangkok, the National Health Foundation, 1999.

Annex 1 Scoring of Phayao achievements against the Benchmarks

Benchmarks	PCMO	DHO (8)	SD	Mode	Median
Benchmark 1 Intersectoral Public Health	4	1.8	0.8	2.0	2.0
1.1 Increased percent of population coverage	4	2.0	1.4	3.0	3.0
1.2 Development of information infrastructure	2	1.3	1.0	2.0	1.5
Benchmark 2 Financial barrier to equitable access	0	2.6	1.2	3.0	3.0
1. Non-formal sectors	0	2.8	0.7	3.5	2.8
Universal coverage for the basic package	0	3.3	0.9	4.0	3.5
Portability of coverage	0	2.4	1.1	3.0	3.0
2. Formal sectors	0	1.5	2.4	3.0	2.0
Benchmark 3 Non-financial barrier to access	0	2.7	1.0	3.0	2.8
Distribution of health resources	0	2.8	1.3	4.0	3.0
Gender (may be sensitive for the minority group)	0	2.0	1.6	2.0	2.0
Cultural, beliefs, attitude to disease, reliance on traditional healers	0	2.3	1.2	2.0	2.0
Benchmark 4 Comprehensiveness of benefit and tiering	4	1.4	1.5	_	1.3
All effective and needed services deemed affordable and no exclusion list	4	1.9	1.6	-	2.0
Reforms reduce tiering and increase uniformity	3	1.6	1.5	1.0	1.0
Benchmark 5 Equitable financing	0	1.5	1.1	1.0	1.0
Benchmark 6 Efficiency and quality of care	3	2.1	1.2	3.0	1.8
Emphasis on primary care and increased acceptability to primary care	5	2.6	1.4	4.0	3.0
Evidence-based clinical outcome	4	1.9	1.6	1.0	1.5
Community participation in evaluating quality of service	0	1.6	1.2	2.0	2.0
Measure for accreditation of plan and hospitals	2	1.3	1.8	1.0	1.0
Continuing education	0	1.5	1.3	1.0	1.0
Benchmark 7 Administrative efficiency	4	1.8	1.0	2.0	2.0
Minimise administrative overhead	0	2.1	1.5	3.0	3.0
Cost reducing, purchasing	4	1.6	1.4	2.0	2.0
Reduce cost shifting from one to another scheme	0	1.1	1.3	2.0	1.0
Minimise fraud and abuse, inappropriate incentives	3	1.1	0.9	2.0	1.0
Benchmark 8 Democratic accountability and empowerment	3	3.8	0.8	3.0	3.8
Evaluation process with public reports	2	3.1	0.9	4.0	3.0
Transparent and rational resource allocation	5	3.7	1.1	4.0	4.0
Global budgeting	5	3.2	1.3	3.0	3.0
Fair grievance procedures	0	1.9	2.5	4.0	2.0
Adequate privacy protection	0	1.7	2.1	4.0	1.5
Credentials and accreditation	2	3.0	1.3	4.0	3.5
Compliance with rule and law	0	2.3	1.4	3.0	2.5
Strengthening civil society	4	2.5	2.1	5.0	2.0
Benchmark 9 Patient and provider autonomy	2	1.6	1.5	1.0	1.0
Degree of consumer choice	1	2.3	1.5	1.0	2.0
Degree of practitioner autonomy	0	2.0	1.4	1.0	1.5
Overall score	2-3	2.1	0.7	2.0	2.0

Remark; PCMO is the score given by the provincial chief medical officer, DHO is the score given at the group discussion of 8 district health officers. There is no discussion among the medical directors of the district hospitals in Phayao.

 $\label{lem:control_equation} Annex\ 2\ Scoring\ of\ Yasothon\ achievements\ against\ the\ Benchmarks$

Benchmarks	Mean	SD	Mode	Median	PHO (5)	PHO, sd	DH (8)	DH, sd	DHO (10)	DHO, sd
Benchmark 1 Intersectoral Public Health	2.0	1.5	1.6	2.5	3.0	0.9	0.5	0.6	2.4	0.8
1.1 Increased percent of population coverage in	1.6	1.6	0.8	1.6	2.1	1.8	0.2	0.5	2.5	0.8
Basic nutrition	1.9	1.5	0.0	2.0	2.8	1.3	0.3	0.5	2.8	0.8
Housing, crowding, homelessness	1.5	1.6	0.0	1.0	1.6	1.8	0.3	0.5	2.4	1.5
Environmental sanitation	2.0	1.4	1.0	2.0	2.8	1.6	0.6	0.9	2.8	0.6
Education and health education	1.7	1.8	4.0	2.0	2.2	2.5	0.4	1.1	2.6	1.2
Public safety and violence reduction	0.8	1.9	-1.0	1.0	1.0	2.8	-0.5	0.8	1.7	1.4
1.2 Development of information infrastructure	2.3	1.5	1.0	3.0	3.6	0.5	0.7	0.5	2.8	1.4
1.3 Intersectoral effort to improve social determinants	2.1	1.3	3.0	3.0	3.6	0.5	0.9	1.0	2.4	0.8
Benchmark 2 Financial barrier to equitable access	2.1	1.3	3.0	2.1	3.3	0.8	0.8	0.6	2.6	1.1
1. Non-formal sectors	2.2	1.6	4.0	2.0	3.7	0.3	1.5	1.7	2.1	1.5
Universal coverage for the basic package	2.7	1.4	4.0	3.0	3.8	0.4	1.8	1.7	2.9	1.0
Portability of coverage	1.7	2.2	4.0	2.0	3.6	0.5	1.3	1.8	1.0	2.6
2. Formal sectors	2.1	1.6	3.0	2.3	3.0	1.4	0.4	0.6	2.9	1.0
Coverage for enrolling in the scheme	2.0	1.7	0.0	2.0	3.0	2.1	0.6	0.7	2.6	1.4
Family coverage	2.7	1.7	4.0	3.0	3.8	1.1	0.8	1.0	3.7	0.9
Benefit coverage of each scheme	1.5	1.8	0.0	2.0	2.2	1.5	-0.3	0.9	2.5	1.4
Benchmark 3 Non-financial barrier to access	2.0	1.4	1.0	2.0	3.5	1.2	0.7	0.8	2.4	0.8
Distribution of health resources	2.1	1.2	3.0	2.0	3.4	0.5	1.5	1.3	1.9	0.9
Gender (may be sensitive for the minority group)	2.0	1.9	0.0	2.0	3.6	2.1	0.1	0.4	2.6	1.3
Cultural, belief, attitude to disease, reliance on traditional healers	1.7	1.9	2.0	2.0	3.0	1.4	0.3	1.4	2.2	1.9
Benchmark 4 Comprehensiveness of benefit and tiering	2.1	1.4	1.0	2.0	3.5	0.6	0.8	1.0	2.4	1.1
All effective and needed services deemed affordable and no exclusion list	1.7	1.7	2.0	2.0	3.4	0.9	0.5	1.1	1.7	1.8
Reforms reduce tiering and increase uniformity	2.4	1.4	3.0	3.0	3.6	0.9	1.3	1.0	2.8	1.1
Benchmark 5 Equitable financing	1.5	1.4	1.0	1.3	1.9	1.5	0.3	0.8	2.3	1.2
Government financing to schemes according to ability to pay	1.9	1.8	1.0	2.0	3.2	1.6	0.1	1.0	2.6	1.3
Paying premium, household pay according to ability to pay	1.6	1.8	2.0	1.5	3.0	2.1	0.0	1.0	2.0	1.3
Proportion of revenue reliance from out of pocket payments	0.8	1.7	1.0	1.0	-0.8	2.8	0.8	0.9	1.7	1.1

Annex 2 Scoring of Yasothon achievements against the Benchmarks (cont.)

Benchmarks	Mean	SD	Mode	Median	PHO (5)	PHO, sd	DH (8	DH, sd	DHO (10)	DHO, sd
Benchmark 6 Efficiency and quality of care	2.0	1.5	1.0	2.0	3.0	1.0	1.3	1.7	2.1	1.2
Emphasis on primary care and increased acceptability to primary care	2.3	1.7	1.0	2.0	4.0	0.7	1.3	1.8	2.4	1.3
Evidence-based clinical outcome	2.2	2.1	3.0	2.0	3.4	1.3	1.5	1.9	2.1	2.5
Community participation in evaluating quality of service	1.5	1.6	1.0	1.0	1.6	1.7	1.1	1.9	1.7	1.6
Measure for accreditation of plan and hospitals	1.9	1.4	2.0	2.0	2.4	1.3	1.6	1.7	1.8	1.1
Continuing education	2.2	1.7	1.0	2.0	2.8	1.5	1.3	1.8	2.7	1.6
Benchmark 7 Administrative efficiency	1.5	1.3	1.0	1.2	2.7	1.6	0.7	1.1	1.5	0.7
Minimise administrative overhead	1.3	1.5	2.0	2.0	1.6	2.1	0.8	1.6	1.7	1.2
Cost reducing, purchasing	1.7	1.5	2.0	2.0	3.4	1.1	1.1	1.1	1.3	1.3
Reduce cost shifting from one to another scheme	1.2	1.4	1.0	1.0	2.6	2.1	0.8	0.7	0.8	1.1
Minimise fraud and abuse, inappropriate incentives	1.5	1.7	1.0	1.0	3.2	1.8	0.4	1.3	1.6	1.3
Benchmark 8 Democratic accountability and empowerment	1.8	1.1	3.0	1.9	2.8	1.1	0.9	0.8	2.1	0.7
Evaluation process with public reports	1.0	1.1	1.0	1.0	1.2	1.3	0.3	1.2	1.5	0.7
Transparent and rational resource allocation	2.3	1.6	2.0	2.0	4.2	0.4	1.3	1.3	2.2	1.3
Global budgeting	2.2	1.4	2.0	2.0	3.2	1.1	1.3	1.0	2.4	1.3
Fair grievance procedures	1.6	1.3	2.0	2.0	2.2	1.8	0.9	0.6	1.8	1.2
Adequate privacy protection	1.9	1.4	1.0	2.0	3.2	1.6	0.8	0.9	2.2	0.9
Credentials and accreditation	2.2	1.3	1.0	2.0	3.0	1.2	1.6	1.5	2.2	0.9
Compliance with rule and law	1.7	1.6	0.0	2.0	3.0	1.9	0.4	1.0	1.9	1.1
Strengthening civil society	1.4	1.2	1.0	1.0	2.2	1.5	0.6	0.5	1.7	1.1
Benchmark 9 Patient and provider autonomy	0.8	1.4	0.5	1.0	1.2	1.3	-0.4	1.3	1.7	0.7
Degree of consumer choice	0.5	1.9	1.0	1.0	-0.4	2.5	-0.1	1.4	1.5	1.6
Degree of practitioner autonomy	1.3	1.9	0.0	1.0	2.8	1.9	-0.6		2.0	0.8
Overall score	1.8	1.1	3.0	1.7	2.8	0.9	0.6	0.6	2.2	0.7

PHO is the score given at the group discussion of provincial health officers with 5 members including the deputy PCMO. DH the discussion of 8 district hospital directors and DHO the discussion of 10 district health officers.