文 願相

一次保健事業을 위한
情報システム 開發

Ⅰ. 緒 論

一次保健事業(Primary Health Care)은 地域社會의 健康問題을 해결하기 위하여 地域
社會 住民의 스스로의 참여와 自助精神에 입각하여 가장 실질적이고 과학적인 방법으로 地
域社會내의 모든 個人과 家庭이 일차적으로 保健醫療 서비스에 쉽게 접근할 수 있도록 하
는 制度이다. 따라서 1次保健事業은 地域社會의 종합적인 社會· 경제발달의 하나로 추출
할 것을 강조하고 있으며 국가의 醫療保健시스템의 중요한 한 부분이다.

우리나라 憲法에는 「모든 國民은 健康에 관하여 國家의 保護를 받는다」라고 규정하고 있
으며 世界保健機構는 서기 2000년까지 모든 사람에게 健康을 보장하고자 주장하고 있다.

그러나 우리의 醫療現象은 醫療産業이 大部分 民間에 의존하여 自由市場 原則에 따라
成長하여 왔기 때문에 구애력이 있는 大都市 地域에 전중하고 있으며 所得水準의 差異라든가
地域間 差異를 빠나 모든 國民에게 고품의 醫療혜택을保障하는 保健醫療의 均等이라는
問題는 우리가 해결해야 할 중요한 講題의 하나이다.

醫學의 公益性을 높이고 國民保健保障의 基盤性を 위해서는 醫療制度의 改革과 함께
농어촌지역을 중심으로 한 1次保健醫療事業의 重要性이 추구되다고 보겠다.

지금 세계 각국은 그들 나름대로의 社會· 경제적 개발수준과 국가보건정책에 따라 1次
保健事業의 開發에 역점을 두고 있으며 1次保健事業의 效率의 推進을 위하여 保健情報シ
ステム의 開發 역시 중요한 講題가 되고 있다.

本考에서는 1981年 10月 24日부터 11月 8日까지 世界保健機構(WHO)가 主催했던 「1次
保健事業의 情報システム 開發」이라는 월간에서 논의되었던 몇 가지 講題들에 대하여 言及하
고자 한다.

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地域 사회 保健情報의 必要性

地域社会 保健情報は 地域 住民の 健康状態, 地域社会への 被用されている 保健サービス에 관
한 情報이다. 地域 住民이 가지고 있는 基本적인 保健問題가 무엇이고 그들이 현재 어떤 상
태에 있으며 현 상태를 개선하여 보다 바람직한 상태로 이끌어 가기 위해서는 무엇 事業이
 얼마나만으로 필요할건가? 등에 관한 지식은 地域社会 保健情報시스템을 통하여 패악되어야
한다. 그러나 保健情報시스템 자체는 問題의 解決책을 제공한다고 가는 問題 解決를 위
한 적절한 수단에 대한 선택을 가능케 할 수이다.

地域社会・保健情報システムの 開發에 있어 基本적으로 고려되어야 할 事項은 아래와 같다.

첫째, 地域社会内의 모든 個人과 家庭에 대하여 그들의 健康水準을 파악할 수 있는 資料
가 開發되어야 한다. (例：個別 家庭마다 健康記録カード 作成)

둘째는 地域社会가 당면하고 있는 여러 가지 保健問題가 무엇이고 우선순위로 보아 무엇
이 가장 중요한가를 파악할 수 있는 資料が 開發되어야 한다. 住民들이 가장 필요하다고
인식하고 있는 保健醫療 서비스가 무엇인가를 파악하여야 한다.

셋째는, 地域社会가 필요로 하는 サービスを 計劃하고 計劃에 따라 作成한 事業開発 전
략과 수단을 강구하는데 필요한 資料가 開發되어야 한다. 事業目標を 計量的으로 설정할
수 있도록 地域社会의 社会・経済的 背景と 保健事業의 人力と 施設 및 地域住民の 醫
療需要가 파악되어야 한다.

넷째, 地域社会가 推進하고 있는 모든 1次保健事業들은 事業의 執行, 管理와 対応하여
모든 活動을 조정・통제할 수 있는 資料가 開發되어야 한다. 여기서 조정・통제하 함의 事
業を 執行하고 事業의 内容と 方向을 決定하는 事業が 計劃된目標과 審査得べし 實績間에 差
異가 생겼을 때 이를 解決하기 위하여 事業의 内容과 方向을 수정하여 新しい 人力を 募入
하는 것을 말한다. 毎 一定期間마다 모든 事業活動들에 対応하여 経過した目標と 實際로 이
得된 實績値を 調整할 時だと言われる. 만약 기대치와 實際치 간에 差異가 생겼다면 그 理由が 何
이이며 이를 解決할 수 있는 方案은 무엇인가 등을 찾아내는데 필요한 資料가 開發 되어야
한다.

다섯째, 事業의 評価는 短期적인 構築에서 事業計画에 대한進度 評価 뿐만 아니라 事業
의 長期的 優秀を 確定할 수 있는 評価指標が 開發되어야 한다.
Ⅲ. 情報體系는 어떻게 개발되어야 하는가?

1次保健事業은 效率的으로 推進하기 위하여 수립되어야 할 情報體系는 첫째, 計劃(Planning)과 具體的인 事業內容(Programming) 그리고 事業管理(Management)을 연결하는 情報流通의 「메카니즘」(Mechanism)이 확립되어야 한다. 各級 수준의 사업담당자들은 事業組織體系 내에서 수직적인 情報流通은 물론 수평적인 情報流通이 가능해야 한다. 또한 情報體系의 開発은 組織의 指導活動(Supervision)을 보장할 수 있도록 되어야 한다. 指導活動이란 미리 定義한 業務指針대로 事業活動을 유도해 나가는 過程이며 일종의 職務訓練(In-service training)이고 기술적으로 상급위치에 있는 사람이 하급자의 업무를 개선시키기 위한 教育적인 활동이다. 따라서 1次保健事業의 추진과 함께 記錄管理, 報告 등 일련의 情報體系는 指導活動과 직결되어야 한다.


다음으로 중요한 事項은 資料의 標準化, 用語的 定義, 分類와 관련된 問題이다. 1次保健事業은 때로는 혼란수준이 낮은 요원을 活用해야 되기 때문에 그들 수준에서 記錄을 作成하고 報告할 수 있는 記録・報告의 標準化된 指針書가 作成되어야 한다.

마지막으로 강조되어야 할 等은 情報システム에 있어서의 還流(Feed-back) 問題이다. 還流되는 情報의 内容이 매우 중요하다. 필요없는 資料의 還流는 낭비에 불과하다. 그들에 당연한 問題, 決定해야 할 問題에 대하여 決定에 도움이 되고 活用될 수 있는 情報의 資料가 還流되어야 한다. 情報의 流通은 一方의이어서는 그 效果가 적으며 計劃과 執行이 서로 연 결되며 組織의 上・下가 서로 연결되는 還流機能이 구축되어야 한다.
Information System Development for Primary Health Care

Hyun Sang Moon*

I. Introduction

Following the Alma-Ata declaration on Health for All by year 2000, many developing countries have formulated policies for action to launch Primary Health Care program. Primary health care is essential health care based on practical, scientifically sound and socially acceptable methods and technology made universally accessible to individuals and families in the community through their full participation and at a cost that the community and country can afford to maintain at every stage of their development in the spirit of self-reliance and self-determination. It forms an integral part both of the country’s health system, of which it is the central function and main focus, and of the overall social and economic development of the community. It is the first level of contact of individuals, the family and community with the national health system bringing health care as close as possible to where people live and work, and constitutes the first element of a continuing health care process.\(^1\)

Health is an essential element of socio-economic development policy in Korea. According to our constitution, it has stressed the importance of expanding the accessibility of health care services. However, the organization of health care delivery is noticeably underdeveloped in Korea.\(^2\) The current health care system is far from being an integrated system in which needs and allocation of resources are closely coordinated. The bulk of health services are supplied through the mechanism of the free market. The expansion of the health care delivery capacity in the pst has relied almost entirely on increasing hospital beds in the private sector.

In order to strengthen the public medical services, the Ministry Plans to renovate

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* Senior Research, Korea Institute for Population and Health.
1) WHO, “Health for All by the year 2000 — Global Strategy”.
2) Chong Kee Park, “Financing Health Care Services in Korea”.
facilities and equipment in city and provincial hospitals and health centers and sub-centers which play a central role in providing primary care.\textsuperscript{31}

The importance of health information system, in order to plan, implement, control and evaluate primary health program is nowadays accepted by all. Effort have been made in many countries to improve and adapt the existing health information to the needs.

II. Community Health Information System

Relevant community health information comes from two parts, population and health services. The element derived from these two parts lead to the knowledge of existing situation, desired situation, needed interventions, performed activities. However, information system itself does not provide solutions for community health problem but it assist in their adequate selection of strategies.

Community health information system is useful for 1) monitoring individual and family care, 2) identifying and understanding the health problems of community, 3) planning and operating the necessary services, and 4) evaluating services and impact.

Development and implementation of primary health care activities must be preceded by a careful diagnosis of the problems and assessment of what is needed and what is feasible at the community level. Through the development of information system, it is necessary to know about the real and perceived health care needs. Health information system is needed for a clear formulation of development policies and strategies. To take into account the contribution of other sectors to attain the goals and to determine clear objectives within the context of primary health care policies, relevant information collection system should be developed.

It is essential to improve managing and operating of primary health care activities through periodical observation on selected activities and comparision of expected and observed values. Therefore, in order to design the primary health care component of any health care delivery system, at least four groups of activities have to be carried out:

\textsuperscript{31} Ministry of Health and Social Affairs, "National Policy for Health, Social, Labor and Environment Affairs".
1) determination of areas of responsibility of each community health worker, 2) local programming of activities, 3) registration, processing and reporting of activities performed, and 4) supervision, monitoring and control.

Since supervision, monitoring and control function is feasible through the existence of an information system, the meaning assigned to each one of them is following: supervision is an activity of inservice training aimed at maintaining or improving the pre-established standards on selected actions. It is a teaching activity with direct and personal relationship between trainer and trainee, in which with a higher degree of knowledge reorient the actions of each member of health worker.

Monitoring is a process of periodical observation of selected activities, in which expected and observed values are compared in order to assure a smooth evolution of the project. If discrepancies of practical value are detected between programmed and performed activities, then it is necessary to identify the responsible causes in order to better orient the managerial decision making process of the program.

Control action is an activity performed by a decision-maker aimed at modifying the course of certain operations of the system or the magnitude and/or type of its inputs. Its objective is to assure that the observed values be equivalent to the programmed ones.

III. Factors Included in Information System Development

Appropriate organization for selecting, recording, reporting, processing, and using the information for the health and related services are the most important element in the design of primary health care information system.

Mechanisms to coordinate the areas of planning, programming, management and other services should be established. Permanent enquiries by the community health workers and regular activities of health services, stimulation and motivation, contacts between health workers and health services at higher echelon are relevant factors for the improvement of the mechanisms of information system.

Another aspect of information system is process of accessing needs and deciding about content of information system. To be an effective information system the following problems should be reflected into the information system.
1) Basis for decision about information content
   — objectives, targets, milestones, activities . . .

2) Dialogue between users and producers in order to determine the appropriateness on
   the feasibility in the procedure of accomplishing the content of the information
   system.

3) Data collected should be relevant.

4) Information collected at the local level should reflect the important tasks and ac-
   tivities undertaken or that level.

5) Information on the activities of other organizations at community level.

   In primary health care, as it exists in many countries, it has been necessary to train
lay persons to serve as providers of care. These persons are practically trained in

disease recognition and care procedures. Nevertheless, they lack training in the
systematic health and medical sciences and their range of competence in medical and
health semantics is limited and the range of problems they treat is also limited. For the
use of such persons, it may be desirable to develop and abridged or condensed version of
a large classification, coding scheme for the development of a good functional health in-
formation system.

   In primary health care information system, there are six principal sources of inform-
ation:

1) Records
   — resulting from the community health worker’s enquiries
   — resulting from the activities of health personnel and local health team and
     established according to their functions.

2) Home-based records (e.g. family sheets),

3) Reports on work formed.

4) Surveys (for community purposes),

5) Registers for primary health care activities, and

6) Ad-hoc reporting of emergency problems

   For the processing and use of information, particularly the following topics should be
considered:

1) To promote effective use of information by health workers and community at the
local level.

2) Use of records as a basis for the delivery of health services.

3) Processing of information to be used by next higher echelon of monitoring and supervision and information to be forwarded to higher echelons according to needs.

4) Analytical review — health status, health services delivered, main health problems detected, types and quantities of resources supplied and needed, work performed, manpower requirements.

5) Presentation of information in forms which are usable by decision, and

6) Decisions for the solution of the problems that can be dealt with locally.

Increasing effort has been devoted to management of record system. A first step in planning a record system is to document answers to the following questions.

1) Who are the users: For example, primary health worker (PHW), PHW supervisor.

2) What types of decisions need to be made and with what frequency? For example, the PHW should decide each time a child is seen whether growth and development are satisfactory. PHW supervisor may need to know on monthly basis if children are being followed as scheduled.

3) What data elements must be entered to produce the information? For example, weight, weight-age standard, visits programmed, visits accomplished.

4) What is the sources of the data and how are they to be collected?

Finally, feedback is one of the most important element in the development of information system. Feedback should reflect real progress and impact on problems in achieving local primary health care goals and its should be provided with adequate content in an appropriate form at proper time and level of decision.