韓國人口學會誌 第十六卷 第一號 (1993)
The Journal of The Population Association of Korea, Vol. 16, No. 1(1993)

Integration, Monitoring and Evaluation of Population Programmes for 21st Century

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Ⅰ. Background

East Asian countries and areas such as China, Republic of Korea, Hong Kong and Taiwan province of China and South-east Asian countries such as Thailand and Singapore have achieved a rapid fertility decline in the short span of two decades. However, the fertility transition in these countries and areas is not comparable to the earlier experiences of the developed world, particularly Europe, for two reasons : (a) the earlier fertility transition was achieved without government sponsored family planning programmes, and (b) no modern contraceptive technology was available at that time.[1] In fact, individual family planning efforts in Europe met with resistance, for varying reasons from both clergy and State. East Asian countries and areas, in contrast, provide a different set of experiences. Rigorously and effectively implemented government-sponsored family planning programmes along with rapid industrialization and modernization helped these societies reach replacement levels. Since the fertility transition phenomenon was a long strived for objective of population experts and family planning programme administrators and since the delineation of causal factors would be of immense help to those countries which are still at a considerable distance from this goal, demographers have understandably concentrated on fer-

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tility transition theories.

The transition theories have attributed the shifts from natural to controlled fertility either to cultural changes, or to rising costs of children or to structural transformations at family level[2]. While some have concentrated on grand theories, many armed with data sets from numerous fertility surveys, concentrated on the proximate determinants or middle range theories[3]. These attempts, although they provided insights into transition processes from various perspectives, have led to a relative neglect of analysis of the consequences of fertility transition.

Fertility transition has a series of consequences to socioeconomic life styles and life chances on one hand and population policies and programmes, on the other. Freedman[4] after reviewing the demographic transition in Taiwan province of China has suggested a series of policy options in regard to family planning programmes. He also emphasized the need to look into and re-set the research priorities to suit the changes in social policies. In a similar attempt, Leete and Alam have examined the consequences of fertility transition on family structures, kinship relations, education, and old age population[5].

The primary objective of this paper is not to look into the consequences of the fertility transition on the socio-cultural and economic spheres of life and population policies and programmes, but to discuss monitoring and evaluation systems that need to be in place given the changed circumstances. However, the monitoring systems cannot be discussed in isolation, since the efforts to design and implement such systems should be based on new programme priorities. This paper, therefore assumes likely posttransition period socio-economic conditions, the new programme directions and dwells on monitoring and evaluation systems.

II. Consequences of Fertility Transition

Based on available literature, the fertility transition consequences can be broadly generalised[6]. The following are the likely changes in socio-economic conditions though the magnitude, speed and dimensions of their changes are not yet clear.

1. Family types and structures will undergo radical changes. Joint and extended families will be replaced by nuclear families : large-size families, by small size units : and intensive ties between family members, by less inter-dependent relationships.

2. The age structure of the population will change drastically. In societies where the fertility transition occurred in a fluctuating pattern, the generation sizes will fluctuate and in societies where the transition was uniform, the generation sizes will gradually decrease.

3. While the number of young dependents will decrease, the number of old dependents will increase due to higher life expectancy levels achieved through better quality of life and medical care facilities.

4. As a result the number of old age people will increase, but the old-age security systems, based on traditional institutions, will crumble.

5. School enrolment will decrease although literacy becomes universal. School systems, in terms of number of schools, their location and

infrastructure, will require some radical re-structuring and re-orientation, as the rapidly growing economies and technological adv - ancements will require a skilled labour force of high quality. The emphasis, therefore, will shift from primary education to higher education, from literacy levels to technical training, and from quantity to quality of human resource development.

5. Changes in age structures, over a long period of time, will reduce the number of people entering into the labour market and will lead to labour shortages of a substantial nature.

6. The primary sector will shrink and its contribution to gross domestic product (GDP) will be much less as compared with the secondary and tertiary sectors.

7. Given the labour shortages and fast growing service sector, women's participation in the labour force rapidly increase, resulting in more economic independence and freedom than available earlier, which will help to reduce gender-based inequalities.

8. Large-scale population shifts to major urban centres in search of better opportunity will produce mega-cities, straining their infra-structures. Urban housing, transport, pollution and crime rates will become major concerns of planners and developers.

All the above anticipated changes may or may not occur at the same time in a particular society and there is no sequencing implied. They are at best, in a Weberian sense, ideal typical constructs. Some of the above consequences are directly related to the fertility transition and others are indirect consequences because of active inter-play between factors. In any case, such rapidly changing environment calls for major changes in population control programme goals, objectives, systems and structures. The new directions the family planning programmes may take and their integration with other programmes are discussed below to identify the shifts in focus and their influence on monitoring systems.

Ⅲ. New Programme Directions

Traditionally, the family planning programme objectives were specific : they were aimed to reduce birth rates, by achieving higher contraceptive prevalence rates. Reach of services, coverage, method use and motivation of couples to adopt modern contraceptive methods were the focal points. After achieving the objectives, there is an imperative need to change strategies for two reasons : (a) manpower resources available have to be effectively and efficiently used and (b) new issues arising out of the new situation deserve more attention and require concerted effort. The major anticipated shifts in programme areas are : (a) increase in demand for quality services; (b) structural changes in delivery systems;(c) changes in information needs;(d) programme strategy developments; and (e) integration and coordination of activities with other departments. Each of these shifts are elaborated further in the following section.

1. Quality of Services

Quality of family planning services become more important than coverage and reach. Quali-

ty is a nebulous concept and means different things to different people. Quality for some is a feeling that emerges out of practical experience in a particular situation and hence is not measurable. For others, quality is to be judged against certain pre-set standards or criteria and, therefore, measurable[7]. Here it is the second aspect that has been explored. If the standards can be set, the relevant questions are : who should set the standards? On what basis should the standards be set? Do these standards, once set, undergo changes over a period of time for the same programme activities and priorities? How frequently should the standards be changed?

Setting standards is the most difficult task. In societies where the knowledge and demand levels are low, the standards are set by service agencies, often not taking into account the needs and preferences of consumers., This monopolistic situation changes with revolutionary rise in aspirations of people and also due to their outside exposure. Consumer satisfaction under such circumstances becomes important and quality standards should, therefore, reflect the consumer's needs and preferences more than those of organizational convenience. In this regard, the service systems have to make a match between the rising levels of expectations and organizational requirements. Quality standard is a relative term and undergoes changes as the economy grows, as purchasing capacity improves and as technology advances. Constant review of standards is an imperative need.

Quality in the context of family planning has some common programme elements such as the method choice available, time allocated for counselling and follow up, physical facilities that offer privacy and that are clean, and finally the attitudes and orientation of service providers towards clients. The last aspect becomes the most important as societies move from collectivism to individualism. In societies, with collective orientations, the clients have often received solace and comfort from the friends and relatives who have willingly invested considerable time on a reciprocal basis. As the individualism grows, these traditional bonds disappear and service organizations are expected to fulfil this gap. So quality of services in all its dimensions becomes a central issue to the family planning/health programmes.

2. Structural Changes in Delivery Systems

Family planning programmes, to begin with, placed a major emphasis on clinic-based services. When the results were not commensurate with expectations, the extension approaches were introduced and strengthened. Household visits by workers, regular and frequent contacts with couples and education and motivation of couples are core tenets of extension approaches. With more than 70 percent of couples using one or the other type of modern contraceptive, the programme hardly requires an extension approach of great magnitude. The extension approach also loses its importance not only because the couples in the reproductive age groups are knowledgeable and motivated enough to require further inputs from outsiders but also for other reasons. Since the majority of the population lives in urban areas, with increasing female participation in work outside

the household, it is difficult for workers to contact couples[8]. Given this and other cost considerations, the extension approach is neither going to be efficient nor effective. The programmes have to shift to clinic-based services.

This calls for a major shift in the organization structures, functions and skills required at various levels. Already role expansion exercises have been done by some countries by integrating family planning with maternal and child health services. Changing the focus of workers from one set of programme priorities, with which they have been dealing for a long period, to more diverse approaches may not be easy. Many administrative financial and cultural aspects often act as major barriers to such change processes. Reorientation training programmes for personnel at all levels is an essential precondition for structural changes.

3. Changes in Information Needs

With the replacement of extension approaches by clinic-based service delivery systems, the extensive use of mass media to meet the information needs of clients becomes necessary. As an economy grows, the effective reach of audio-visual media will increase tremendously, further facilitating this process. The use of audio-visual media through established television channels, though desirable, is very expensive. Health and family planning programmes have to compete with others for prime-time slots and the costs involved are almost prohibitive. The slots available at other times attract fewer viewers and, therefore, are less effective. So the ministries have to devise ways to reach target groups, either by finding sponsors or by allocating more resources.

The other complementary approach could be to use the print media extensively. Informed articles in widely circulated newspapers and magazines and well-prepared pamphlets and hand-outs to be given to clients at the time of first contact could be other means. This calls for various carefully conducted research studies to find out the knowledge levels of clients in regard to a particular health and family planning issue and the type of information they require and need to be provided.

Dissemination of information is also important from other points of view. Clients, given their exposure to media and their possible access to computerised databases, may be inclined to invest time and resources to gain more knowledge about a particular health or family planning issue. Knowledge and its contextual interpretation once confined to professionals, will be more widespread. This may lead to in-depth probing of a particular issue by clients for which the professionals may or may not have answers, so orientation programmes for professionals become important. Given these issues, more attention needs to be paid to research and planning efforts for the dissemination of information.

4. Programme Strategy Developments

With westernization, urbanization and modernization processes at work, widespread changes are expected to occur in family structure, in traditional customs and practices and in institutional arrangements. But then, social - anth -

ropological literature on the subject has shown that all elements of tradition do not change[9]. For instance, the extended familial relationships may still remain a strong force even after modernisation. Some elements of traditional systems are compatible with modern systems and therefore co-exist after necessary adjustments. For instance, a farmer in India buys a tractor on an auspicious day and worships it before use. An industrialist wears modern dress, eats non-vegetarian food and discusses technology issues during working hours and the same person gets into traditional dress, observes vegetarianism, and spends several hours in meditation. Numerous such examples can be found in all modernising societies.

Parts of tradition also remains because of revivalism. Radical changes in traditions and the harsh realities of modern life re-kindle faith in tradition. For some, this is also a way of maintaining distinctiveness of their societal values. It is, therefore, important to know what elements of tradition get replaced by modernity and what elements remain more or less the same. Future programmes have to look into replacements and adjustments, particularly in terms of social consequences, for strategy development. Emphasis has to be on the maintenance of social equilibrium.

5. Integration and Coordination

Family planning departments, after achieving their objectives, have to be either merged with other departments or their activities, coordinated to achieve a synergistic effect. Aclose look at the type of functions the department is to be entrusted with and the linkages with other departments require discussion. One of the main functions, under changed circumstances, is the counselling of mothers about maternal and child health, particularly in terms of pre-natal, natal and postnatal care. The second main function is to educate adolescents about family planning. This is particulary important in societies where the liberalised social norms lead to high premarital and adolescent pregnancies and delayed marriages. The social costs of such behaviour, in all societies, are high. Preventive measures should include population education for school and college students. The third function that should be given importance is marraige counselling. This not only helps the couples to have happier married life but also, to an extent, prevents increases in the divorce rates. Fourth funciton is the dissemination of information on contraceptive use. Contraceptive technologies undergo changes from time to time. Information on new technology has to be shared with people, particularly on the way contraceptive technologies should be used and on the management of any side-effect. Finally, the problems associated with the expanding elderly population require attention. Besides welfare measures, such as insurance schemes, pension schemes and old age homes, the ways and means should be devised to see that the elderly are cared for in their own families. This could be achieved by strengthening select elements of traditional value systems and by a series of incentives such as tax benefits.

Once these fuctions are identified and priorities fixed, it is necessary to identify the departments currently carrying out these functions

and to find out the functions not performed by anyone. This helps to cover the gaps and to establish linkages between various departments. For instance, population education activities have to be coordinated with those of the education department, and maternal and child health activities, with those of the health department. It is also possible to pool all these functions together and create a new department and/or ministry to suit the new priorities.

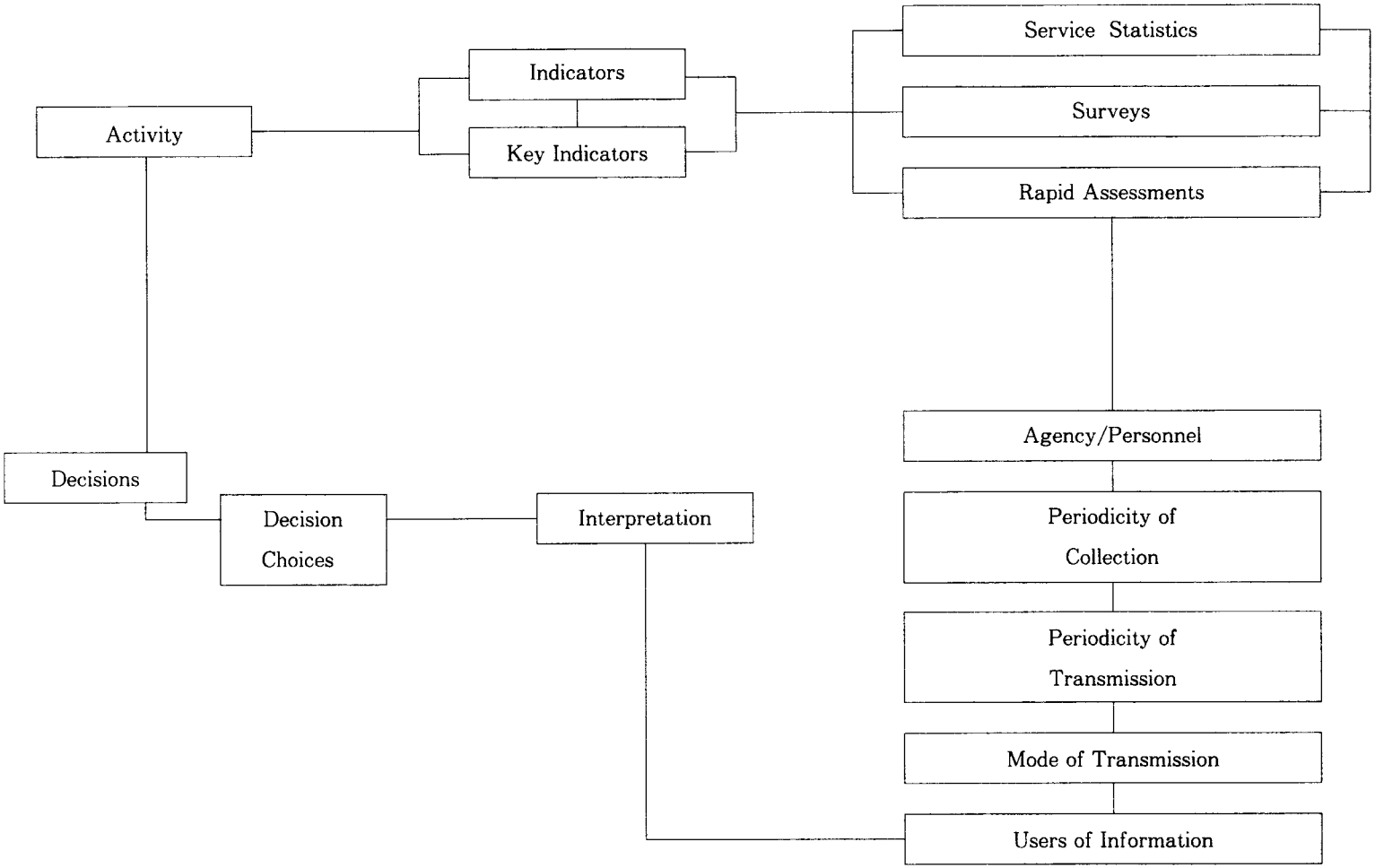
Ⅳ. Monitoring and Evaluation Systems

Monitoring and evaluation systems serve two purposes : (a) they provide information on the effectiveness of programmes so that existing strategies can be reviewed and new strategies formulated;(b) they provide information about the efficiency levels in the organization to chalk out new operational plans or to take decisions on operational aspects of management[10]. While information on strategy development is helpful to policy makers and top management groups, data on operations are useful to middle-and lower-level managers. Since the job responsibilities of various functionaries in any organization are different, a clear delineation of functions and responsibilities is necessary. Information needs are dependent on the actual or delegated decision-making powers of a particular level. The cost of collection, transmission and processing of data are high, though generally hidden. Given these aspects, the design of monitoring and evaluation systems should concentrate on the reduction of costs without sacrificing the essential requirements. The concept of key indicators is important in this context. It is possible to collect data on several indicators or a small number of select indicators for a given activity. Organizations, given the limited skills and resources available to them, are often not in a position to handle large data sets. So to encourage efficient data management and the use of information for decision making, it is important to concentrate on key indicators. The selection of key indicators for each level of organization has to be dine by personnel within the organization and the outside experts can at best play the role of facilitators. Certain types of information require surveys or rapid assessments while other types require routine collection of data by service organizations. Differentiation between these two is necessary to avoid overload of data collection by any particular agency.

Agency or personnel in the organization have to be entrusted with the job of data collection. For most activities, data collection, in terms of service statistics, is done by the service providers. While they record the services on a daily basis, transmission of this information, after processing, may follow different time intervals. For each data set periodicity and mode of transmission have to be decided upon and followed. Based on the information available, the decision makers are expected to interpret the data, generate decision choices and to take informed decisions. These decisions influence the operations at the micro level and strategies at the macro level.

Most monitoring and evaluation systems have emphasized only output indicators. This has led to the relative neglect of information on inputs and processes. While output information high-

Elements of a Monitoring and Evaluation System



lights the problem areas and the possible reasons for them, the decisions to redress the situation should be based on input information. For decision making in organizations, information on output as well input indicators are required.

A list of output indicators on which information is required through service statistics and periodicity of data for each indicator is given in

Table 1 Output Indicators : Service Statistics

Activities	Indicators	Periodicity
A. MCH	1. Pre-natal/Natal/Post-natal	Monthly
	2. Immunization-complete Coverage : Mothers and Children	Quarterly
	3. Pregnancy Risks Identified	Yearly
	4. Pregnancy Risks Referred to	yearly
B. FP	1. Number counselled	Monthly
	2. Number provided services -per mother	Quarterly
	3. Number complaining of side-effects	Monthly
	4. Side Effects : Clients Counselled and Referred to	Quarterly
	5. Nature of Complaints on Side-effects	Half-yearly
C. POPULATION EDUCATION	1. Schools Covered	Monthly
	2. Number Educated	Monthly
	3. Colleges Covered	Monthly
	4. Number Educated	Monthly
D. IEC	1. Films Produced/Exhibited	Half-yearly
	2. Print Material Produced	Half-yearly
	3. Audio-visual Material-Produced /used	Half-yearly
E. OLD AGE	1. Old Age Homes Visited	Monthly
	2. Families Counselled	Monthly
	3. Nature of Problems	Quarterly

Table 2 Input Indicators : Service Statistics

Activities	Indicators	Periodicty
A. PERSONNEL	1. Number in Position	Yearly
	2. Vacant Positions	Yearly
	3. Promotions/Transfers/ Retirement	Yearly
B. FINANCE	1. Budget Allocation	Monthly/ Quarterly
	2. Amount spent	〃
	3. Balance	〃
C. MATERIAL	1. Expendable-Item wise stock position	Monthly
	2. Non-expendable Items	Yearly
D. TRAINING	1. Total Training Programmes -Technical -Non-technical	Quarterly
	2. Number Trained (by level)	Quarterly
E. TRANSPORT	1. Total vehicles	Yearly
	2. Condition of vehicles	Half-Yearly
	3. Number to be condemmed	Yearly
	4. Number to be purchased	Yearly
	5. Maintenance/Fuel cost	Quarterly

table 1. Activities to be covered are divided into five categories, namely MCH, family planning, population education, IEC and old age security. For each of these activities, a list of key indicators has been identified. For instance, maternal and child health activities require information on pre-natal, natal and post-natal counselling, complete immunization coverage of mothers and children, and pregnancy risks identified and referred to hospitals. Family planning activities cover the number of men and women counselled, contraceptives provided, and side-effects management. Similarly, indicators are identified for population education, IEC, and old age issues.

Input information indicators, through service statistics, deal with personnel, materials, finance, training and transport. Some information on input indicators requires one-time collection. For instance, background details of cur-

Table 3 Surveys : Output Measures **Surveus : Input Measures**

Areas	Dimension	Area	Dimension
A. Family Studies	1. Marriages 2. Family structures and Dynamics 3. Inter-generation Issues 4. Security Systems for elderly	A. Personnel	1. Job satisfaction 2. Manpower planning
B. Contraceptive Use	1. Accessibility of services 2. Method choices 3. Use rates 4. Side-effects	B. Training	1. Training systems 2. Training effectiveness
C. Maternal Health Care	1. Accessibility of services 2. Coverage rates 3. Side-effecets	C. Mothers	1. Distribution systems 2. Inventory controls
D. Efficiency of Service Units	1. Utilisation rates 2. Seasonal variations	D. Finance	1. Cost-effectiveness 2. Cost-recovery aspects
E. Quality of Services	1. Time spent on counselling 2. Physical facilities 3. Privacy 4. Orientations of service staff 5. Levels of satisfaction		
F. IEC Strategies	1. Target groups 2. Media reach/effectiveness 3. Message development 4. Information needs		

rent personnel can be collected on a one-time basis and updated whenever there are recruitments, promotions and transfers. This can be done much more easily with computerisation. The only information that is required on a regular basis is about expendable items, such as contraceptives, vaccines and essential medicines, to maintain stock levels;training activities to learn about the total number of trianing programmes conducted and number of people trained;and the maintenance and fuel costs of vehicles. All information needed for management of programmes does not come from the service statistics. Even if there is scope to enlarge the amount of data collected through service statistics, it is not desirable to do it. Family planning personnel exist to provide services, so it is more useful if they perform their primary job responsibilities rather than collect data only. Surveys, therefore, have a major role to play. A list of areas and dimensions to which the surveys can significantly contribute in the analysis of problems associated with both inputs and outputs is given in table 3. The list provided is only suggestive and the number of surveys that can be carried out depends on resources, both financial and professional, and also on priorities.

Monitoring and evaluation systems have to be designed in close collaboration with the departments concerned. Users of the system should play a very active role in evolving new system. It is also necessary to link the systems to organization structures and decision-making processes. More often than not, a large amount data are collected without sufficient thought to the efficient use of information. To avoid this, all personnel in the system should be trained not only in the maintenance of systems but in the interpretation of information available from different sources. Informed decisions make the organizations more efficient and effective.

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