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Major Obstacles to Achieving Satisfactory
Registration of Vital Events and the
Compilation of Reliable Vital Statistics

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FOREWORD

This Technical Paper is a condensed version of the Conference Room document prepared by Nora P. Powell, IIVRS Consultant, 21st Session of the United Nations Statistical Commission held 12-21 January 1981 in New York, N.Y. It is based on the problems perceived and reported in response to a survey conducted by the IIVRS. The participation of a number of Members of the IIVRS in this survey is gratefully acknowledged.

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Major Obstacles to Achieving Satisfactory Registration of Vital Events and the Compilation of Reliable Vital Statistics

INTRODUCTION

The compilation of vital statistics from civil registration records of births and deaths is the second oldest demographic statistics system in existence. Only the population census predates it. It is also, at least in less developed countries, one of the least advanced. Civil registration itself is among the oldest institutions in the world, yet it too is currently one of the least advanced in less developed countries.

The reasons for this situation have been explored at length in many international and regional seminars and conferences. A substantial body of literature details the theoretical and practical obstacles to achieving complete registration of vital events and of using the legal records as the source of reliable vital statistics. Do these obstacles really exist? If so, can they be removed? Has any progress been made in overcoming them? What would be required to bring about improvement?

To find answers to these questions from those persons most likely to know, the International Institute for Vital Registration and Statistics (IIVRS), in October 1979, sought the opinion of its 127 National *ex officio* Members who were responsible at that time for civil registration and/or vital statistics in the 80 less developed countries that were represented in the Institute. Thirty-two members from 32 countries responded.

These 32 respondents were officials in countries representing almost every continent of the world. Eight worked in Africa; 11 in Latin America; 9 in Asia; and 4 in Oceania. Responses ranged from "no problems exist" to detailed statements on the obstacles that were being encountered in trying to develop reliable civil registration and vital statistics systems. However, these perceptions may not necessarily represent the full complement of obstacles that might have been reported had the respondents been more representative of the developing countries as a whole. This limitation should be borne in mind in interpreting the responses set forth below.

This report on the findings of the survey is divided into three major sections. The first section discusses, under seven type-categories, numerous obstacles, perceived or experienced, in achieving

complete registration of vital events and in compiling reliable vital statistics from these records. The second section discusses levels of success achieved in overcoming some of these obstacles. The third section presents the conclusions of the survey.

OBSTACLES REPORTED

The obstacles reported fall roughly into seven categories; these are, (1) funding; (2) legal basis for the system; (3) organization of the system; (4) registration functions; (5) statistical functions; (6) staff (including training); and (7) the public. As would be expected, some obstacles or problems could be considered under more than one rubric. Hence, in the analysis that follows, reference has been under all relevant categories.

Funding

One obvious type of obstacle was reported as being common to all but one country in the IIVRS survey and that is "funding." Only one respondent contended that lack of funds was not an obstacle, despite the fact that it is almost universal, being found in more developed as well as less developed countries. It is obviously the underlying cause of many of the immediate problems facing developing countries, such as lack of adequately trained staff as well as many of those other problems concerned with the registration and statistical functions singled out below. Because of its universality and applicability to many problems, the lack of adequate funding must be considered in connection with all the obstacles mentioned below.

Legal basis of the vital statistics system

Seven obstacles that are legal in nature were reported. These ranged from complete absence of a registration law and hence the authority to develop a conventional vital statistics system, to the need for a new or amended law.

Need for legal provision - a registration law. Very few countries have failed to enact basic legislation requiring compulsory nationwide registration of at least births and deaths. Among the 32 respondents in the IIVRS survey, only two cited the fact that legal provisions for a vital statistics system were lacking, and both observed that the government was aware of

the need and that a draft law was already under consideration. Compilation of vital statistics, on the other hand, is governed in most cases by the law authorizing collection of statistics in general. No problem in this area was cited by respondents.

Deficiencies of current registration laws. Recognition of the inadequacy of civil registration laws currently in effect were widespread among respondents. One such inadequacy cited was the impractical time periods provided for the public to comply with the law. It was noted that where the public needed to travel long distances, often through areas rendered unapproachable in certain seasons, the difficulties to be encountered in reaching the registrar should be recognized and the statutory time periods for legal registration extended accordingly.

Failure to make registration of vital events compulsory was the most mentioned legal deficiency, while failure to impose obligatory penalties for noncompliance was also deplored. It was noted that when such penalties were imposed, the fact that they were mild made them virtually ineffectual. Penalties for noncompliance are difficult to enforce because such enforcement must prove deliberate or willful failure to register. For these reasons, participants in the 1968 United Nations Seminar on Civil Registration and Vital Statistics in Asia and the Far East agreed that the law should include imposition of a penalty but that it need not necessarily be imposed by a court of law.

Perhaps the most important legal deficiency cited was the failure to provide for a central registration authority that could direct the registration function throughout the entire country and monitor and supervise its performance. Although this deficiency is especially important for countries that are large in terms of either geographic or population size, its effect can be detected also in smaller countries. Conflicting interpretation of the law was cited as one obstacle that could be removed by strong central direction with its ability to promote uniformity and comparability among the component parts of the system.

According to a study completed in IIVRS in 1977 (Reference 1) there were at least 50 countries that did not have a central or national office in charge of implementing the registration law. Sixteen of these were African countries where registration was decentralized to communes or other population centres, following the European pattern. Seven countries of North America and four of South America also lacked a central registration authority. (Five of these eleven are federated countries, where responsibility for

registration rests in the states or provinces.) Asia was represented by seven countries in which registration was decentralized, without a central registration office, while 15 such countries existed in Europe. Oceania had only one country where, in fact, registration is decentralized to the federated States.

The lack of a central authority does not appear to hamper the achievement of complete registration in Europe because of the physical size of the countries, the density of population, their relative urbanization, and, of course, their long history of registration. But where distances are great, population predominantly rural and widely dispersed, and civil registration a relatively new experience, the lack of central direction, supervision and coordination inhibits registration coverage and quality, and hence impedes the development of reliable vital statistics.

The advantages of having national control of registration was strongly emphasized in the United Nations *Principles and Recommendations for a Vital Statistics System* (Reference 2). Moreover, among the respondents to the IIVRS survey, such a central registration office was considered by many to be essential to success in developing a registration system and reliable vital statistics.

In addition to recognizing that underregistration of vital events was the prime and overriding example of failure to comply with the law, several respondents singled out as a problem the obtaining of burial permits without prior registration of death. Legal burial requirements in most countries include production of proof that the death was registered prior to interment. Failure to enforce the law in this regard occurs largely in rural areas, but is known to be widespread. The result is underregistration of death and, equally important, loss of possible medical data that would have been included in the medical certification of cause.

Conflicting interpretations of the law was cited as one reason why data needed for statistical purposes were sometimes not collected at the time of registration. The clear definition of the duties of the local registrar is a serious problem that will be mentioned also under "registration functions" below.

Organization of the vital statistics system

Once adequate legal provisions have been made for civil registration of vital events and compilation of vital statistics, implementation of the laws is required. Several general obstacles were recognized by respondents as impeding development of complete registers and reliable statistics. These are set forth below.

Lack of appreciation among high-level governmental officials. The lack of appreciation of governmental officials at high levels of the need for complete and accurate vital statistics, and their failure to make a commitment to this end, was cited as an important obstacle to successful implementation of the law. Indeed, the lack of awareness of the utility of vital records and statistics for the implementation of public health and other social and economic programmes was said to present a problem in organizing an efficient system in countries in Latin America, Asia and Oceania. A similar lack of appreciation was said to exist among the public and the local registrars.

Several respondents complained that priority at the national level was given to surveys and sample registration systems and that, as a result, support for the conventional vital statistics system was not strong enough. They urged that the development of the system be looked upon as a long-range programme that might require short-term alternatives such as registration on a sample basis to serve as a means of experimenting with procedures and educating the public as well as, perhaps, a source of current data, but the development of a nationwide conventional system should always be the ultimate goal.

Lack of coordination. Failure to coordinate the separate elements responsible for the conventional vital statistics system was the concern of a number of respondents in Latin America and Africa. One suggestion for remedying this deficiency was the establishment of an advisory board. According to a respondent from a country where such a board had proven very useful, "it would consist of representatives from all public sectors concerned with civil registration and the exploitation of vital statistics as well as representatives of the various ethnic, religious, social or cultural groups." Examples of such institutional coordination mechanisms were cited by several other respondents. Also mentioned were specific instances where coordination was lacking, including that between medical officers and civil registration officials, and between statistical officers and local registrars.

Deficiencies in the organization of civil registration. Most comments on organization problems dealt with the civil registration functions and how they were organized. Some 13 separate obstacles were identified in this area by 7 respondents, among whom all regions were represented.

The lack of an autonomous central registration office, responsible for the intermediate and peripheral

(local) registration units, was cited as one of the greatest handicaps to organization of civil registration in Africa and Latin America. It was pointed out that when local registration was dependent on separate municipalities or larger civil divisions, rather than on a national registration authority, the registration function did not receive the support and prestige it deserved and, as a consequence, the public did not appreciate the need to register. It was also noted that lack of monolithic machinery for registration in a large country had resulted in personnel problems because registration officials were drawn from other staff on a part-time basis with serious results. Related to this point was an observation that the registrar-general type of organization did not fully meet the deficiency because the registrar-general's department may also be responsible for registering deeds, companies, trademarks, patents, and the like and, hence, could not give to civil registration of vital events the attention it required.

The lack of local registration services in remote rural areas was mentioned as a barrier to completeness of registration in Africa, Asia and Latin America. The wide and uneven distribution of population in rural areas resulted in the public who lived in villages being remote from such registration offices as did exist, a fact that tended to increase noncompliance. Very closely related was the need for intermediate-level services between the national and local areas. This deficiency was emphasized not only in countries where a central authority did not exist, but also in very large countries where local office tended to be numerous and in need of control. Closely related to the whole question of organization was the constraint experienced in some countries by the lack of a suitable framework for use in organizing a vital statistics system, in particular, the lack of a current census of population.

The lack of a notifier system by which the local registrars become aware of vital events through other persons involved with births and deaths, such as midwives, medical officers, nurses, graveyard attendants, school teachers, policemen, religious officials and so forth, was also cited as an obstacle to success. It was observed that events that occurred in institutions were usually registered, but those that required the cooperation of the individual legally responsible registrant tended to go unregistered.

Difficulties encountered in the organization for compiling vital statistics. According to an IIVRS study completed in 1977 (Reference 3), vital statistics were compiled by the central statistical office in 125 out of a total of 154 countries for which information

was available, by the public health service in 17, and by a central registration service in 12. This evidence of an almost universal organizational pattern for compilation of vital statistics, coupled with the fact that virtually no obstacles were reported by respondents on the question of statistical organization, indicates that the difficulties encountered have their origin in the statistical functions themselves.

For example, several observations were made regarding the difficulties the central statistical office encountered in compiling statistics from records collected by another administration. It was also pointed out by two respondents that the lack of authority to instruct and correct registrars in their functions as they relate to the statistical use of the records was an obstacle to obtaining good data. The lack of statistical control over the registration function was also blamed for failure to produce timely vital statistics because of the delays in reporting from the field and the inability of the statistical authorities to compel timely compliance. The difficulty or even inability to establish coordination between the central statistical office and the peripheral registration units (communes, municipalities, etc.), especially in a decentralized system, was also mentioned.

Registration functions

The registration function is defined by the United Nations as the "continuous, permanent, compulsory recording of the occurrence and characteristics of vital events..." The elements of this definition, especially the "continuous" and "compulsory" aspects, give rise to many problems. These attracted the most responses in the IIVRS survey. Respondents from 20 of the 32 countries represented in the survey cited some 24 problems that, in their opinion, constituted obstacles to achieving complete and current registration and reliable vital statistics. The obstacles mentioned by the most respondents were (1) wide dispersal of population in rural areas and their remoteness from centers where registration could take place; (2) lack of transport and means of communication to deal with the situation mentioned in (1); (3) illiteracy of the population; and (4) delayed or late registration. These types of obstacles appear to have relevance to many countries being reported by respondents from Africa, Asia and even Oceania.

Wide dispersal and remoteness of rural population. The geographical remoteness of population from centers where registration could be made was the concern of respondents in all parts of the world because of its acknowledged effect on completeness of registration. The requirement that

registration be effected at a center remote from the local units (villages) where people live was deplored as an organizational barrier. The uneven distribution of population living in villages was also noted.

Lack of sufficient transport. It was pointed out that it was difficult, if not impossible, to initiate and maintain contact with remote segments of population principally because adequate transport for the field staff was not available. For example, in one case it was reported that a single Land Rover was provided for field communication among an estimated population of 14 million in an area of some 225,000 square miles.

Illiteracy of the population. The illiteracy of the population was cited as an obstacle to registration in African and Asian countries. The difficulties of reaching the population either through local registration services or by mobile units was compounded when the population was unable to profit from printed instructions and propaganda.

Delayed or late registration. The delayed registration of births and deaths, mentioned by respondents from Africa, Latin America, Asia and Oceania, may be due to ignorance of the public concerning their obligations under the law or to failure or inability to comply with the law within the statutory time periods allowed. Late registration of birth was more common than that of death because of the need for a birth certificate to enable children to enter school, or for parents to obtain certain benefits in some countries. But late registration of birth also required great care on the part of registration officials in order to establish the correctness of the information on identity, birthplace, date of birth and so forth. The staff time required for this investigation delayed the current registration operations. This, in turn, delayed statistical processing. Delayed registration could also render inaccurate the statistics of birth in cases where tabulations were made according to date of registration rather than date of occurrence.

Other obstacles reported. In addition to the four predominant obstacles encountered in the registration function, others dealing with specific procedures of registration that are more amenable to correction were reported as follows: (1) use of blank registration forms rather than printed ones, resulting in lack of uniformity of data inscribed and loss of information; (2) name changes after registration; (3) lack of space for files; (4) lack of registration materials; (5) lack of modern storage methods, such as microfilm, (6) lack of a central registration file; (7) lack of medical certification of death, especially in rural areas; (8) lack of inspection and supervisory

systems to control registration at the local level; (9) certificates of birth and death deficient in particulars needed to satisfy statistical needs; (10) falsification of information; (11) lack of comparative studies of registration procedures in areas considered "good" and "bad"; (12) lack of funds at local levels; (13) insufficient time for registering.

Statistical functions

Statistical functions, as opposed to registration functions, are concerned with collection, compilation, evaluation, tabulation and publication of vital statistics. These functions elicited 16 obstacles reported by 28 respondents in 13 countries of Africa, Asia, Latin America and Oceania. The two obstacles reported most widely were (1) delay in dispatch and receipt of statistical reports on vital events for processing, and (2) lack of adequate data-processing facilities.

Delay in dispatch and receipt of statistical reports. These delays referred to two different types. The most important and common was the transfer of individual statistical reports of vital events from the subnational registration unit to the level, usually national, where statistical processing took place. A related delay was that experienced in connection with publication at the national level when some type of aggregation or processing was performed at the subnational (perhaps provincial) level. The varying lengths of time required for this pretabulation could not help but delay publication of national data, since the latter was completely dependent on having returns from all subnational divisions. It also acted as a constraint on the diversity of the national data since they could be no more detailed than the aggregations submitted from subnational levels.

Delay in dispatch of material to the national level was reported from all parts of the world. It was blamed for lack of timeliness in national vital statistics. It was also blamed for lack of accuracy in the data, due to the fact that verification of information as much as six months or more after registration took place was, for all practical purposes, impossible. Some idea can be had of the timeliness of data at the national level from a study completed in 1975 (Reference 4). It showed that the latest birth statistics in the 1971 *Demographic Yearbook* of the United Nations were for the years 1970 or 1971 in only 110 countries out of a total of 149 that produced nationwide registration statistics.

Several respondents noted that the delay in receipt of reports on vital events for statistical processing could be eliminated if the central statistical service had some control over the registration func-

tion. Such control would also allow verification of the original data and facilitate supervision and examination of sources. It may be significant that, in an attempt to achieve this coordination, some eleven countries had, by 1977, merged the registration function and the vital statistical function under the central statistical office. In these cases, the director of the central statistical office is also the registrar-general.

Lack of adequate data processing facilities. Lack of adequate processing facilities was cited as a widespread obstacle by respondents from African, Asian and Latin American countries. Concern was expressed over the use of antiquated equipment for punching and tabulating, lack of funds for computer services, and lack of adequate printing and storage facilities. Since some of these obstacles could be overcome by additional funding and trained staff, it was recognized as one of the problems potentially soluble with outside assistance.

Date-of-registration tabulations. It should be noted that many countries tabulate vital statistics by date of registration rather than by date of occurrence of the event, thus including events that occurred years ago and omitting current events that have so far failed to get registered. Unless registration is "complete," i.e., at least 90 percent of events that occurred are registered on time, statistics based on date of registration are of less value for demographic analysis, since they may refer in part to the experience of years long past. Similarly, inability of the statistical service to fill gaps in information or to verify the accuracy of reported information on events that occurred months or years previously, reduces the quality of the data.

Staff and training

The lack of adequate staff both for registration and statistical processing has been cited in connection with "Organization of the vital statistics system" and the "Registration functions." This obstacle and a number of others made up a total of 12 reported by 13 respondents who, as in other instances, represented all parts of the world. Overwhelming interest centered on "lack of qualified staff" which was singled out by respondents in eight countries.

Lack of qualified staff. "Qualified" in this context means full-time trained personnel. The unsuitability of village mayors to serve as registrars was noted as well as the fact that rural registrars in general tended to be of low educational attainment. The necessity of using staff on loan from other governmental departments resulted in frequent transfers which, in turn, resulted in lack of continuity

and also required maintenance of continuous training programmes. Part-time employees, delegated from other offices, were even more unsatisfactory, since they remained responsible for their normal duties and hence had little interest in added functions. Lack of adequate remuneration, especially of local registrars, was cited as an ever present obstacle.

Lack of sufficient staff. In addition to the lack of quality in the staff, it was also noted that there was often insufficient staff to meet the needs of receiving, verifying, coding and tabulating in the central statistical service. Similarly, lack of sufficient staff to cover the registration functions among widely dispersed populations was reported by many respondents.

Lack of training. The lack of qualified and sufficient staff, outlined above, could be overcome at least in part by establishing training programmes. The lack of training facilities and programmes was cited by 9 respondents, one of whom indicated that the problem was common to all African countries. It was also noted that such training programmes as did exist were in need of expansion, both of scope and content. For example, registrars needed to be trained in the statistical uses of registration records and such training, especially for rural registrars, was said to be provided infrequently, if at all. In general, there was a lack of appreciation of the need for such training, both among the authorities in charge and the staff involved. In this connection, it was reiterated that politically appointed registrars required continuous, rather than *ad hoc*, training programmes because of the rapid turnover experienced.

The public

"The public," as a category of obstacles that impede achievement of complete registration and reliable vital statistics, was perhaps the most important of all, since it was considered fundamental to the problem. The cooperation of the public in making known the occurrence of a vital event is the keystone to success of the system. The legal basis of the system, the infrastructure of organization, its functions, its staff and their training, are ultimately dependent for success on the active cooperation of the population. The public may, therefore, be said to hold the key for improving the system. Several related aspects of the problem are discussed below.

Ignorance of the public regarding statutory requirements. Several respondents noted that the public, especially in rural areas, tended to be ignorant of the statutory requirements for registration, and of their duties and obligations in this regard. This was

considered an especially important obstacle because most of the births and deaths in rural areas occur at home where the responsible persons are those that live in the household in which the event occurs. The ignorance of the public in these matters could be due to a number of causes. In many areas, the populations living outside the mainstream of society might be functionally illiterate and therefore immune to their obligations. Failure of the authorities to inform the public of their responsibilities and entitlements might also be a factor.

Resistance of the public to registration. Several respondents cited specific cases in which the resistance of the public to registering vital events was known to exist. One of these was resistance to register illegitimate births. The resistance to having illegitimacy recorded on an official record of birth is known to exist in most countries, developed as well as developing, and it is an understandable reason for underregistration. In an effort to remedy this situation, some countries have removed all reference to legitimacy from the legal record. Unfortunately, this course often eliminated also the possibility of deriving illegitimacy statistics; an important analytical variable in fertility analysis is thereby lost.

Resistance to marriage registration among ethnic and religious groups is not so well known or widespread and, according to those respondents who reported it, there appeared to be no knowledge as to why this attitude persisted or how to change it.

Lack of motivation to register. Very understandable was another attitude that impeded registration and that was the resistance of the public to register when no obvious personal benefit was conferred thereby. Several respondents in Africa and elsewhere noted that when no need was felt for having an official record of the event, there was no incentive to comply with the obligation to register, even when this obligation was perceived. This seemed to be the principal reason for underregistration in most developing countries.

The legal record has value for proving identity, age, citizenship, filiation, marital status and so forth, but this value is important primarily in the settled, largely urban populations, since nomadic and tribal populations may have no immediate need for such proof. To bring these groups into the mainstream would be contingent on major social changes. Several respondents mentioned that the current interest in setting up population (civil status) identity registers had, in fact, a deleterious effect on the establishment of civil registers of births, deaths and marriages in developing countries. This was so

because the identity card issued in such systems served as the legal proof of identity, age, citizenship and marital status, replacing the birth and marriage records. The fact that information on such identity cards tended to be based on often inaccurate and out-of-date information did not deter their use for these purposes.

Failure of authorities to promote registration.

The lack of publicity and promotional campaigns, including audio-visual training activities on the importance of registration, has left the public ignorant of the legal, administrative and statistical importance of registration. The majority of the population does not have the statistical consciousness required to recognize the need for vital statistics in development planning. Without effective educational efforts by the authorities, the public will not be in a position to cooperate in the system.

STAGES OF SUCCESS IN OVERCOMING OBSTACLES

Information on success achieved in overcoming obstacles is not easily obtained. Change is slow in coming, due in part to the complexity of the system but also to its low priority in terms of governmental support and commitment. A system that involves both legal and statistical elements and whose consumers include not only the public but numerous governmental agencies, concerned with health, welfare and other social and economic programmes, is difficult to manage, let alone improve. Despite these disclaimers, some indications of success can be seen in indices of completeness of registration reported and also in the replies received from the 32 respondents to the IIVRS survey.

Completeness of registration of births and deaths. An analysis of the completeness with which vital events are registered can be based on the percentages of births and deaths that get registered currently. Such information may be fragmentary as well as subject to deficiencies in method of derivation, but the United Nations *Demographic Yearbook* contains by far the most comprehensive and reliable information on the subject.

Quality codes for vital statistics based on completeness indices, were introduced in the 1951 *Demographic Yearbook* of the United Nations. They were evaluations provided by Governments in response to a question on the annual *Yearbook* questionnaire. On the basis of the replies and a search of relevant official publications, it was possible to classify national vital statistics into three broad categories: (1) those stated to represent virtually

complete (at least 90 percent) coverage of events that occurred each year were coded "C"; (2) those stated to represent incomplete (less than 90 percent) coverage, or to be subject to considerable irregularity, were coded "U"; and (3) those for which no information was available were shown with three dots (...) as "unknown." Over the years, these codes have been refined and revised as new information became available from analyses of the results of population censuses and demographic sample surveys as well as dual record checks, but the codes continue to represent the quality as perceived by the countries concerned.

From the 1975, the 1969, and the 1959 *Demographic Yearbooks* in which natality statistics were the featured subject, completeness codes for births in the less developed countries were assembled for the latest available year in the natality trend tables showing data for the 1970s, the 1960s and the 1950s. Ninety-one of the less developed countries showed either "complete" registration or "incomplete;" for the rest of the countries (71), the quality was reported as "unknown."

Quality of birth statistics. Among the 91 countries with indices of completeness, 49 were said to have had 90 percent or better completeness during the 1970s, while slightly fewer (42) showed the "incomplete" code. The 49 countries with complete registration were distributed by continent as follows; Africa, 8; Latin America, 28; Asia, 7; and Oceania, 6. These data show that the quality of birth statistics remains less than satisfactory, especially in Africa, Asia and Oceania.

In addition to the 42 countries with incomplete registration, as defined above, there were a group of 71 in which quality was unknown. These countries fall into two groups. One group of 17 countries is known to have produced nationwide birth statistics for some year or years in the past but nothing in the 1970s; the remaining 54 countries show no evidence of having produced nationwide birth statistics from civil registers at any time. In fact, such birth statistics as have been published in the *Demographic Yearbook* for these countries were limited in coverage to the capital city, to a group of cities, to a registration area, to nonindigenous populations or to other fragmentary data.

Thirty-four of the 54 countries not able to produce nationwide birth statistics were in Africa; 16 in Asia; 2 in Latin America; and 2 in Oceania. Essentially, these can be considered as countries without an effective civil registration system. One cannot say that a system does not exist because in most if not all

of them, legislation has been enacted to enable a vital statistics system to be established. But, to date, such systems as do exist function only in selected areas, ethnic groups, cities and so forth, rather than nationwide. This means that 59 percent of the countries in Africa are not able to produce nationwide vital statistics. It is significant that many of these have embarked on pilot projects, funded by the United Nations Fund for Population Activities, to expand the system to cover the entire country. Thirty-eight percent of the countries in Asia are similarly handicapped. Two countries in Oceania suffer from this deficiency, producing vital statistics only for nonindigenous population. Latin America suffers least, with only 1 percent of the countries so handicapped. The reason for this imbalance is explained, however, when it is realized that 62 percent of the countries in Latin America report complete registration of births. This relatively high standing may be due to the fact that the Caribbean Region consists primarily of a large number of small island States, previously dependencies of the United Kingdom, in which registration has existed and been complete for a number of years. It is interesting to note that five of the eight countries in Africa that report complete registration are also small island States, namely Mauritius, Reunion, Seychelles, Sao Tome and Principe, and Cape Verde Islands. In Asia, the island States of Hong Kong, Singapore and Sri Lanka are among the 7 reporting complete registration of births, and in Oceania, the six countries reporting complete registration are Norfolk Island, Guam, Nauru, American Samoa, Cook Islands and Fiji.

Changes in quality over time. As noted above, there are some 49 less developed countries that report current registration of births as at least 90 percent complete. Among these, 37 report that they have enjoyed this status at least as far back as the 1950s. The remaining 12 countries, however, report that complete registration was achieved only in the 1960s or early 1970s. The countries known to have achieved complete registration of births during the last 20 years are the following: Algeria, Egypt, Seychelles and Tunisia in Africa; Costa Rica, Puerto Rico and Uruguay in Latin America; Jordan and Sri Lanka in Asia; and Fiji in Oceania.

SUMMARY AND CONCLUSIONS

As an essential component of a nation's demographic system, the civil registration process and the derived vital statistics have, for many decades, received international attention. Many international and regional conferences were convened to

study the problems, resulting in numerous resolutions and recommendations. Although the dual purposes of civil registration in providing documentation for establishing the juridical status of an individual and for providing the source for vital statistics are well recognized, the systems in many countries are far from efficient.

In response to a survey conducted by IIVRS, over 100 separate obstacles were reported by the 32 *ex officio* National Members in less developed countries. The countries represented were distributed around the globe as follows: Africa, 8; Latin America, 11; Asia, 9; and Oceania, 4.

The more than 100 barriers to achievement of complete registration of births and deaths and reliable vital statistics were concerned with seven well defined elements of the civil registration and vital statistics systems, namely (1) funding; (2) legal basis; (3) organization; (4) registration functions; (5) statistical functions; (6) staff; and (7) the public.

Analysis of the obstacles revealed that, in addition to the lack of funds which appears to be an almost universal problem, 7 others were considered by the respondents to be of outstanding importance. These were (1) failure to provide by law for an autonomous, central registration authority; (2) failure to make registration compulsory; (3) lack of appreciation among high-level governmental officials of the need for vital records and vital statistics; (4) lack of registration services in remote areas of the country; (5) delayed (late) registration; (6) lack of qualified staff; and (7) lack of motivation among the public to register. Of these, the lack of an autonomous central registration authority, the lack of appreciation among officials of the need for vital records and statistics, and failure to motivate the public to register have the greatest impact in developing countries.

Success in overcoming obstacles as measured by the number of countries that have achieved registration completeness for births of at least 90 percent revealed that only 49 out of a total of 162 less developed countries have attained this desired status; 113 have not. Forty-two of the latter publish vital statistics that are said to be less than 90 percent complete and, hence, of limited use for analytical purposes. To these must be added 17, for whom the quality of published data is said to be "unknown," and 54 others that have not produced nationwide vital statistics for any year. This means that among the less developed countries, 113 or 70 percent have no national vital statistics at all, or, at best, unreliable data.

Despite these discouraging facts, it must not

be overlooked that some measure of success has been achieved by the 49 who have at least 90 percent complete data. Unfortunately, the majority of these (28) are small island states that by virtue of their characteristics were able to achieve completeness many years ago; they are not representative of the group. However, for 12 of the 49 "complete" countries, change from "incomplete" came in the 1950s, 1960s, and early 1970s.

The lack of appreciation among high-level governmental officials of the essential importance of vital records and statistics has been mentioned as one of the most important obstacles as seen by national officials in charge of civil registration and vital statistics in the countries responding to the survey. The various obstacles of problems may be considered in three broad categories. In the first group are problems which are relatively intractable. They cannot be solved within the registration system itself. These obstacles relate to difficult geographic terrain, transportation, uneven distribution of the population, literacy, and deeply embedded cultural, social and economic patterns not conducive to an efficient registration process.

The second group of problems are soluble but require funds to procure adequate staff, training, essential forms and supplies, office space, record storage facilities, document reproduction and data processing equipment, printing, etc. There is nothing difficult about these problems except the need for adequate funding.

The third group of problems can be solved within the national domain and with relatively minor

financial requirements, and include adequate legislation, reorganization of the registration system, and coordination between the different elements of the system. In this set of problems, there may be conflicting legal and competing jurisdictional interests, but the problems are basically soluble.

There is no easy solution to any of these sets of problems, but the experience of some countries in each part of the world shows that adequate results can be obtained, at least in some aspects, if civil registration and vital statistics functions are given appropriate priority in governmental programs.

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