In the North, Middle, and South Americas, excessive and avoidable child death and disability continue to occur. Lack of knowledge about how to plan and execute programs for the health care of children and how to train personnel to function within such programs stands in the way of effective action. Throughout the hemisphere, there are requirements for simple survey and research methods to define health problems and suggest solutions to them within the context of their cultural and social milieu; there are pressures for more health resources and better utilization of those which exist; there are opportunities for training programs to prepare professional personnel and community aides to staff the health services; and there are needs for methods of evaluation which will feed back information needed to perfect the entire operation.

Reduction of high infant mortality is an important goal toward which all national programs in the Americas should be directed. It is the goal most relevant to the needs of both developing countries and the poverty pockets of the United States. Pediatrics and pediatricians have a special and unique contribution to make toward the achievement of this goal.

The present statement proposes the selection or establishment throughout the Americas of several community health centers to serve as resources for training and for developing and testing programs oriented toward the goal of reducing infant mortality. These centers would be related through a system of intercommunication, including the exchange of personnel.

The developing countries of Latin America, faced with enormous health problems and limited health resources, have been forced to use efficient and ingenious ways of marshalling and distributing their scarce resources. The goals to which they have addressed themselves are improved child nutrition,* promotion of family planning,* and reduction of high infant mortality rates.

Latin American pediatric departments are in the forefront of these movements, and in some areas they have successfully integrated service in community health centers into their undergraduate and residency training programs. Although such service and teaching programs are often imperfect because health manpower shortages and scarce resources interfere with goal attainment, these experiences of Latin America have much to teach the United States as a nation and its pediatricians as educators and practitioners.

In the United States during the 5-year period 1961 through 1965, nearly a third of the "excess"† infant deaths occurred in just 42 of its 3,133 counties; most of the 42 counties represented large urban population concentrations. Slum areas within these 42 urban counties frequently exhibit infant mortality rates two to three times as high of those of more privileged areas of the same city and as high as those of some Latin American cities (Table 1). Infant mortality rates of comparable magnitude are also encountered in rural poverty pockets of the United States. Especially high rates occur in urban and rural areas with large Negro populations.

Within the last few years, a number of

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* Committee statement on these matters, stressing the importance of community health centers, has been published.† † "Excess infant mortality" is the difference between the number of infant deaths in an area and the number which would have occurred at an infant mortality rate which 10% of the United States counties with the lowest rates had already achieved or bettered.
University teaching centers in the United States have assumed some measure of direct responsibility for the comprehensive health care of children in small segments of urban poverty areas under service programs financed by various Federal agencies. Unfortunately, these programs have, in general, merely assembled a staff of specialists to serve as a composite family doctor and provided care in the more or less traditional pattern of medical center clinics. Research and training potentials have remained undeveloped. The need for operational research and improved methods of training and using personnel is highlighted by the failure of most of these programs to reach more than a small fraction of their target populations. This failure is due in part to manpower shortages brought about by the insistence that all health services be delivered by professional persons, in part to the operational requirements of duplicate systems of care, and in part to an absence of specific goal-oriented objectives in the new programs.

The traditional methods of providing health care in the United States rely increasingly heavily on the medical manpower of other nations. In 1967–1968, there were 1,265 graduates of foreign medical schools who filled 9% of the pediatric internships, 39% of the pediatric residencies, and 49% of other pediatric postgraduate training positions in the United States. Foreign medical graduates comprise, then, a substantial portion of the manpower now confronted by the health needs of children in slum areas in the United States. In general, however, neither they nor graduates of medical schools in the United States obtain adequate experience or training in the kinds of pediatric services relevant to the health needs of poverty-stricken communities anywhere in the world.

The illnesses and nutritional deficiencies which result in excessively high mortality among infants and young children in New York, Chicago, Los Angeles, or rural Kentucky are similar to those of Caracas, Sao Paulo, Santiago, or rural Colombia. They are intimately related to high birth rates and to overwhelming social, economic, and cultural inequities and inadequacies. Long-range plans to curb overpopulation and to attack these inequities are essential, but avoidable death in infancy or childhood cannot be tolerated at any time. The objectives of the proposed network of health centers are to perfect methods which identify, reduce, and ultimately help prevent the avoidable illnesses and nutritional deficiencies which lead to death. Such methods include family planning.

Despite their relationships to adverse socioeconomic and cultural forces, the biomedical components of this excess disease and deaths can be neutralized or deflected by translating existing scientific knowledge into effective prophylactic and therapeutic action. Isolated examples of action of this sort include the application of rehydration techniques, screening for and treatment of anemia, nutritional rehabilitation, and widespread application of family planning measures. However, such endeavors have been insular and unintegrated. They should be superseded by comprehensive, community-based health care programs whose operational emphases are adjusted to the problems and character of each community on a priority-ordered, goal-oriented basis. These broad programs would select and combine several effective actions into a single operation using new approaches and thus providing experience which is not presently available.

In order to delineate the most effective elements of community-oriented comprehensive child care and promote their widespread application, the American Academy of Pediatrics recommends that the United States government in conjunction with the Pan American Health Organization support the study of techniques and methods of research, training, and evaluation in a few selected community-based health centers strategically located throughout the Western hemisphere. The Academy believes that the experience derived from the proposed study would strengthen the ability of the United
### TABLE I

**INFANT MORTALITY IN SELECTED CITIES OF LATIN AMERICA, AREAS OF SELECTED U. S. CITIES, AND U. S. NON-WHITE POPULATION**

<table>
<thead>
<tr>
<th>City and Area</th>
<th>Year</th>
<th>Infant Mortality Rate*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caracas, Venezuela†</td>
<td>1966</td>
<td>42.5</td>
</tr>
<tr>
<td>Panama City, Panama†</td>
<td>1966</td>
<td>45.6</td>
</tr>
<tr>
<td>Sao Paulo, Brazil†</td>
<td>1963</td>
<td>69.9</td>
</tr>
<tr>
<td>Washington, D.C., poverty areas‡</td>
<td>1962-1964</td>
<td>40.5</td>
</tr>
<tr>
<td>Chicago, Illinois, poverty areas‡</td>
<td>1963-1965</td>
<td>39.6</td>
</tr>
<tr>
<td>Chicago, Illinois, high income areas§</td>
<td>1963</td>
<td>15.5</td>
</tr>
<tr>
<td>New York City, Central Harlem District</td>
<td></td>
<td>1966-1967</td>
</tr>
<tr>
<td>New York City, Fort Greene District</td>
<td></td>
<td>1966-1967</td>
</tr>
<tr>
<td>New York City, Borough of Queens</td>
<td></td>
<td>1966-1967</td>
</tr>
<tr>
<td>Boston, Massachusetts, poverty areas§</td>
<td>1964-1966</td>
<td>38.2</td>
</tr>
<tr>
<td>Boston, Massachusetts, middle class areas§</td>
<td>1964-1966</td>
<td>17.7</td>
</tr>
<tr>
<td>Non-White, U.S.A.**</td>
<td>1966</td>
<td>38.8</td>
</tr>
<tr>
<td>Non-White, non-metropolitan counties, U.S.A.**</td>
<td>1966</td>
<td>45.3</td>
</tr>
</tbody>
</table>

* Per 1,000 live births. Data from Latin America are by place of occurrence; data from U. S. are by residence.
† Source of data: Pan American Health Organization.
§ Source of data: Welfare Council, Chicago, Illinois, publication No. 2006 (high income: $8,400 or more)
¶ Source of data: Bureau of Records and Statistics, New York City Health Department.

States to solve its own problems, help it to improve the discharge of its obligations to the foreign graduates who staff its domestic programs, and assist all the nations of the Americas in meeting the health needs of their children.

The centers, urban and rural, in which research and training would be supported should be chosen from among those in areas where infant mortality is excessive, where the community and its political action groups want to do something about it, and where a university medical center is anxious to be actively involved.

Despite expected differences in the service content and staffing of each center, the objectives, program development and operations of all health centers would include five common elements.

1. **An initial study of the target area to be served, its people, problems and resources.** Rather than being a purely descriptive survey, such a study should have as its purpose the development of a series of hypotheses and objectives for feasible inexpensive operation and action leading to the reduction of death and serious disability among children in the target community (see Appendix). Community representatives should participate in the initial study and in the formulation of hypotheses and objectives. The study design should capitalize upon existing sources of data, the known general relationships between social and nutritional factors and disease, and the known capabilities of specific medical action to prevent or neutralize illness and nutritional deficiency.

2. **The delivery of personal services on the basis of teams which include community representatives in addition to the usual members of the health professions.** The professional leaders of these teams should delegate responsibilities to the maximum feasible extent. Training of all health center personnel is a necessary adjunct to this approach.

3. **Evaluation mechanisms which are built into the operational scheme, feed back
continuing appraisals of success or failure of the tests of the initial hypotheses and objectives, and lead to dynamic alterations of the objectives and the operations which stem from testing the hypotheses (see Appendix).

4. Supervised participation of undergraduate and postgraduate students of the health and health-related professions in relevant aspects of program development and operations. Both the teaching methods and the specified desired results of this learning experience should be evaluated periodically and the experience altered as indicated.

5. An effective system of intercommunication among the centers, a crucial component of which would be the active exchange of personnel in training and of teaching and research staffs. This would provide a mechanism for hemispheric interaction, enabling each center to profit from the experience of others as their hypotheses and programs grew and developed. Cross-fertilization among pediatricians of different cultures, faced with common problems, would favor germination of new ideas. Differences in legal position, professional attitudes, and acceptance by patients would provide frameworks for applying and testing a variety of training programs for paramedical and auxiliary personnel. Collaboration among several centers, on the other hand, would enable the study of factors requiring a broader base of evaluation than that afforded by a single center. Finally, the sharing of diverse experiences would provide a wide choice of alternatives in later adaptation of successful models to program planning on a national basis.

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REFERENCES


APPENDIX

Some examples of hypotheses which can be tested in health center field operations are given in the following list.

This list is not intended to be exclusive or to establish priorities. Many other hypotheses could be cited. The nature and priorities of the hypotheses to be field tested in any given health center should derive from the problems and character of the community it serves as expressed by its inhabitants and its health profile.

1. Simple, practical methods of population screening can be developed which will sort the target population into groups of high, medium, and low risk of dying from the most prevalent biomedical causes of mortality in the target area.

2. Given the same manpower resources, the combination of a minimum service program for low risk cases and an optimum service program for high risk cases will result in greater
overall reduction of death and serious disease than a uniform service program applied indiscriminately.

3. A retrospective, comprehensive investigation of selected deaths and hospitalizations of children can reveal contributory breakdowns in the system of care which serves a community and suggest changes in the system which will reduce the rates of death and hospitalization.

4. Simple, inexpensive techniques to identify, quantify, and locate the prevalence of malnutrition in a community can be developed.

5. Malnutrition characterized by inadequate growth and development is a significant problem in urban and rural poverty pockets.

6. Programs to improve child nutrition integrated with the total program of a health center will result in a reduction of infant mortality and the incidence of serious disease and will improve the growth and development of the children of the community.

7. Programs to provide day care and homemaker services integrated with the total program of a health center will result in a reduction of infant mortality and the incidence of serious disease and will improve the growth and development of the children of the community.

8. Provision of 24-hour medical or nursing telephone coverage, education of families in its use, and provision of telephone service in indigent households with young children will result in enough reduction in the frequency of health center visits to offset the added expense of providing the telephone services.

9. Responsibility for health supervision can be totally assumed by an adequately prepared professional nurse, supplemented by allied health workers and backed up by a pediatrician.

10. Parents can be taught to take the initiative in applying home remedies in the treatment of a specific pathologic condition. The widespread use of such home practices will result in decreased morbidity and mortality from that condition. An example is early oral fluid administration to avert diarrheal dehydration.
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Pediatrics 1969;44;760

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