tions Population Fund (UNFPA), and the United States Agency for International Development. The group met several times and also held consultations with health authorities of selected countries. Based on these meetings and consultations, it drafted a document to serve as the basis for discussion at the Special Meeting on Health Sector Reform ("Equitable Access to Basic Health Services: Toward a Regional Agenda for Health Sector Reform"; Document CD38/18, Rev. 1, Annex B). In addition, each Member State was asked to prepare a report on the principal problems facing the health sector and the reforms that had already been implemented or were planned. The available reports were distributed to all participants during the meeting.

The meeting consisted of an opening session at which representatives of the sponsoring agencies made formal statements, four panel discussions, and a closing discussion during which a resolution was adopted. The four panels dealt with options for reforming health care organization, options for reforming health care financing, the process of national health sector reform (e.g., consensus building, identification of inequities, time frame, approaches, and regulatory issues), and monitoring and external cooperation in support of national reform processes. Participation by the Member Governments in all the discussions was intense.

The Special Meeting ended with the adoption of Resolution CD38.R14, which called on the Member Governments to give priority to their national health sector reform processes and share their experiences; urged cooperation agencies to broaden their support for health sector reform, bearing in mind the particular characteristics of each country; and requested the Director to continue working with all parties to develop a process for monitoring health sector reform in the Americas and to coordinate establishment of a network for information exchange.

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Elimination of Congenital Syphilis

Congenital syphilis is a serious but preventable disease that affects between 160 000 and 240 000 newborns in the Region each year.[1] Unlike HIV and other viral sexually transmitted diseases (STDs) that infect neonates, congenital syphilis can be prevented or treated effectively in utero. The timely diagnosis and treatment of pregnant women and the avoidance of reinfection, in addition to interventions to prevent primary infection, are important tools in this process.

The occurrence of congenital syphilis can be considered a sentinel health event because it reflects failure of both disease

Source: Pan American Health Organization. Plan of action for the elimination of congenital syphilis. Washington, DC: PAHO; 2 May 1995. 17 pp. (Document CE116/14).

[1]Estimates of congenital syphilis cases are based on currently available syphilis seroprevalence data; over 90% of the reported prevalence rates are between 1.7% and 7.4%, and it is assumed that the effectiveness of current antenatal screening programs is between 40% and 80%. Therefore, congenital syphilis rates would be in the range of 1.0% to 1.5% of the nearly 16 million births occurring each year in the Americas.

control programs and the prenatal care services provided to a population. However, the data on congenital syphilis are sparse because currently it is not a reportable disease in many countries and cases frequently are not diagnosed, particularly asymptomatic cases and most cases resulting in stillbirth. Deficient data notwithstanding, there is enough information to indicate that the disease is an increasing problem and that more data need to be gathered (*1*).

RECENT REGIONAL EFFORTS TO PREVENT CONGENITAL SYPHILIS

In 1991, PAHO supported the Pan American Seminar on Congenital Syphilis, which was convened in Buenos Aires by the Argentine chapter of the Latin American Union against Sexually Transmitted Diseases. The purpose of the meeting was to establish the basis for an epidemiologic study of congenital syphilis in the Americas. The next step was the organization of a Technical Advisory Working Group for the Elimination of Congenital Syphilis in the Americas, convened at PAHO Headquarters in August 1992. The Working Group was multiprogrammatic and both governmental and nongovernmental organizations were represented, reflecting the coordination required among existing programs in the Region to achieve success in this effort. Participants reached consensus regarding the integration of proposed activities into PAHO programs such as Maternal and Child Health and Population, HIV/AIDS/STD, Health Services Development, and Women, Health, and Development.

At the Conference of Ministers of Health of the Ibero-American Countries, held in Brasília in May 1993, the Ministers reviewed a recommendation stressing the need for a broad proposal for the elimination of congenital syphilis. Concomitantly, the World Health Organization formed a informal technical group to study this problem; the group met in Geneva in October 1993. More recently, the XXIV Pan American Sanitary Conference in 1994 called for the development of a proposal for the elimination of congenital syphilis in the Region of the Americas. The Regional Plan of Action, which is summarized in this report, was presented to the PAHO Directing Council for review at its XXXVIII Meeting in September 1995. The Council urged the Member States to adopt the strategies outlined in the plan and to allocate the resources needed for its implementation (CD38.R8).

While health professionals considered initiatives to target maternal and congenital syphilis in developing countries, the U.S. Centers for Disease Control and Prevention (CDC) responded to a resurgence of congenital syphilis in the United States of America by rewriting its guidelines for the prevention and treatment of congenital syphilis, including a new, more sensitive case definition (*2*). Using the CDC case definition as a reference, the regional plan defines a case of congenital syphilis as the birth product (stillbirth or live birth) of a woman with serologic evidence of syphilis who was not adequately treated during pregnancy (*3*).

The new CDC guidelines are designed to improve surveillance of congenital syphilis and to help in the development and evaluation of programmatic measures to address the problem. Standardized and improved surveillance data will also permit an accurate assessment of the financial impact of congenital syphilis on the health care system. Since congenital syphilis reflects maternal syphilis in the community, it could also be an indicator of the extent to which adult syphilis is being correctly managed, diagnosed, and reported.

The CDC is collaborating with PAHO and WHO in developing approaches for the prevention of maternal and congenital syphilis and for enforcing surveil-

lance and interventions. One notable collaborative project is the WHO/PAHO/CDC Syphilis Serology Proficiency Testing Program, which has led to efforts to develop a sentinel laboratory surveillance program for syphilis. Many countries of the Region, including Brazil, Chile, Jamaica, and the United States, have already developed guidelines and adopted other measures for control of congenital syphilis that ultimately will lead to its elimination.

Multi-agency coordination will be essential to the success of the plan, since the activities proposed will be integrated into maternal and child health efforts, HIV/AIDS/STD prevention and control activities, and the health systems' promotion and information management programs.

REGIONAL PLAN OF ACTION

Goal, Purpose, and Outcomes

The goal of the five-year Regional Plan of Action is to establish a sound basis regionally for the eventual elimination of congenital syphilis as a public health problem in the Americas.[2] Progress toward this goal will be measured by the number of countries implementing effective plans of action for the elimination of congenital syphilis. The purpose of this initiative is to support countries in their efforts to significantly reduce the incidence of congenital syphilis and, in a few countries, to actually achieve elimination by the year 2000. Progress toward this goal will be measured by the incidence rates of congenital syphilis and completeness of reporting.

The goal and purpose outlined above will be achieved through the implementation of a series of measures aimed at producing the following outcomes:

- strengthened congenital syphilis detection, surveillance, and case investigation, measured by the proportion of mothers tested at delivery and the proportion of congenital syphilis cases investigated;
- early and appropriate treatment of infected pregnant women and their partners, measured by prenatal coverage, the proportion of pregnant women tested, and the proportion of infected women and partners treated;
- reduced syphilis prevalence in women of childbearing age, measured by seroprevalence rates in pregnant women;
- treatment and follow-up of infected newborns, measured by the proportion of congenital syphilis cases treated and provided with follow-up care.

The goal, purpose, and outcomes of the proposed plan of action are consonant with the commitment made by the Heads of State at the Summit of the Americas in Miami in December 1994 to provide universal access to a basic package of health services, including STD testing and treatment and timely, adequate prenatal care. The plan also responds to the Strategic and Programmatic Orientations for PAHO for the period 1995–1998.

The plan for congenital syphilis elimination will become part of a broader Regional HIV/AIDS/STD Program that will work to strengthen the ability of existing health services to interrupt the transmission of STD pathogens through screen-

[2]Elimination is defined as incidence rates of congenital syphilis (including stillbirths) equal to or below 0.5 cases per 1000 births, using the case definition cited above. The rationale for defining elimination in this way is derived from two expected outcomes of the process of eliminating congenital syphilis: (a) over 95% of infected pregnant women should be detected and treated during pregnancy, and (b) prevalence of syphilis in pregnancy should be reduced to under 1.0%.

ing, case-finding, effective treatment of patients and their sex partners, health promotion, prevention, community participation, and active surveillance.

Strategies and Methods

Three main strategies will be used to achieve the objectives of the Regional Plan of Action:

1. *Develop and/or strengthen congenital syphilis surveillance systems.*

Active surveillance is a key element of the plan of action. Countries should establish a congenital syphilis surveillance system to record and follow the children of mothers testing positive for syphilis at the time of delivery. Testing will allow for monitoring and treatment of infants and their mothers, and case investigations will provide information on the quality of prenatal care, including adherence to prenatal screening and treatment guidelines, and reasons for nonutilization of prenatal care services. At present, testing for syphilis at the time of delivery is generally done in certain cases only (such as when there was a lack of any prenatal care or a history of syphilis). For effective application of the proposed case definition of congenital syphilis, systematic testing at delivery must be standardized and considered the norm.

2. *Improve syphilis testing procedures of pregnant women.*

The plan recommends that serologic tests for syphilis in pregnant women be performed at least twice: during prenatal care and again at the time of delivery. Since the fetus may be infected as early as the ninth week of gestation, and because the severity of congenital syphilis lesions depends on the gestational age at the time of infection, the first test should be done during the first trimester of pregnancy or, if that is not possible, at the first prenatal visit. Women thought to be at high risk for STDs should be rescreened in the final trimester of pregnancy. Ideally, the test results and appropriate treatment should be available the same day, before the pregnant woman leaves the health facility. This requires the use of rapid tests, such as the Rapid Plasma Reagin test (RPR). The plan recommends the establishment of laboratory guidelines that ensure that immediate reading of RPR results is a standard procedure.

With respect to testing at delivery, the plan recommends testing the mother rather than the infant, because tests on the latter often yield inconclusive results.

3. *Strengthen the capacity of prenatal care services to provide appropriate clinical management of maternal syphilis.*

Research in Argentina, Brazil, and the United States has established the close relationship between congenital infection with syphilis and a lack of or inadequate prenatal care.

Numerous studies have demonstrated that penicillin is effective in treating maternal infection, in preventing transmission to the fetus, and in treating fetal infection (*3, 4*). Adequate treatment for syphilis during pregnancy consists of two doses of benzathine penicillin G 2 400 000 UI/IM administered one week apart; for late-acquired syphilis, an additional dose is administered one week later.

It is recommended that all patients testing positive for syphilis receive counseling in order to obtain their voluntary consent for HIV testing. The efficacy of current doses of penicillin therapy in women with HIV co-infection is still unknown; for that reason, some authors have suggested extending treatment for four weeks.

Countries should institute or strengthen partner notification and treatment policies to prevent reinfection of women who

have tested positive for syphilis and have been treated during prenatal care. These policies should be incorporated into existing HIV/AIDS/STD services.

Proposed Activities

PAHO will carry out the following activities during the five-year plan period:

1. Assist in the development of country plans of action for the elimination of congenital syphilis by creating program guidelines, developing and field-testing training materials, providing training, and disseminating relevant materials.

2. Develop quality assurance networks for syphilis testing at the country level and in intercountry reference laboratories through support for development and maintenance of quality standards, provision of training, promotion and facilitation of linkage of national reference laboratories with the WHO/PAHO/CDC Syphilis Serology Proficiency Program, and provision of direct technical assistance as needed; and develop a research agenda to include field testing of simplified methods for syphilis serology testing.

3. Implement regional guidelines for congenital syphilis surveillance and for monitoring syphilis testing during prenatal care through provision of training and other direct technical cooperation as needed, creation of a regional surveillance and information system, and promotion of operational research.

The corresponding activities at the country level will involve development of a national plan of action, establishment of a national quality assurance network for syphilis testing linked to the WHO/PAHO/CDC regional network, and implementation of national guidelines for congenital syphilis surveillance and for monitoring syphilis detection and treatment during prenatal care.

Resources

PAHO will seek financial resources from United Nations agencies and programs and other organizations working on child survival and reproductive health issues to support the development and implementation of the plan at the country level. A budget for regional activities has been prepared for 1996 through 1999. Each Member State should elaborate it own detailed country budget for the implementation of national plans.

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