SERIES

Renewing Primary Health Care in the Americas

No. 4

Integrated Health Service Delivery Networks

Concepts, Policy Options and a Road Map for Implementation in the Americas

Pan American Health Organization

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Area of Health Systems Based on Primary Health Care (HSS)
Integrated Health Services Project (HSS/IS)
Office of the Assistant Director
Pan American Health Organization PAHO
World Health Organization WHO

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EXECUTIVE SUMMARY

Health systems in the Americas are characterized by highly fragmented health services. Experience to date demonstrates that excessive fragmentation leads to difficulties in access to services, delivery of services of poor technical quality, irrational and inefficient use of available resources, unnecessary increases in production costs, and low user satisfaction with services received.

Health services fragmentation manifests itself in multiple ways at the different levels of the health system. Regarding the overall performance of the system, fragmentation is evident in the lack of coordination across the different levels and sites of care, duplication of services and infrastructure, unutilized productive capacity, and the provision of health services at the least appropriate location, particularly hospitals. Regarding the experience of system users, fragmentation is apparent in the lack of access to services, loss of continuity of care, and failure of services to meet users' needs.

Although fragmentation is a common challenge in the majority of the region's countries, its magnitude and primary causes differ in each context. The leading causes of fragmentation at the regional level are: institutional segmentation of the health system, decentralization of health services that fragments the levels of care, the predominance of programs targeting specific diseases, risks and populations (vertical programs) that are not integrated into the health system, the extreme separation of public health services from the provision of personal care, a model of care centered on disease, acute care, and hospital-based treatment, the weak steering role capacity of the health authority, problems with the quantity, quality and allocation of resources, and the financing practices of some international cooperation agencies/donors that promote vertical programs.

In general, the sectoral reforms of the eighties and nineties did not consider the unique characteristics of each country. Instead, they tended to adopt standardized models that focused on changes in financing and management, the deregulation of the labor market, decentralization, and the promotion of competition among different health providers and insurers. The reforms also failed to promote essential coordination and synergy among the system's functions, neglecting their complex inter-relationship and contributing to increased fragmentation.

Moreover, population aging, the emergence of chronic diseases and comorbidities, and an increase in citizens' expectations require more equitable, comprehensive, integrated, and continuous responses on the part of health systems. The achievement of national and international health goals, including the Millennium Development Goals (MDGs), will require greater, more effective investment in health systems. In recent years, the trend in the region has been to introduce policies that promote collaboration among health providers as a way to improve the efficiency of the system and the continuity of care.

The region is home to several good practices in the creation of Integrated Health Service Delivery Networks (IHSDNs), especially in countries like Brazil, Canada, Chile, Costa Rica and Cuba, which have traditionally supported the development of networks. Other countries in Latin America and the Caribbean are adopting similar policies to organize their health services. Despite these efforts, addressing fragmentation and providing more equitable, comprehensive, integrated, and continuous health services remain significant challenges for the majority of countries in the Americas.

From May to November 2008, PAHO held a series of country consultations based on a draft position paper on IHSDNs to discuss health services fragmentation and strategies to address this problem. The principal achievements of the consultations were confirmation of the urgent need to address the issue of fragmentation and validation of the PAHO IHSDN Initiative.

Resolution CD49.R22 on IHSDNs Based on Primary Health Care was adopted during the 49th PAHO Directing Council on October 2, 2009, which also provided new observations for the position paper on IHSDNs. This document is the principal result of these processes. It analyzes the challenge of health services fragmentation, proposes a conceptual and operational framework for understanding IHSDNs, presents public policy instruments and institutional mechanisms to develop networks, and proposes a "road map" for implementing IHSDNs in the countries of the Americas.

The purpose of the IHSDN Initiative is to contribute to the development of PHC-based health systems, and thus to health services delivery that is more accessible, equitable, efficient, of higher technical quality, and that better fulfills citizens' expectations. PAHO considers IHSDNs as one of the principal operational expressions of PHC-based health systems at the health services level, helping to make several of its most essential elements a reality such as universal

coverage and access, first contact, comprehensive, integrated and continuous care, appropriate care, optimal organization and management, family and community orientation, and intersectoral action, among others.

> *Integrated Health Service Delivery Networks can be defined as "a network of organizations that provides, or makes arrangements to provide, equitable, comprehensive, integrated, and continuous health services to a defined population and is willing to be held accountable for its clinical and economic outcomes and the health status of the population served."*

As follows from the previous definition, IHSDNs do not require all of their member health services to be under single ownership. On the contrary, some services can be provided through a variety of contractual arrangements or strategic partnerships in what has been termed "virtual integration." This characteristic of IHSDNs makes it possible to explore options for complementary services between organizations with different legal status, either public or private. The concept of IHSDNs also provides a suitable framework for collaboration between different countries through efforts such as the "shared services" in the small islands of the Caribbean or services along common borders.

Several studies suggest that IHSDNs can improve accessibility to the system, reduce health care fragmentation, improve overall system efficiency, prevent the duplication of infrastructure and services, lower production costs, and better meet people's needs and expectations.

Given the wide range of health system contexts, it is impossible to prescribe a single organizational model for IHSDNs; in fact there are multiple possible models. The public policy objective is to propose a design that meets each system's specific organizational needs. Despite the diversity of contexts previously noted, the experience of recent years indicates that IHSDNs must possess the following essential attributes for proper performance (grouped according to four principal domains):

Model of care: 1) clear definition of the population/territory covered and extensive knowledge of the health needs and preferences of this population, which determine the supply of health services; 2) an extensive network of health care facilities that offers health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care,

and that integrates programs targeting specific diseases, risks and populations, as well as personal and public health services; 3) a multi-disciplinary first level of care that covers the entire population, serves as a gateway to the system, and integrates and coordinates health care, in addition to meeting most of the population's health needs; 4) delivery of specialized services at the most appropriate location, preferably in non-hospital settings; 5) existence of mechanisms to coordinate health care throughout the health service continuum; and 6) care that is person-, family- and community-centered and that takes into account cultural and gender-related characteristics and diversity.

Governance and strategy: 7) a unified system of governance for the entire network; 8) broad social participation; and 9) intersectoral action that addresses wider determinants of health and equity in health.

Organization and management: 10) integrated management of clinical, administrative and logistical support systems; 11) sufficient, competent and committed human resources for health that are valued by the network; 12) an integrated information system that links all network members with data disaggregated by sex, age, place of residence, ethnic origin, and other pertinent variables; and 13) results-based management.

Financial allocation and incentives: 14) adequate funding and financial incentives aligned with network goals.

Policymakers, health service managers, and providers have a series of public policy instruments and institutional mechanisms that can assist them in creating IHSDNs. Appendix C of this document presents a list of options that were developed based on a literature review, expert opinion and recommendations from country consultations. The relevance of these instruments and mechanisms will depend on the political, technical, economic, and social viability of each particular context. In any case, and regardless of which instruments or mechanisms are used, they should always be backed by a state policy that promotes IHSDNs as a key strategy for achieving more accessible, comprehensive, integrated, and continuous health services. In turn, this policy framework should be underpinned by a coherent legal framework consistent with the development of IHSDNs, on operations research and the best available scientific knowledge.

Past implementation of IHSDNs has yielded valuable lessons that are helpful in formulating a successful implementation strategy. The most important of these are: a) integration processes are difficult, complex and long term; b) integration processes require extensive systemic

changes and partial interventions are insufficient; c) integration processes require a commitment by health workers, health service managers and policymakers; and d) integration of services does not mean that everything must be integrated into a single modality; multiple modalities and degrees of integration can coexist within a single system.

The IHSDN Initiative also requires a "road map" that establishes certain priority areas for action and a general timetable for implementation while acknowledging the different reality in each country. In this regard, the consultations with countries emphasized the following priorities for PAHO technical cooperation: a) information systems (attribute 12), b) governance (attribute 7), c) management of clinical, administrative and logistical support (attribute 10), d) financial allocation and incentives (attribute 14), e) first level of care (attribute 3), f) human resources (attribute 11), g) care coordination mechanisms (attribute 5) and h) focus of care on the person, the family and the community (attribute 6).

The timetable for the implementation of the Initiative includes two phases: the first phase (2009-2010) involves the identification of the principal problems related to health services fragmentation and the preparation of national plans for developing IHSDNs; the second phase (from 2011 onward) will involve the implementation of the national plans and their ongoing evaluation. The IHSDN Initiative falls under the PAHO Strategic Plan 2008-2012 and the Organization will give priority to countries that have programmed the development of IHSDNs within their respective biennial work plans.

PAHO has garnered the support of other partners for the Initiative, including the Brazilian Ministry of Health, the German Technical Cooperation Agency (GTZ), the Catalan Consortium of Health and Social Services (CSC), the Antioquia Hospitals Cooperative (COHAN), the United States Agency for International Development (USAID), and the Spanish Agency for International Development Cooperation (AECID) through the Spain-PAHO Fund.

INTRODUCTION

The urgent need to integrate health services

The PAHO Integrated Health Service Delivery Networks (IHSDNs) Initiative emerges at a time of renewed global and regional interest to strengthen health systems, combat the segmentation and fragmentation of health systems, and advance towards more equitable, comprehensive, integrated, and continuous health services delivery for all inhabitants of the region. As the Director of PAHO/WHO, Dr. Mirta Roses, has stated:

> *"The majority of countries in our region require profound structural changes in their health systems so that these systems can contribute effectively to social protection, to guaranteeing the right to health for all of their citizens, and to social cohesion. As part of these changes, overcoming the following is essential: a) The segmentation of health systems, that is, the coexistence of subsystems with different financing modalities and arrangements, reflecting social segmentation by ability to pay or type of employment. This structural feature increases inequality between social groups and is a factor of social exclusion. So, the poor and informal workers are left out;…. b) Organizational fragmentation, (that is) the coexistence of infrastructure and capacities of several subsystems within the same territory, without coordination and integration. This raises costs due to duplication and higher transaction costs and generates different types and qualities of services … " (1).*

The achievement of national and international health goals, including the MDGs, requires greater, more effective investment in health systems. Although more resources for health are necessary, governments are also seeking new ways to do more with existing resources (*2*). In a world where poor health system performance is increasingly scrutinized, the need to address the problem of health services fragmentation becomes an imperative (*3,4*).

Experience to date demonstrates that excessive health services fragmentation leads to difficulties in access to services, the delivery of services of poor technical quality, the irrational and inefficient use of available resources, unnecessary increases in production costs, and low user satisfaction with the services received. Moreover, population aging, the emergence of chronic diseases and comorbidities, and an increase in citizens' expectations require more equitable, comprehensive, integrated, and continuous responses on the part of health systems.

Global and regional mandates that support the development of more equitable, comprehensive, integrated, and continuous models of care

The search for more equitable, comprehensive, integrated, and continuous models of health care is not new. Several countries in the region have spent years designing and implementing models of care to this end. In many cases, these efforts were inspired by the Declaration of Alma-Ata in 1978. In Article VII, the Declaration states that Primary Health Care (PHC) "*should be sustained by integrated, functional and mutually supportive referral systems…., leading to the progressive improvement of comprehensive health care for all and giving priority to those most in need*" (*5*). This objective was ratified for a second time by the PAHO Member States in 2005, as part of the process to renew PHC in the Americas. Article III of the Declaration of Montevideo states: "*health care models should… work for the establishment of health care networks and social coordination that ensures adequate continuity of care*" (*6*).

In June 2007, the Health Agenda for the Americas 2008-2017, in paragraph 49, points out that "*strengthening referral and cross-referral systems and improving health information systems at the national and local levels will facilitate the delivery of services in a comprehensive and timely fashion*" (*7*). In July of the same year, the Iquique Consensus, achieved at the XVII Ibero-American Summit, underscores in paragraph 6 *"the need to develop health service networks that are based on primary care, public financing and universal coverage, and that are coordinated with other social networks, given their capacity to mitigate the effects of segmentation and fragmentation*" (*8*). More recently, the WHO World Health Assembly adopted Resolution WHA62.12 on PHC, which includes health systems strengthening and states in item 1.3 on models of care: "*…. that provide comprehensive primary health care services, including health promotion, disease prevention, curative care and palliative care, that are integrated with other levels of care and coordinated according to need, while ensuring effective referral to secondary and tertiary care"* (*9*).

Despite efforts made by countries in the region, and as reaffirmed in the previous declarations, combating fragmentation and providing more equitable, comprehensive, integrated, and continuous health services remain an imperative for the majority of countries in the Americas. Based on a draft position paper on the subject, PAHO held a series of country consultations from May to November 2008 to discuss health services fragmentation and strategies to address it. The following consultations were carried out: ten national consultations (Argentina, Belize, Brazil, Chile, Cuba, Ecuador, Mexico, Paraguay, Trinidad and Tobago, and Uruguay); two sub-regional consultations (Central America and countries in the Eastern Caribbean and Barbados); and one regional consultation in Belo Horizonte, Brazil, where more than 30 countries from the region participated. The principal achievements of the consultations were confirmation of the need to address the problem of services fragmentation and validation of the PAHO Initiative on IHSDNs. Finally, on 2 October 2009, in the 49th PAHO Directing Council, Resolution CD49. R22 on Integrated Health Service Delivery Networks was adopted (see Appendix D). The Council meeting also produced new observations for the position paper on IHSDNs. The current document is the principal result of these processes.

The purpose of the PAHO/WHO Initiative on Integrated Health Service Delivery Networks

The purpose of the PAHO Initiative on Integrated Health Service Delivery Networks (IHSDNs) is to contribute to the development of PHC-based health systems, and thus to health services delivery that is more accessible, equitable, efficient, of higher technical quality, and that better fulfills citizens' expectations. According to PAHO (*10*), a PHC-based health system entails:

> *"An overarching approach to the organization and operation of health systems that makes the right to the highest attainable level of health its main goal while maximizing equity and solidarity. A PHC-based health system is composed of a core set of functional and structural elements that guarantee universal coverage and access to services that are acceptable to the population and that are equity-enhancing. It provides comprehensive, integrated and appropriate care over time, emphasizes health promotion and prevention, and assures first contact care. Families and communities are its basis for planning and action. A PHC-based health system requires a sound legal, institutional and organizational foundation as well as adequate and sustainable human, financial and technological resources. It employs optimal organization and management practices at all levels to achieve quality, efficiency, and effectiveness and develops active mechanisms to maximize individual and collective participation in health. A PHC-based health system develops intersectoral actions to address determinants of health and equity."*

PAHO considers IHSDNs as one of the principal operational expressions of PHC-based health systems at the health services level, helping to make several of its most essential elements a reality such as universal coverage and access, first contact, comprehensive, integrated and continuing care, appropriate care, optimal organization and management, family and community orientation, and intersectoral action, among others. Figure 1 presents the values, principles, and essential elements of a PHC-based health system.

Figure 1. Values, principles and essential elements of a PHC-based health system

SOURCE: Pan American Health Organization/World Health Organization (2007). The Renewal of Primary Health Care in the Americas: Position Paper of the Pan American Health Organization/World Health Organization. Washington, D.C.

Scope of document

This position paper analyzes the challenge of health services fragmentation, proposes a conceptual and operational framework for understanding IHSDNs, presents public policy instruments and institutional mechanisms to develop integrated networks, and proposes a “road map” for implementing IHSDNs in the Americas. The document focuses on the integration of the health services delivery function, and as a result it does not address mechanisms to integrate the health systems functions of financing and/or insurance. Furthermore, it does not address in detail the mechanisms to integrate programs targeting specific diseases, risks and populations (vertical programs) into health systems.

CHAPTER 1: THE CHALLENGE OF HEALTH SERVICES FRAGMENTATION IN THE AMERICAS

The macro context of health services: health systems

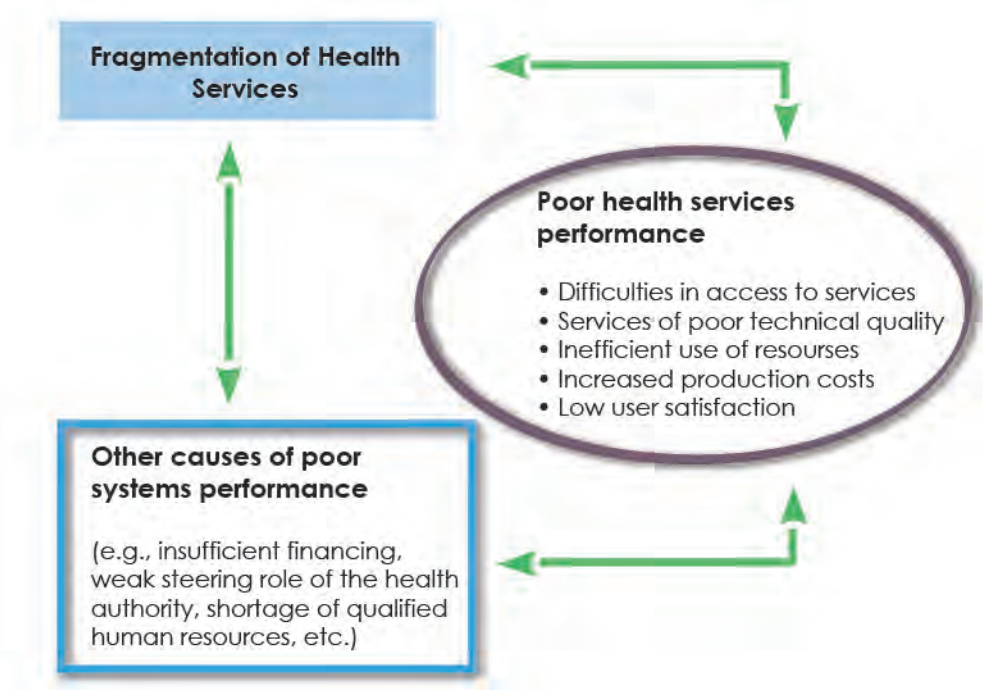
The macro context of health services primarily refers to the characteristics of the health systems in which these services exist. Health systems have been characterized in various ways. WHO defines health systems as all organizations, people and actions whose primary intent is to promote, restore or maintain health (*11*). Health systems have three principal functions: stewardship, financing, and health services delivery. The specific characteristics of each health system depend on the history and political and socioeconomic conditions of each country as well as the degree of influence exerted by different interest groups and political forces.

The history of the creation and development of health systems in the region is closely linked with the evolution of social protection schemes in the context of the welfare state, which emerged in the Western world at the start of the twentieth century. Yet unlike the models established in most European countries, the Latin American subsystems were targeted at specific strata of the population, grouped by social class, income, occupation, type of employment, ethnic origin, or urban or rural residence, producing a phenomenon of population segregation that stratified the exercise of the right to health. As a result, the traditional organizational structure of health systems in Latin America consisted of separate subsystems targeting specific strata of the population, which led to higher segmentation and fragmentation and profoundly affected their performance (*12*).

The challenge of health services fragmentation

High levels of segmentation and fragmentation characterize health systems in the Americas (*13*,*14,15*). Fragmentation is a major cause of poor performance of health services and systems. Fragmentation by itself, or in conjunction with other factors, can lead to difficulties in access to services, delivery of services of poor technical quality, irrational and inefficient use of available resources, unnecessary increases in production costs, and low user satisfaction with services received (*16,17,18*). Fragmentation can also result from other factors such as insufficient financing that impedes the delivery of comprehensive, integrated, and continuous services. Fragmentation can also affect other causal factors, which in turn have a negative impact on the overall performance of the system (e.g., duplication of laboratory tests that brings with it unnecessary cost increases, which in turn decreases the level of financing available for the system) (see figure 2).

Figure 2. The relationship between fragmentation and health services performance



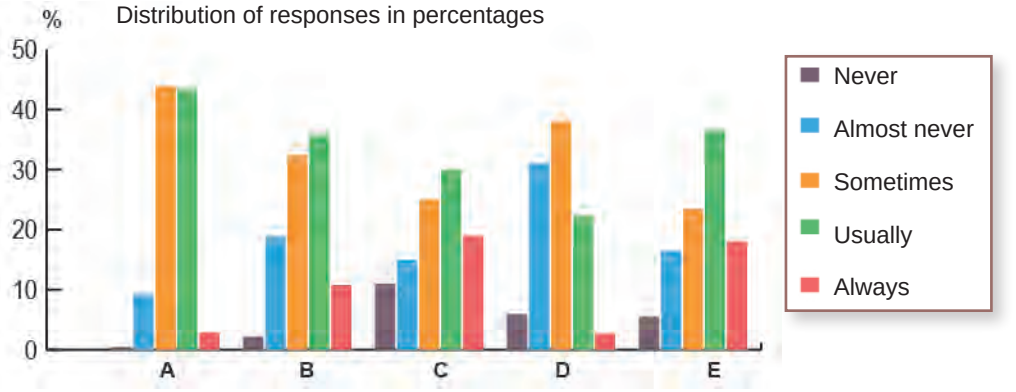
SOURCE: Own elaboration.

Health services fragmentation manifests itself in multiple ways at the different levels of the health system. At the health system level, fragmentation manifests itself as lack of coordination between the different levels of care and care settings, duplication of services and infrastructure, unutilized productive capacity, and health care provided at the least appropriate location, especially hospitals. Specific examples include the inability to resolve the majority of health problems at the first level of care, the use of emergency services for specialized care instead of outpatient services, hospitalization of patients whose illness could have been treated on an ambulatory basis, or extended hospital stays due to difficulties discharging patients with social problems.

In people's experiences with the system, fragmentation manifests itself as lack of access to services, loss of continuity of care, and the failure of services to meet users' needs. Specific examples include suppressed demand, waiting lists, late referrals, the need to visit multiple sites of care to treat a single episode of illness, or the lack of a regular source for services. Other examples are unnecessary repetitions of medical history-taking and diagnostic tests or interventions that do not take into account the cultural characteristics of certain population groups.

In surveys conducted by PAHO, both first level and specialized care managers considered health services fragmentation to be a serious problem (*19,20,21*). For example, only 22% of first level respondents and 35% of specialized care managers/providers considered that the referral and counter-referral systems between levels of care were working properly. Regarding the setting of care, respondents noted that almost 52% of hospitalized patients could have been treated outside of the hospital environment. Finally, only 45% of first level interviewees reported that the same medical/health team examined patients over time; that is, few have a regular source of care.

Graph 1: Survey on perceptions about the level of health care coordination in 16 countries of Latin America and the Caribbean, 2002



A. Are patients seen by the same provider (doctor/ health team) whenever they consult?
B. Is there an appointment and follow-up system, including arranging home visits by the health team?
C. Is assigning people from a geographical area to lists or registries with a specific PHC provider or provider group encouraged?
D. Does an adequate referral and counter-referral system based on case complexity function in practice?
E. Is there a policy that enables ensuring that PHC facilities are regularly covered by physicians or nurses?

SOURCE: OPS/OMS (2004). Revisión de las políticas de atención primaria de salud en América Latina y el Caribe Volúmenes I y II. Área de Tecnología y Prestación de Servicios de Salud/Unidad de Organización de Servicios de Salud.

Although fragmentation is a common challenge in the majority of the region's countries, its magnitude and primary causes differ in each context. Notwithstanding, the literature review and country consultations highlighted the following leading causes of fragmentation:

- Institutional segmentation of the health system;
- Decentralization of health services that fragments the levels of care;
- Predominance within health services of programs targeting specific diseases, risks and populations (vertical programs) with no coordination or integration into the health system;[1]
- Extreme separation of public health services from the provision of personal care;
- Model of care centered on disease, acute care, and hospital-based treatment;

1 There are exceptional situations in which vertical programs can play a specific role, such as in fragile states, in the control of large-scale epidemics or health emergencies, or in the provision of services to special population groups such as prisoners, drug addicts and sex workers (World Health Organization. Integrated health services – what and why? Technical Brief No. 1. Geneva, 2008).

- Weak steering role capacity of the health authority;
- Problems with quantity, quality and allocation of resources;
- Deficiencies in definition of roles, competencies and contracting mechanisms, as well as disparities in health workers' wages;
- Multiplicity of payer institutions and service payment mechanisms;
- Behaviors of the population and of service providers that run counter to integration;
- Legal and administrative obstacles; and
- Financing practices of some international cooperation agencies/donors that promote vertical programs.

Profound changes in the environment and roles and functions of health services

Decreased fertility rates, increased life expectancy and population aging are important demographic changes that strongly affect the epidemiological profile of the population, and thus the demand for health services. Population aging leads to an increase in chronic diseases and comorbidities, which in turn challenge the response capacity of services. Increased prevalence of chronic diseases requires greater integration between the first level of care and specialized care. Furthermore, many systems face additional problems that are associated with poverty and social exclusion (e.g., infectious diseases and malnutrition) as well as new challenges such as HIV/AIDS, unhealthy lifestyles, increased violence, accidents, and mental health problems.

Moreover, users are demanding higher-quality services that are better adapted to their individual and group preferences. Today, people have greater access to health information as well as greater awareness of health-related rights. Users are becoming more conscious of their individual health needs and are demanding more comprehensive, integrated health coverage provided in settings closer to their homes and accessible 24 hours a day (*22*). This situation is leading service provider organizations to change their traditionally closed, self-contained approach to one that is more open to citizen participation and people-centered care.

From the standpoint of service supply, medical and technological innovations demonstrate the need to adapt models of care while also facilitating greater collaboration among different service providers. Examples of such innovations are new screening methods, gene therapy, laparoscopic techniques, minimally invasive surgery, organ transplantation, imaging technology, and

telemedicine. From the financial standpoint, almost all countries in the region have seen increases in the costs of care and the application of new payment mechanisms to contain these increases. Another important challenge is the shortage of skilled health workers. Many countries are experiencing the emigration of health workers after years of investment in their training. Moreover, there are problems regarding systems' capacities to adapt current professional and labor profiles to changes in the epidemiological profile and technological innovations. There are also serious inequities with regard to the geographic distribution of human resources for health, particularly in the countries' rural and more isolated areas.

Several more widespread changes are also exerting pressure on services and forcing them to be more anticipatory, flexible and adaptable. Globalization, for example, brings with it greater opportunities for exchange of health-related information and knowledge, but also increases the risk of transmission of infectious diseases at the global level. Globalization is also facilitating the movement of people who seek services in other countries (transnational provision). Other global problems are the humanitarian crises motivated by conflicts of varying intensity, global warming, severe environmental degradation, and the existence of fragile states, all of which have the potential to generate new and sudden demands that can easily cause the existing supply of health services to collapse.

Furthermore, the poor performance of public services, access-related difficulties, and the high cost of private services are being questioned by governments, society in general, and above all, system users. This questioning has led to broader State modernization and reform efforts that seek, among other things, a more efficient, rational use of public resources, accountability by the State, and better regulation of both the public and private sectors.

In general, the sectoral reforms of the eighties and nineties failed to consider the unique characteristics of each country. Instead, they tended to adopt one-size-fits-all models focused on changes in financing and management, the deregulation of the labor market, decentralization, and the promotion of competition among different health providers and insurers. These reforms also failed to promote the essential coordination and synergy among systems' functions, ignoring their complex inter-relationships and contributing to increased health services fragmentation (*23,24*).

Recent years have witnessed a tendency to abandon competition and introduce policies that promote collaboration among health providers as a way to improve system efficiency

and continuity of health care. The region is home to several good practices in the creation of IHSDNs, especially in countries like Brazil, Chile, Costa Rica and Cuba, which have traditionally supported the development of networks. Other countries in Latin America and the Caribbean are adopting similar policies to organize their health services (see table 1). In North America, there are noteworthy experiences such as Kaiser Permanente and the Veterans Health Administration, both in the United States of America, as well as the health services system in the region of Montérégie, Quebec, Canada, among others.

Table 1. Selected health services integration initiatives in countries in Latin America and the Caribbean

Country	Initiative	Objective
Argentina (a)	Law creating the Integrated Federal Health System	Achieve harmonious, adequately coordinated integration of the components that make up the health system, within a network that follows a national plan and responds rationally and effectively to the needs of the population measured through the development of a health map.
Bolivia (b)	Municipal Network of Intercultural Family Community Health and Service Network	Establish networks of first-, second- and third-level health facilities, which may belong to one or more municipalities, articulated with and complemented by traditional medicine, within the framework of interculturalism and social structure in health management.
Brazil (c)	More Health: A Right for Everyone 2008-2011	Integrate promotion, prevention and care activities into a broad perspective of health care, reviving the Federal Manager's role as a catalyst, to coordinate the organization of health networks with a development-model perspective that strives for equity in its personal and territorial dimensions.
Chile (d)	Health Care Networks based on Primary Care	Develop health networks by designing policies for their coordination and articulation to meet users' health needs with equity and respect for human rights and dignity, all within the framework of health objectives.
Dominican Republic (e)	Regional Health Service Network Model	Create organizational and operational model of care mechanisms that aim to provide services in a more rational, comprehensive and integrated manner, taking the family and its relationship to social processes as a starting point.
El Salvador (f)	Law creating the National Health System	Establish a model to organize system members' health facilities into functional networks for the delivery of health services to the population in conditions of quality, equity and continuity.

continued

Tablle 1. (continued)

Country	Initiative	Objective
Guatemala (g)	Coordinated Health Care Model	Implement a comprehensive and integrated care model involving the Ministry of Public Health and Social Welfare and the Guatemalan Social Security Institute for delivery of the Basic Services Package in the Departments of Escuintla and Sacatepéquez. This experience lasted until 2003.
Mexico (h)	Functional Integration of the Health System	Facilitate the convergence (of health services) and the portability (of health insurance) between different institutions in the sector such as the Ministry of Health, the Mexican Social Security Institute, the Mexican Petroleum Company, and the Institute for Social Security and Services for State Workers.
Peru (i)	Guidelines for Network Formation	Promote the formation of multiple networks of providers from public and private entities with accredited and organized services, promoting competition, effectiveness, efficiency, and quality of care for the entire population, without exclusions.
Trinidad and Tobago (j)	Experience of the Eastern Regional Health Authority	Create an integrated health service network between primary care facilities (polyclinics and health centers) and the Sangre Grande Hospital.
Uruguay (k)	Integrated National Health System	Implement a model of comprehensive and integrated care based on a common health strategy, coordinated health policies, comprehensive and integrated programs and actions for the promotion, protection, early diagnosis, timely treatment, recovery, and rehabilitation of users' health, including palliative care.
Venezuela (l)	Health Network of the Metropolitan District of Caracas	Reorient the model of care to address the quality of life and health needs of the population, focusing on the construction of integrated health networks that provide regular, adequate, timely, and equitable responses to these needs, while ensuring universality and equity.

SOURCES: (a) Ministerio de Salud (2008). Borrador para el debate: ley de creación del sistema federal integrado de salud: proyecto de creación del sistema federal integrado de salud: convocatoria a un debate amplio y fecundo, (unpublished draft, copy available upon request); (b) Ministerio de Salud y Deportes (2008). Norma Nacional Red Municipal de Salud Familiar Comunitaria Intercultural y Red de Servicios; (c) Ministério da Saúde (2008). Mais Saúde: Direito de todos 2008-2011; (d) Ministerio de Salud (2008). Misión Institucional de la Subsecretaría de Redes Asistenciales. http://www.redsalud.gov.cl/portal/url/page/minsalcl/g_conozcanos/g_subs_redes_asist/presentacion_subs_redes_asist.html; (e) Secretaría de Estado de Salud Pública y Asistencia Social (2005). Modelo de red de los servicios regionales de salud: una guía para el desarrollo de los servicios de salud para la atención a las personas. (f) Ministerio de Salud (2008). Reglamento de la Ley de Creación del Sistema Nacional de Salud. Decreto Ejecutivo no. 82, Diario oficial. http://asp.mspas.gob.sv/regulacion/pdf/reglamento/Reglamento_ley_sistema_nacional_salud.pdf; (g) Ministerio de Salud Pública y Asistencia Social. Experiencias/lecciones aprendidas de coordinación/integración de sistemas y redes de servicios de salud, Guatemala, junio 2008, (unpublished presentation, copy available upon request); (h) Consejo Nacional de Salud (2008). Resumen de aportes de la consulta nacional de México sobre la propuesta de los SISS, México, DF, 3 de noviembre de 2008, (unpublished workshop report, copy available upon request); (i) Ministerio de Salud (2002). Lineamientos para la conformación de redes, (copy available upon request); (j) PAHO Trinidad and Tobago. National Consultation on Integrated Delivery Systems, Kapok Hotel, 16-18 Cotton Hill, St. Clair, (unpublished workshop report, copy available upon request); (k) República Oriental del Uruguay, Cámara de Senadores (2007). Sistema Nacional Integrado de Salud: creación. XLVI.a Legislatura. (l) Distrito Metropolitano de Caracas, Ministerio de Salud y Desarrollo Social (2005). Taller sobre "Definición de Redes de Servicios de Salud del Distrito Metropolitano de Caracas".

With regard to the financing practices of some international cooperation agencies/donors, many of these organizations are currently questioning the effectiveness of cooperation centered exclusively on vertical programs and are reorienting their cooperation toward strengthening health systems with a more integrated approach. In March 2005, the Paris Declaration pledged to reduce the fragmentation of international assistance and to promote international cooperation based on the principles of country ownership, alignment, harmonization, managing for results and improved accountability (*25*). In December 2005, the Global Alliance for Vaccines and Immunizations (GAVI) approved the use of part of its funds to strengthen health systems (*26*). More recently, the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) also decided to support health systems strengthening to the extent that it helps to combat these three diseases (*27*). Within this framework, WHO has launched the initiative "Maximizing Positive Synergies between Health Systems and Global Health Initiatives" with the goal of ensuring that health systems and the selected interventions carried out through global health initiatives are mutually reinforcing and can lead to greater achievements for global public health (*28*).

Despite previous efforts, the mechanisms and incentives to promote clinical integration and the development of integrated networks are still poorly developed and need to be considered in the future development of health systems (*29,30,31,32,33*).

CHAPTER 2: INTEGRATED HEALTH SERVICE DELIVERY NETWORKS

The concept of comprehensive, integrated, and continuous health services and its different modalities

The concept of comprehensive, integrated, and continuous health services is not new; however, it can have multiple interpretations and uses (*34,35*). This diversity of interpretations partly explains the difficulties in understanding the term's meaning, sharing experiences, preparing proposals for action, and evaluating advances in this arena. In response to this situation, the following definition of comprehensive, integrated, and continuous health services is proposed:

> *"the management and delivery of health services such that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, through the different levels and sites of care within the health system, and according to their needs throughout the life course."*

SOURCE: Modified from WHO. Integrated Health Services–What and Why? Technical Brief No.1, May 2008.

Furthermore, the concept of continuity of care refers to how people experience the level of integration of services, and can be defined as:

> *"the degree to which a series of discrete health care events is experienced by people as coherent and interconnected over time, and consistent with their health needs and preferences."*

SOURCE: Modified from Haggerty JL, Reid RJ, Freeman GK, Starfield B, Adair CE, McKendry R. Continuity of Care: A Multidisciplinary Review. 2003; 327(7425):1219–1221 BMJ.

The definition of comprehensive, integrated, and continuous health services is quite encompassing and can be expressed, for example, as a broad set of preventive and curative interventions for a specific population group (e.g., the Integrated Management of Childhood Illness or IMCI strategy); as multi-care centers (e.g., multi-purpose clinics); as the integration between health providers and insurers (e.g., health maintenance organizations in the USA); as the integration between Ministry of Health and Social Security health services; and as the integration between different sectors of the economy (e.g., public-private complementarity, coordination with social services, etc.).

Furthermore, integration can also have different modalities such as horizontal integration, vertical integration, real integration, and virtual integration (see table 2). Appendix A provides additional terms related to the concept of health services integration.

Table 2. Concepts of horizontal, vertical, real and virtual integration

Concept	Definition	Observations
Horizontal integration *	Refers to the coordination of activities across operating units that are at the same stage in the process of delivering services.	Examples of this type of integration are consolidations, mergers, and shared services within a single level of care.
Vertical integration *	Refers to the coordination of services among operating units that are at different stages of the process of delivering services.	Examples of this type of integration are the linkages between hospitals and medical groups, outpatient surgery centers and home-based care agencies. There is forward vertical integration, which is toward the patient or user, and backward vertical integration, which is toward the supply side such as medical equipment and supply companies. Furthermore, there is the possibility of vertical integration with the health insurer.
Real integration **	Refers to integration through control and direct ownership of all of the parts of the system (unified ownership of assets).	
Virtual integration **	Refers to integration through relationships, not asset ownership, as a means for collaboration among system components.	Modality that uses contracts, agreements, strategic partnerships, affiliations or franchises, which “simulate” the benefits of asset ownership. This type of integration can coexist with asset ownership.

*SOURCES: * Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL (1993). Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6. ** Satinsky MA (1998). The Foundations of Integrated Care: Facing the Challenges of Change. American Hospital Publishing, Inc.*

Integrated Health Service Delivery Networks

Integrated Health Service Delivery Networks, or Organized Health Services Systems (*36*), or Clinically Integrated Systems (*37*), or Integrated Health Organizations (*38*), can be defined as:

> *"a network of organizations that provides, or makes arrangements to provide, equitable, comprehensive, integrated, and continuous health services to a defined population and is willing to be held accountable for its clinical and economic outcomes and the health status of the population served."*

SOURCE: Modified from Shortell SM; Anderson DA; Gillies, RR; Mitchell JB; Morgan KL. Building Integrated Systems:The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20–6.

There is currently a wide range of IHSDN models. The majority of existing systems can be classified into three general categories: i) systems that integrate only health workers; ii) systems that integrate health workers and health facilities; and iii) systems that integrate health workers, health facilities and health insurers (*39*). There can also be local networks (e.g., networks of municipal services), regional networks (e.g., networks of provincial services), and national service networks (e.g., national reference networks).

As follows from the above definition, IHSDNs do not require all of their member services to be under single ownership. On the contrary, some of their services can be provided through a variety of contractual arrangements or strategic alliances – through what has been called "virtual integration." This characteristic of IHSDNs makes it possible to explore options for complementary services between organizations with different legal status, whether public or private. The concept of IHSDNs also provides a suitable framework for collaboration between different countries through efforts such as complementing services along common borders and "shared services" across the small islands in the Caribbean (see box 1).

Box 1. "Shared Services" in Caribbean Countries

A special case of health services integration is that of "shared services," which relates to arrangements for the purchase of services, particularly at the third level of care, among some small Caribbean countries. From the historical standpoint, cooperation and integration efforts in this region have been present since the end of the nineteenth century and include the creation of the Caribbean Free Trade Association (CARIFTA) in 1968 and the Caribbean Community (CARICOM) in 1974. There are also agreements for the purchase of services among some countries in the region (e.g., Dominica purchases services from Martinique, Guadeloupe, Barbados and the USA). Several countries in the region such as Barbados and the Eastern Caribbean countries (Anguilla, Antigua and Barbuda, British Virgin Islands, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia, and St. Vincent) continue to be interested in expanding existing exchange agreements. Within this framework, arguments in favor of the implementation of shared services are usually made in the case of small populations (e.g., Montserrat has only 4,800 inhabitants), limited development of the health services infrastructure, budget constraints, geographic proximity, existence of good transportation links between the islands, and similar epidemiological and health profiles. In the past, related efforts have included services for surgery and anesthesia, medicine, obstetrics, gynecology, pediatrics, psychology and mental health, laboratory, radiology, and equipment maintenance. At present, unmet needs also include services for traumatology, neurosurgery, orthopedics, heart surgery, pediatric surgery, oncology, clinical laboratory, and pathology. Other areas of potential collaboration include chronic diseases, mental health, dialysis, rehabilitation, health worker training, and shared databases.

SOURCE: Potter, Irad. Plenary presentation "Shared Services in the Caribbean Countries." Sub-Regional Consultation on PAHO/WHO's Integrated Health Service Delivery Networks Initiative. PWR-ECC Office, Bridgetown, Barbados, October 23-24, 2008.

The Benefits of Integrated Health Service Delivery Networks

The research and evidence on health services integration remain limited, particularly in low- and middle-income countries (*40,41*). However, several studies do suggest that IHSDNs could improve the accessibility of the system; reduce the fragmentation of care; improve

overall system efficiency; prevent duplication of infrastructure and services; reduce production costs; and respond more effectively to people's needs and expectations (*42,43,44,45,46*). Reduced production costs would be obtained through improvements in the cost-effectiveness of services, decreases in unnecessary hospitalizations, reductions in the excessive utilization of services and diagnostic tests, reductions in the length of hospital stays, improvements in economies of scale and joint production, increases in production volumes, and increases in system productivity. Increases in production volumes, in turn, are associated with enhanced quality of care. Furthermore, IHSDNs would tend to improve the synergies between the system's resources and the population's health needs through an improved balance between specialists and generalists (*47*). In financial terms, integrated networks perform better in terms of total operating margins, cash flows and total net income (*48*).

From the clinical standpoint, continuity of care is associated with improvements in clinical effectiveness, responsiveness of health services, acceptability of services, and the efficiency of the health system (*49,50,51,52,53,54*). These findings are consistent with studies on the perceptions of service managers and providers, which suggest a positive relationship between the level of integration and the effectiveness of the system (*55*). From a user perspective, IHSDNs would facilitate timely access to services at the first level of care; improve access to other levels of care when required; prevent duplication/unnecessary repetition of history-taking, diagnostic procedures, and bureaucracy; improve shared decision-making processes between the provider and the patient and facilitate the implementation of self-care strategies and chronic disease monitoring (*56*). Independent of previous findings, there is consensus among researchers regarding the need to conduct more studies in order to demonstrate the causal link between health services integration and its impact at the clinical level, the population health level, and on user satisfaction (*57*).

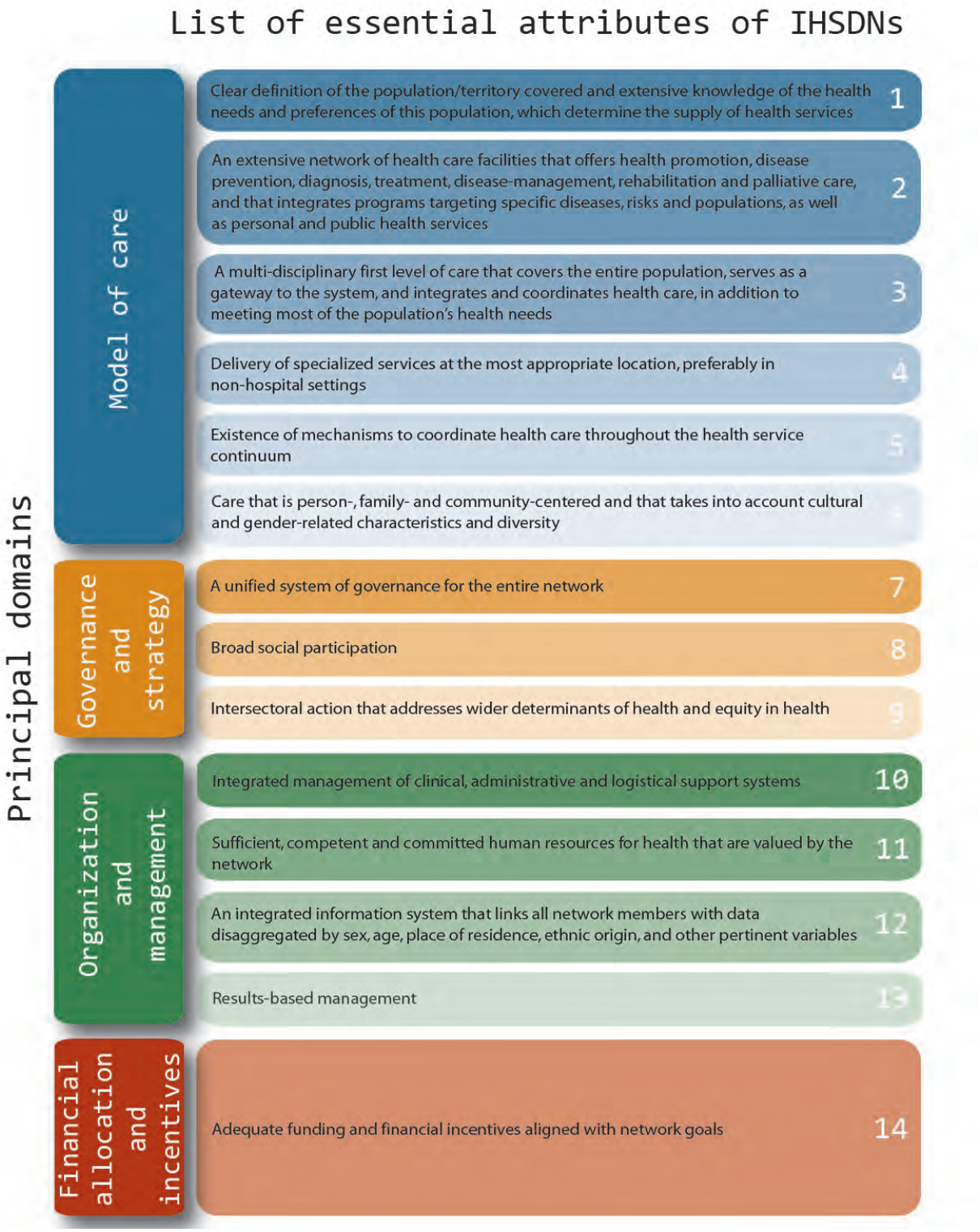
A clear example of positive results from integrated health services systems is Kaiser Permanente (KP). In January 2002, the British Medical Journal published a comparison of KP in California and the National Health Service (NHS) in Britain. Among the surprising results of the study, the comparison demonstrated the following: i) members of KP had more convenient, complete services at the first level of care and faster access to specialized services and hospital admissions than the British NHS; ii) rates of age-adjusted acute hospitalizations at KP were one-third of those at the NHS for conditions such as chronic obstructive pulmonary disease, hip surgery and cardiovascular accidents, and the overall performance of the system was better; and iii) KP achieved these results through more efficient use of hospitals, integration of its health services, and optimal utilization of information systems (*58*).

CHAPTER 3: ESSENTIAL ATTRIBUTES OF INTEGRATED HEALTH SERVICE DELIVERY NETWORKS

Given the wide range of health system contexts, it is not possible to prescribe a single organizational model for IHSDNs; in fact there are multiple possible models. The public policy objective is to achieve a design that meets each system's specific organizational needs (*59*). The national health authority plays a key role in implementing this policy and reorienting health systems based on the values and principles of PHC (*60*). To achieve this, the health authority can perform the following functions: a) sectoral steering (e.g., policymaking and evaluation of system performance); b) regulation; c) modulation of financing; d) monitoring of insurance; e) performance of the Essential Public Health Functions (EPHF); and f) harmonization of health services delivery (*61*).

Despite the diversity of contexts pointed out previously, the experience accumulated in recent years indicates that IHSDNs require the following essential attributes for proper performance. The attributes of IHSDNs presented below, grouped according to four principal domains (*62*), are the result of an extensive literature review and several consultations carried out as part of this Initiative.

Graph 2. List of essential attributes of IHSDNs according to principal domain



SOURCE: Own elaboration.

Essential attributes of Integrated Health Service Delivery Networks

CLEAR DEFINITION OF THE POPULATION/TERRITORY COVERED AND EXTENSIVE KNOWLEDGE OF THE HEALTH NEEDS AND PREFERENCES OF THIS POPULATION, WHICH DETERMINE THE SUPPLY OF HEALTH SERVICES

The principal function of IHSDNs is to provide equitable, comprehensive, integrated, and continuous health services to the population, in order to promote, preserve and/or restore the health of individuals and the community as a whole. To achieve this objective, IHSDNs should be capable of clearly identifying the populations and geographic areas for which they are responsible. IHSDNs that are organized on the basis of defined geographic areas have a comparative advantage over systems that are not organized on a territorial basis, particularly with respect to the possibility of implementing public health activities (*63*), promoting intersectoral action, and intervening on the social determinants of health. Knowledge of the population and territory covered allows for the preparation of profiles on the health status of the population, in particular of the most vulnerable groups and their environment. For data collection, IHSDNs coordinate information-gathering efforts with the community and other relevant public and private entities. The goal is to provide a baseline database on the community that can be updated, thus facilitating current and future health services planning. It also entails the capacity to make projections regarding the needs, demands and future supply of health services, including the number, composition and distribution of health workers; physical resources, and the health programs necessary to meet the health needs of the population covered.

AN EXTENSIVE NETWORK OF HEALTH CARE FACILITIES THAT OFFERS HEALTH PROMOTION, DISEASE PREVENTION, DIAGNOSIS, TREATMENT, DISEASE-MANAGEMENT, REHABILITATION AND PALLIATIVE CARE, AND THAT INTEGRATES PROGRAMS TARGETING SPECIFIC DISEASES, RISKS AND POPULATIONS, AS WELL AS PERSONAL AND PUBLIC HEALTH SERVICES

To ensure delivery of comprehensive, integrated, and continuous health services, IHSDNs have a broad range of health facilities that include first level outpatient centers, nursing centers, hospices, home-based care, specialized outpatient clinics, rehabilitation centers and hospitals. IHSDNs provide all levels of care, elective and emergency services, and acute, long-term and palliative care. Given that their primary focus is to keep the population healthy, IHSDNs emphasize the delivery of public health and health promotion services. IHSDNs aim to ensure equitable distribution of their operating units and geographic proximity to the population served. IHSDNs also focus on serving optimal population sizes in order to facilitate

access to the services provided; to guarantee quality standards in specialized services whose quality depends on the volume of services delivered (e.g., heart surgeries or transplants), and to maximize economies of scale in network operation. Finally, IHSDNs are concerned about integrating programs targeting specific diseases, risks and populations;[2] personal health services;[3] and public health services.[4] In situations where health service managers do not have access to all levels of care or all of the necessary services, integration can be achieved through virtual integration with different types of providers.

A MULTI-DISCIPLINARY FIRST LEVEL OF CARE THAT COVERS THE ENTIRE POPULATION, SERVES AS A GATEWAY TO THE SYSTEM, AND INTEGRATES AND COORDINATES HEALTH CARE, IN ADDITION TO MEETING MOST OF THE POPULATION'S HEALTH NEEDS

The first level of care plays a key role in the functioning of the network as a whole. The first level of care serves as a gateway to the system and guarantees equitable access to essential services for the entire population. This level provides comprehensive, integrated, and continuous care capable of meeting the majority of the population's health care needs and demands over time and throughout the life course. It is the network component that develops the closest ties with individuals, families and the community, and with other social sectors, thus facilitating social participation and intersectoral action. The first level of care also plays a very important role in coordinating the continuum of services and the flow of information throughout the entire network of services, regardless of where care is delivered. It is also the most critical level for achieving the operational integration of programs targeted at specific diseases, risks and populations, and personal and public health services. In IHSDNs, the first level is not limited to the delivery of health services at health centers. Multi-disciplinary health workers can move throughout the entire service network and provide care at different settings such as homes, schools, workplaces and the community in general. In the same way, specialists from different disciplines can provide health services at this level of care.

2 Also known as vertical programs.

3 **Personal health services** refer to health services targeted at the individual, including promotion, prevention, diagnosis, early treatment, disease-management, rehabilitation, palliative care, acute care and long-term care, among others. (OPS/OMS. Análisis del sector salud, una herramienta para viablizar la formulación de políticas, lineamientos metodológicos. Edición especial No. 9. Washington, D.C., Febrero, 2006).

4 **Public health services** refer to health services targeted at the population, including health situation analysis, health surveillance, health promotion, prevention services, control of transmissible diseases, environmental protection and health, disaster prevention and response, and occupational health, among others. (PAHO. Public Health in the Americas: Conceptual Renewal, Performance Assessment and Bases for Action. Scientific and Technical Publication No. 589. Washington, D.C., 2002).

Box 2. Strengthening the first level of care organized on a territorial basis

The case of the Municipality of Curitiba, Brazil

Curitiba is the capital of the state of Paraná, located in the southern region of Brazil. The city has 1.8 million inhabitants and its annual growth rate is 2.1%. The health infrastructure includes 96 basic health units, 48 of which are operated by family health teams; 1,140 community health workers (CHW) and 2,947 professionals linked to the basic health units; eight municipal medical emergency centers; eight specialized outpatient units; one facility for laboratory analysis; and 24 contracted hospitals. The territorial organization of the health care network is based on: the household, which corresponds to each family's residential unit; the micro-area, the CHW's sphere of action, which covers an average of 100 families; the area of responsibility, which is the sphere of responsibility for each basic health unit, each of which should achieve self-sufficiency at the first level of care; the health district, an area of approximately 200,000 to 300,000 people, which must offer secondary care; and the municipality, where self-sufficient tertiary care should be provided. The municipality is divided into nine health districts, each of which has a district authority that coordinates all of the first level of care units within its territory. In 1995 implementation of the Family Health Program (PSF in Portuguese) began. The PSF is based on the following principles: an expanded vision of the community, comprehensive, integrated, continuous and humanized care, an intersectoral approach, the family as the basic nucleus of the approach to care for the population, and clinical competence. With the support of the University of Toronto, instruments related to this family-based approach – such as the genogram and the life course – were incorporated into the PSF's practices. In 2000, the health district of "Bairro Novo" became the first family health district coordinated by a network, which included PSF teams, a 24-hour outpatient emergency care unit, an outpatient specialized medical care center, and a maternal-child care hospital. As a complement to the foregoing, the Municipal Health Secretariat strengthened home-based care procedures and developed 24-hour emergency care units. In 1993, the Municipal Health Secretariat had instituted the User Care Center with the goal of channeling grievances and complaints, providing information/counseling, and receiving suggestions for improving services. In 2004, a regular user satisfaction survey was introduced, which is carried out by phone twice a year. Survey results are used in provider evaluations for the payment of performance-based incentives.

SOURCE: Vilaça Mendes E. Redes de atenção à saúde no sistema único de saúde do Brasil: estudo de caso apresentado à OPS. June, 2007.

DELIVERY OF SPECIALIZED SERVICES AT THE MOST APPROPRIATE LOCATION, PREFERABLY IN NON-HOSPITAL SETTINGS

The development of IHSDNs will require constant adjustments in the supply of health services due to continual changes in the population's health needs, the levels of sector resources and advances in health-related scientific and technological knowledge. Appropriate care refers to: the provision of care that meets the health needs of the entire population; care that is effective and based on the best available scientific evidence; interventions that are safe and that do not cause any harm or suffering; and priorities for the allocation and organization of resources that are based on equity and economic efficiency (e.g., cost-effectiveness). In this context, it is preferable to provide specialized services in non-hospital settings. As a result, IHSDNs are promoting the reengineering of hospitals through, on one hand, adoption of outpatient surgery and day hospital schemes, development of home-based care and creation of specialized outpatient centers, hospices and nursing homes, while on the other hand, focusing hospital care on the management of patients who require acute intensive care.

EXISTENCE OF MECHANISMS TO COORDINATE HEALTH CARE THROUGHOUT THE HEALTH SERVICE CONTINUUM

One of the most significant challenges facing IHSDNs is the management of multiple complex chronic diseases that "cross" the continuum of services and require different treatment and rehabilitation sites. In this regard, there is no ideal combination of coordination mechanisms. Instead, these depend on each unique situation and, specifically, on the degree of uncertainty, specialization and interdependence of the tasks. In general, situations that require greater coordination of care are seen in complex health problems with a high degree of uncertainty and interdependence, and as a result require co-delivery service models. The coordination instruments or mechanisms traditionally used by health organizations are based on the standardization of processes/results and mutual adaptation. Clinical practice guidelines and treatment protocols are examples of coordination instruments based on the standardization of processes. Such mechanisms can be used effectively when the interdependence between professionals does not need to be strong, the variability of the response to medical treatments across patients is minimal and the programming of care is easy. On the other hand, mutual adaptation – that is, the coordination of tasks through organic coordination mechanisms that facilitate communication between professionals that intervene in the same care process – is more effective for coordinating care for complex health problems with a high degree of uncertainty and interdependence. Examples of this type of coordination are interdisciplinary working groups, matrix-based organizational designs, and case management (*64*).

Box 3. Development of mechanisms for coordinating care

The case of the Badalona Serveis Assistencials S.A. Integrated Network, Catalonia, Spain

Badalona Serveis Assistencials (BSA) is currently a corporation based on entirely municipal ownership that was incorporated in the early nineties through the merger of a hospital management entity (Municipal Hospital of Badalona S.A.), an organization that managed first level of care centers (Badalona Gestió Assistencial SL) and a municipal social-health center (Centers El Carme S.A.). BSA offers health coverage to 230,000 inhabitants in the region of Barcelonés Norte, an urban center close to Barcelona, through one 121-bed acute-care hospital, seven basic health areas (that provide first level of care through eight centers), a 210-bed social-health center, and comprehensive home-based health care services. The population assignment is geographic (e.g., in Catalonia, the public buyer – CatSalut – finances universal access for the entire Catalan population). In the same territory, they receive support from a 640-bed high-complexity hospital (a reference hospital for the entire northern territory of the province of Barcelona, which has 800,000 people) and four other first level of care centers, all of which are managed by another public entity (Catalan Institute of Health). Its organization is based on a service network that provides coordinated care through a continuum of services carried out by about 1,200 employees. It is defined as a network with real integration that provides the full range of services: it covers first level care (FLC), specialized care (SC), social-health services (SHS), home-based health care (HBHC) and social assistance which makes it an established co-delivery model (mutual responsibility between professionals at different levels). BSA uses several coordination instruments and strategies, including: the standardization of processes through common clinical practice guidelines, established referral and counter-referral criteria and circuits across all levels and for all specialties, implementation of shared sessions between FLC and SC, and SC visits in FLC centers. They also have mechanisms for mutual adaptation through e-mail (with personal identification for all professionals) and an integration manager. Yet, undoubtedly, the greatest facilitator of the organization's continuity of care is its vertical information system. BSA has had an Intranet for the past 10 years, which aggregates clinical and administrative data through a shared clinical history, by consolidating the electronic clinical records from FLC, SC, SHS and HBHC. The Intranet also makes this information accessible from all points

in the network as well as from patients' homes and includes a shared radiodiagnostic service with digital imaging and laboratory results. The corporate Intranet is also an instrument that supports decision-making (through the availability of protocols and clinical guidelines), knowledge management (through knowledge sharing), and translation of strategic objectives into an adequate patient flow (information on referral circuits that are closest to the patient's residence). The availability of all clinical and administrative data in the information system allows for the preparation of balanced scorecards with information updated daily available to all professionals. All services have information on care activities, resource use, economic and human resource information, or qualitative information (clinical excellence indicators) in real time.

SOURCE: Cunillera R. Caso de Red Integrada, Badalona Serveis Assistencials S.A. (BSA), Badalona. Catalonia. Spain. Barcelona, 20 October 2008.

CARE THAT IS PERSON-, FAMILY- AND COMMUNITY-CENTERED AND THAT TAKES INTO ACCOUNT CULTURAL AND GENDER-RELATED CHARACTERISTICS AND DIVERSITY

IHSDNs are characterized by health care delivery centered on the person, the family, and the community or territory. Care centered on the person means that it focuses on the "whole person"; that is, care that considers the physical, mental, emotional and social dimensions of the person during the entire life course. It also means that health services adopt both intercultural and gender-based approaches to health care. This implies that health workers should have a certain level of knowledge about the person, that care should be adapted to the specific needs of the person, that there should be empathy, respect and trust, and that the patient and provider should make clinical decisions together (*65*). It means empowering people to better manage their health through strategies such as health education, self-care and self-management of diseases. Care centered on the person is also linked to a health care approach based on a person's or patient's rights (and at times responsibilities), which has been integrated in some countries through the so-called "Patient Bill of Rights." Furthermore, the family and community approach means that care addresses the patient's problems in the context of the person's family circumstances, social and cultural networks, and the circumstances in which the person lives and works. Finally, it also means that families and communities are themselves both recipients and at times providers of health services (e.g., home-based care), respecting the diversity that may exist within the community including gender, culture, ethnicity and other types.

A UNIFIED SYSTEM OF GOVERNANCE FOR THE ENTIRE NETWORK

The dimensions of governance are control, structure, composition and operations. Control refers to the degree of governance centralization, which can range from a single governing body (corporate governance) to multiple decentralized bodies that have different roles and responsibilities. Board members determine the composition of the governing body, which may include representatives from the communities and operating units that are part of the network. The complexity of IHSDN governance will require the presence of highly dedicated members with specific training. Responsibilities in governance include formulating the organization's purpose, including the mission, vision and strategic objectives of the network; coordinating the different governance entities that comprise the network; ensuring that the vision, mission, objectives and strategies are consistent throughout the entire network; ensuring that the network achieves optimal performance by monitoring and evaluating network results and processes; standardizing the network's clinical and administrative functions; ensuring adequate funding for the network; and taking responsibility for the effectiveness of its own performance as a governing body (*66*). Finally, in countries that are heavily dependent on external financing (e.g., financial institutions and/or external donors), the governance function should also include the capacity to manage and align international cooperation, seeking the development of IHSDNs as the preferred alternative for the organization, management and delivery of health services, as well as the integration of programs targeting specific diseases, risks and populations into the health system.

BROAD SOCIAL PARTICIPATION

IHSDNs develop communities' capacities to become active partners in the governance and performance evaluation of the network. Social participation can be expressed in different ways, which successively correspond to: i) information sharing - providing people with balanced information that helps them understand the problems, options, opportunities and/or solutions; ii) consultation - obtaining feedback from affected communities with regard to the analysis, options and/or decisions; iii) involvement - working directly with communities through a process that ensures that the public's concerns and aspirations are consistently understood and taken into account; iv) collaboration - partnering with affected communities in every aspect of decision-making, including the development of options and identification of the preferred solution; and, finally, v) empowerment - ensuring that communities have complete control over key decisions affecting their well-being (*67*).

INTERSECTORAL ACTION THAT ADDRESSES WIDER DETERMINANTS OF HEALTH AND EQUITY IN HEALTH

IHSDNs should create links with other sectors to address wider determinants of health and equity in health. Intersectoral action can include collaboration with the public sector, private sector and civil society organizations such as community, non-governmental and faith-based organizations. It can also include collaboration with the education, labor, housing, food, environment, water and sanitation, and social protection sectors, among others. There are several levels of integration within intersectoral actions that range from simple information sharing to prevent conflicting programs across different sectors, to coordination, and finally, to the adoption of healthy public policies to achieve greater harmonization and synergy among the different sectors of the economy. Successful intersectoral collaboration requires increased levels of technical competence, management skills and shared values across the sectors involved. Coordination with other services can occur through participation in advisory committees, standing committees and intersectoral working groups, among others.

INTEGRATED MANAGEMENT OF CLINICAL, ADMINISTRATIVE AND LOGISTICAL SUPPORT SYSTEMS

The management of the network depends on the size of the network (population and geographic area covered, workforce, etc.) and the level of complexity (type of health facilities, existence of national or regional reference centers, existence of teaching or research functions, etc.). Larger, highly complex IHSDNs require more refined organizational designs that facilitate delegation of decision-making and organizational coordination. Management changes include the transfer of management from self-contained individual departments to multi-disciplinary teams responsible for managing specific services throughout the continuum of care, facilitating the creation of matrix-based organizational structures and clinical service lines (*68*). IHSDNs also develop systems for guaranteeing and continuously improving quality of care with the objective of promoting a culture of clinical excellence throughout the entire network. Furthermore, IHSDNs aim to centralize and integrate clinical support functions (e.g., clinical laboratory and radiology services) and the purchase, storage and delivery of drugs and medical supplies to promote overall network efficiency, while simultaneously establishing mechanisms for the management and assessment of medical technology in order to rationalize its use. Finally, IHSDNs seek to share logistical support systems such as medical transportation and centralized medical appointment systems.

SUFFICIENT, COMPETENT AND COMMITTED HUMAN RESOURCES FOR HEALTH THAT ARE VALUED BY THE NETWORK

Human resources are the IHSDN's most important asset. Their quantity, distribution and competencies translate directly into the availability of appropriate services to cover the needs of the population and the territory. Therefore, defining the composition of basic health teams vis-à-vis the geographical area covered is essential and serves as the foundation for the planning and allocation of the network's human resources. From the standpoint of personnel management, IHSDNs examine the role of health personnel from the perspective of both public health and clinical responses, as well as organizational structure and management. IHSDNs require a set of skills and lines of responsibility that differ from those required by traditional health services. They require new positions (e.g., directors of clinical integration, network planning and development), in addition to new competencies (e.g., systems thinking, negotiation and/or conflict resolution, teamwork, continuous quality improvement, and network management). In IHSDNs, the mix of competencies can be obtained by employing different types of professionals to work on a single task (multi-disciplinary teams) or by assigning multiple tasks to a specific individual (multi-purpose worker). IHSDNs require the preparation of an organizational development plan to achieve the desired transformations and a plan for systematic continuing education processes in order to adjust the competencies of the work teams. In a broader sense, IHSDNs require national policies for the training and management of human resources that are compatible with network needs. Finally, the organizational culture is another basic factor that influences the coordination within the organization. It contributes to the coordination of care to the extent that it fosters cohesion and identification among the staff working in the organization, especially if it promotes values and attitudes of collaboration, teamwork and a results-based approach.

AN INTEGRATED INFORMATION SYSTEM THAT LINKS ALL NETWORK MEMBERS WITH DATA DISAGGREGATED BY SEX, AGE, PLACE OF RESIDENCE, ETHNIC ORIGIN, AND OTHER PERTINENT VARIABLES

The IHSDN information system must provide a wide range of data to meet the information needs of all network members. All operating units affiliated with the network must be linked to the information system, even when each operating unit uses different parts of the system database. The information system should be consistent with the network's mission and strategic plan and should provide information on the health status of the population served (including information on determinants of health), the demand for and utilization of services, operational information about the patient's trajectory regardless of the setting of care (admission, discharge, referral), clinical information, information on user satisfaction, and financial information (billing,

type of affiliation, costs, etc.). Furthermore, some of the basic elements that the information system should have include a system to integrate the applications that link the different systems within the network, a standardized, unique identifier for each person/patient, a set of universal definitions of terms and standards, and a database that is accessible to all network members and which preserves the confidentiality of the information (*69*).

Box 4. The importance of integrated information systems

The case of Kaiser Permanente, U.S.A.

Kaiser Permanente (KP) is the largest nonprofit, nongovernmental integrated health care delivery system in the United States of America. It operates in nine states and the District of Columbia and has 8.7 million members, 14,000 physicians, and 160,000 employees. It owns and runs 421 medical office buildings (for ambulatory care only) and 32 medical centers (hospitals with ambulatory care). In California, the medical centers offer "one-stop shopping" for the majority of services: hospital, outpatient care, pharmacy, radiology, laboratory, surgery and other procedures, and health education centers. This co-location is a straightforward mechanism for integration that encourages patient compliance and increases opportunities for physicians at the first level of care to communicate and consult with specialists, hospital personnel, pharmacists, etc. KP is not an actual legal entity but is rather an umbrella name for three entities that operate in an integrated manner: the Kaiser Foundation Health Plan (KFHP), the Permanente Medical Groups (PMG) and the Kaiser Foundation Hospitals (KFH). Mutual exclusivity is a key feature underpinning these relationships. This means that the Permanente Medical Groups do not practice medicine outside of KP. In the same way, KFHP does not contract directly with other medical groups. Contracting for needed medical services is done by the medical groups. KFHP and PMG share incentives to keep members healthy and control the costs of care. Since 2003, KP has embarked on a process to become the world leader in information technology by fully integrating its systems and giving members access to online information. As part of this, KP has implemented KP HealthConnect, a secure nationwide electronic data system that links all aspects of care. For providers, the system: i) becomes the communication and messaging tool among those who care for

patients, ordering tests or medications, and receiving results; ii) incorporates decision-support tools, such as clinical practice guidelines, drug recommendations and alerts for overdue tests or preventive screening; iii) offers population management tools such as registries for people with diabetes, asthma, and heart disease; and iv) provides sophisticated information for research and performance evaluation, including feedback to individual practitioners and teams. Moreover, KP HealthConnect offers members and patients: i) online access to their medical records and test results, health education information, appointments, prescription refills, and even eligibility and benefit information; ii) the opportunity to send e-mails to their physicians; and iii) online health assessments and personalized information on their health status.

SOURCE: Porter M, Kellogg M. Kaiser Permanente: An Integrated Health Care Experience. Revista de Innovación Sanitaria y Atención Integrada 2008, Vol. 1, N. 1.www.risai.org.

RESULTS-BASED MANAGEMENT

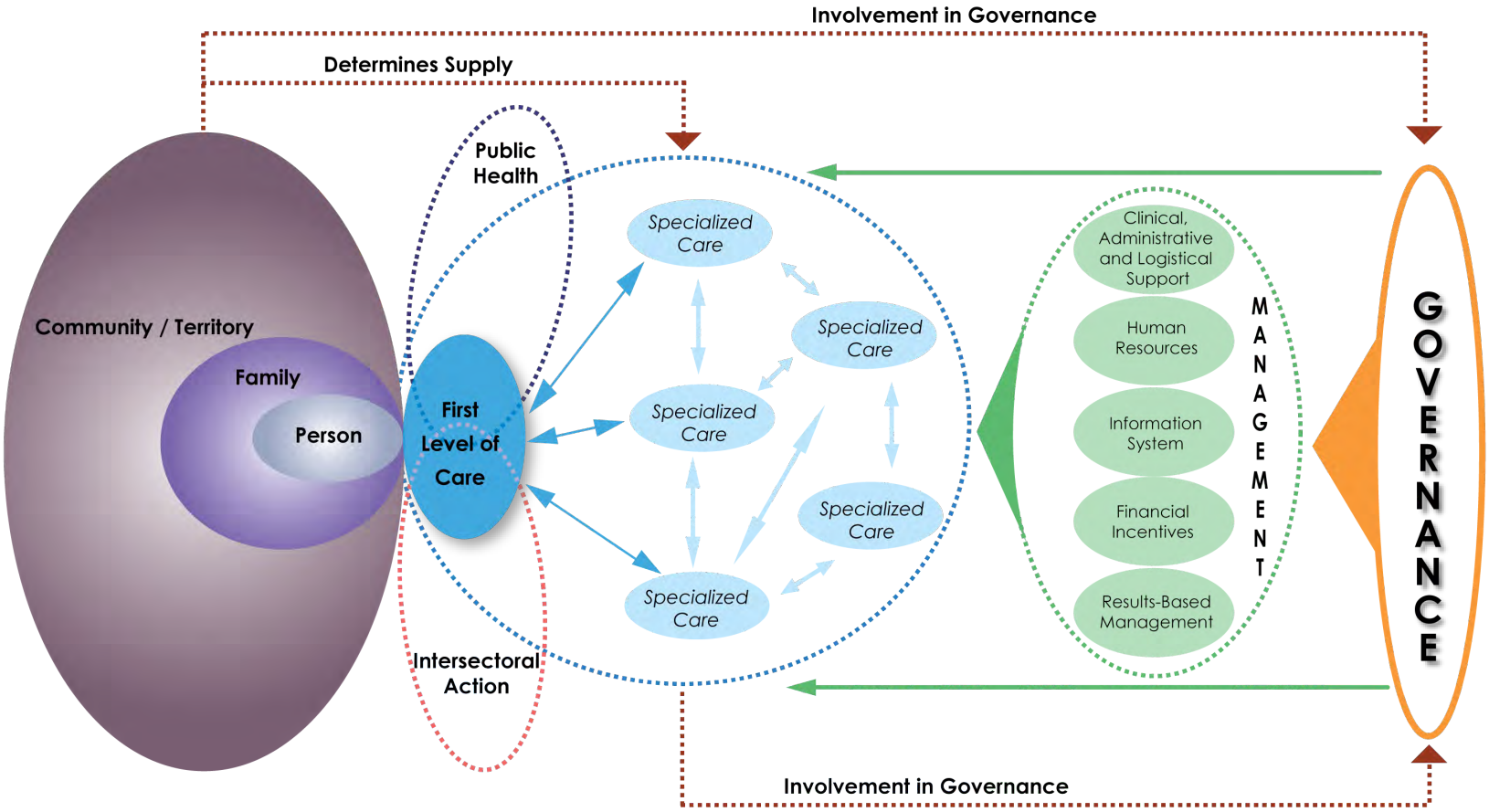
Results-Based Management (RBM) is a strategy or approach through which an organization ensures that its processes, products and services contribute to the achievement of clearly-defined results. RBM provides a coherent framework for strategic planning and management through improved opportunities for learning and accountability for all of the actors who are part of the integrated network such as health providers, managers, insurers, and policymakers. RBM also relates to a broad management strategy that aims to achieve significant changes in the way institutions operate, with improvements in performance and achievement of results as central goals. After defining realistic expected results, institutions can subsequently monitor and evaluate progress toward the achievement of these expected results while integrating lessons learned into management decisions and reporting on their performance (*70*). Monitoring and evaluation of IHSDN performance present significant technical challenges, such as the need for a systemic evaluation approach, methodological difficulties inherent in the systemic approach, and limited data availability and comparability. Finally, it is important for IHSDNs to carry out operations research for various purposes, such as improving health situation analysis or contributing to the evaluation of network performance and results. In order to carry out the foregoing, IHSDNs can develop their own capacities and/or contract services with specialized research institutions.

ADEQUATE FUNDING AND FINANCIAL INCENTIVES ALIGNED WITH NETWORK GOALS

IHSDNs should set up an incentives and accountability system to promote the integration of the network as a whole, the treatment of health problems at the most appropriate setting in the continuum of care, and the promotion and preservation of the health of both people and the environment. To this end, the resource allocation system should permit each operating unit—hospitals, first level of care teams, etc. — to take responsibility for both their direct costs and the costs generated to the rest of the network. Integration and preparation of the budget based on the overall objectives, flexible mobility of economic and human resources within the network, and the transfer of purchasing capacity to the operating units are some of the most effective measures to achieve overall network efficiency. Traditional payment systems that are applied independently for each facility and level of care (e.g., fee for procedure, fee for service or global budget) discourage coordination between levels of care (*71*). In response to these issues, IHSDNs have been introducing resource allocation mechanisms and financial incentives that aim to promote coordination among service providers and treatment of health problems at the most appropriate setting within the continuum of care. One example is risk-adjusted per capita payments (*72*).

Below is a schematic figure that presents the relationships between the essential attributes of IHSDNs.

Figure 3. Graphic representation of the essential attributes of IHSDNs



Context: type of health system, funding level, legal and regulatory framework, health authority's steering capacity, availability of human, physical and technological resources, etc.

SOURCE: Own elaboration.

Evaluating progress toward Integrated Health Service Delivery Networks: from absolute fragmentation to integrated networks

The integration of health services should be seen as an evolving and continuous process over time. Each health service reality presents its own problems of integration in light of the attributes described above. Similarly, as discussed in Chapter 1, the causes of health services fragmentation are many and vary from one reality to another.

Below is a proposed progression over time, from a hypothetical situation of absolute fragmentation of services to a hypothetical situation of complete integration, based on the previously described attributes. As can be seen, in reality no system fully corresponds to a certain type of network (I, II or III). What is most probable is that each country's service network can fall within different levels of integration according to the progress of each specific attribute. It is also possible for different attributes at different stages of development to coexist in a single network. The progression table is useful for identifying the attributes that require higher intervention priority, in the context of the overall attributes of IHSDNs (see table 3).

Table 3. Evaluating progress toward Integrated Health Service Delivery Networks: from absolute fragmentation to integrated networks

Domain	Essential attribute	Level of progress in the attributes that make up the Integrated Health Service Delivery Network		
		I Fragmented network	II Partially integrated network	III Integrated network
Model of care	1. Population and territory	No definition of population/ territory under its responsibility	Defined population/ territory under its responsibility, but with limited knowledge of the health needs of this population	Defined population/ territory under its responsibility and extensive knowledge of the health needs of this population, which determine the supply of health services
	2. Service delivery	Nonexistent, very limited or restricted to the first level of care	Includes all or most levels of care, but with high predominance of personal health services	An extensive network of health care facilities that includes all levels of care and provides and integrates both personal and public health services
	3. First level of care	Predominance of vertical programs with no integration or coordination	Acts as a gateway to the system but with very low capacity to resolve health problems and poor integration of services	Acts as a gateway to the system, integrates and coordinates care, and meets the majority of the population's health needs
	4. Specialized care	Deregulated access to specialists	Regulated access to specialized care, but predominance of hospitals	Delivery of specialized services is done preferably in non-hospital settings
	5. Coordination of care	No coordination of care	Existence of coordination mechanisms, but that do not cover the entire continuum of care	Existence of coordination mechanisms throughout the entire continuum of care
	6. Focus of care	Centered on disease	Centered on the person	Centered on the person, the family and the community/ territory

continued

Table 3. (continued)

Domain	Essential attribute	Level of progress in the attributes that make up the Integrated Health Service Delivery Network		
		I Fragmented network	II Partially integrated network	III Integrated network
Governance and strategy	7. Governance	No clear governance function	Multiple instances of governance that function independently of each other	A unified system of governance for the entire network
	8. Participation	No instances for social participation	Instances for participation are limited	Broad social participation
	9. Intersectoral approach	No links with other sectors	Links with other social sectors	Intersectoral action beyond the social sectors
Organization and management	10. Management of support systems	Non-integrated management of support systems	Integrated management of clinical support but without integration of the administrative and logistical support systems	Integrated management of the clinical, administrative and logistical support systems
	11. Human resources	Insufficient for the needs of the network	Sufficient, but with deficiencies in the technical competencies and commitment to the network	Sufficient, competent, committed and valued by the network
	12. Information systems	No information system	Multiple systems with no communication among them	Integrated information system that links all network members with data disaggregated according to pertinent variables
	13. Performance and results	No measurement of performance and results	Measurement of performance centered on inputs and processes	Measurement of performance centered on health outcomes and user satisfaction
Financial allocation and incentives	14. Funding	Insufficient and irregular	Adequate financing but with unaligned financial incentives	Adequate funding and financial incentives aligned with network goals

SOURCE: Own elaboration.

CHAPTER 4: PUBLIC POLICY INSTRUMENTS AND INSTITUTIONAL MECHANISMS FOR THE CREATION OF INTEGRATED HEALTH SERVICE DELIVERY NETWORKS

Public policy instruments and institutional mechanisms for the creation of Integrated Health Service Delivery Networks

Policymakers, health service managers and providers have a series of public policy instruments and institutional mechanisms that can assist them in creating IHSDNs. The relevance of these instruments and mechanisms will depend on the political, technical, economic and social viability of each situation, an issue that will be discussed in the next section of this chapter. Regardless of the instruments or mechanisms used, they should always be backed by a State policy that promotes IHSDNs as an essential strategy for achieving more accessible, comprehensive, integrated, and continuous health services. In turn, this policy framework should be underpinned by a coherent legal framework consistent with the development of IHSDNs, operations research, and the best available scientific knowledge.

Appendix C presents a list of public policy instruments and institutional mechanisms that can be used to implement IHSDNs. This list has been drafted on the basis of a literature review, expert opinion and recommendations from the technical consultations. The goal of this document is not to fully develop each integration instrument or mechanism, but instead to present a broad range of possibilities that could help to identify options that will have to be developed later on. The evidence to back the proposed options varies. Their inclusion in the list should be seen in terms of possibilities, and not necessarily in terms of evidence-based recommendations.

For the purposes of this document, the aforementioned instruments and mechanisms have been grouped into two main categories: policy instruments and institutional mechanisms. The first group is targeted at policymakers, either at the national, regional, or local level (depending on the degree of decentralization of the system). The second group is targeted at health service managers and providers. This categorization is artificial and its sole purpose is to facilitate the presentation of the options in the text. In reality, the division between policymakers and service managers/providers is not as marked, particularly in situations where there is no separation of system functions. This means that the options for policy instruments and institutional mechanisms can be used together by various public and private institutional actors.

PUBLIC POLICY INSTRUMENTS

Public policy instruments represent the ways and means (strategies and resources) that governments use to achieve their goals and objectives and include legal instruments, capacity building, taxes and fees, expenditures and subsidies, and advocacy and information. In order to present the options for public policy instruments in Appendix C, these have been grouped into two sub-groups: legal instruments and other policy instruments. Other policy instruments include all of the previous options that do not correspond to the legal category. Examples of application of some of these instruments for IHSDNs include: a) geographic designation of the population to be served; b) planning of services based on the needs of the population; c) definition of a comprehensive portfolio of health services; d) standardization of the model of care centered on the person, family and community; e) standardization of intercultural and gender-based approaches in services, including the use of traditional medicine; f) sensitivity to the diversity of the population; g) standardization of the system's gatekeeper; h) regulation of access to specialized care; i) clinical practice guidelines; j) human resource training and management policies consistent with IHSDNs; k) risk-adjusted per capita payment; l) integrated public policies across different sectors, and m) intersectoral collaboration to address determinants of health and equity in health.

INSTITUTIONAL MECHANISMS

Institutional mechanisms are those that can be implemented in health service management/provider institutions and can be grouped into clinical and non-clinical mechanisms (*73*). Clinical mechanisms are those related to health care itself and include, for example: a) multi-disciplinary teams; b) staff rotation across levels of care; c) a single clinical record (electronic); d) referral and counter-referral guidelines; e) case management; f) telemedicine; and, g) self-care

and home-based care duly supported and remunerated. Non-clinical mechanisms refer to those that support the clinical care process and include: a) a shared organizational mission and vision; b) shared strategic planning, resource allocation and performance evaluation; c) the definition of functions and responsibilities of each component of the network as part of the health service delivery continuum; d) the participation of health workers and users in governance; e) matrix-based organizational designs; f) centralized appointments centers; g) shared clinical and logistical support systems; h) a unique user identification (code); i) social services teams for intersectoral coordination; and j) strategies for purchasing services (or management agreements) that promote health service integration. As pointed out previously, the separation of clinical and non-clinical mechanisms is artificial and its sole purpose is to illustrate options in Appendix C.

The relevance of public policy instruments and institutional mechanisms for the different realities of the region's health systems

Although the challenge of health services fragmentation is common for the majority of countries in the region, its magnitude and primary causes vary for each context. Similarly, the policy options and strategies to overcome fragmentation will also depend on the technical feasibility and political, economic and social viability of each context. Each country/local reality should develop its own strategy for implementing IHSDNs, according to its economic resources, political circumstances, administrative capabilities and the historical development of its services. It is anticipated that the framework of essential attributes for IHSDNs and the proposed options of policy instruments and institutional mechanisms can support this process. However, analysis of the regional situation has identified certain frequent scenarios that will require, in one way or another, certain priorities in terms of the attributes that should be developed, as well as the type of instrument or mechanism that should be utilized. Some of these situations are presented below.

HIGHLY SEGMENTED HEALTH SYSTEMS

These systems are characterized by serious problems of duplication of services and resources, as well as high levels of inequity in access to services across their subsystems. Problems can emerge, for example, between the public sub-sector (Ministries of Health and Social Security) and the private sector, or between different financing/insurance schemes within the public sector, including public corporations, armed forces, professional bodies, etc. In this type of system, the inefficiencies of excessive segmentation of health financing/insurance can be partially

offset by different schemes to integrate service delivery, which can help to decrease the degree of duplication of services and infrastructure across subsystems, particularly in urban areas. Furthermore, schemes of this kind could be the first step in a process that could ultimately lead to the integration of health financing/insurance, gradually eliminating the segmentation of the system. Where political will to advance toward the virtual integration of services exists, these systems should focus on developing systems of shared governance, management, information, and coordination of care across the subsystems. At the corporate level, the different subsystems can establish virtual relationships through strategic partnerships, agreements or contracts between parties. In the operational sphere, integration schemes between different public subsystems can be constructed primarily through the development of clinical and non-clinical institutional mechanisms. In the case of integration between public and private subsystems, the tool of choice will be the use of contracts.

SYSTEMS WITHOUT UNIVERSAL COVERAGE AND ACCESS

In this type of system, the fundamental problem is the lack of access to health services, goods and opportunities for a specific segment of the population and the predominance of vertical programs for health services delivery. In this case, the integration priority is to define the population/territory coverage area, research their health needs and preferences, and develop a first level of care that provides comprehensive, integrated, and continuous services to the entire population. Mechanisms for referring users to specialized care when needed should also be developed. In terms of public policy instruments, a combination of legal and other policy instruments can be used to guarantee access to health services for the entire population. In cases where there are no private providers, the state should guarantee coverage for the entire population through the direct delivery of services. In cases where private providers (for-profit or non-profit) do exist, the possibility of purchasing services from the private sector can be explored. In this type of situation, intercultural models of care supported by community health workers will probably be required in order to adapt the services to the cultural preferences of the population served.

SYSTEMS WITH DECENTRALIZATION THAT FRAGMENTS SERVICE DELIVERY

In this type of system, the fundamental problem is the lack of coordination across the levels of care under the different decentralized administrative entities and the lack of economies of scale for the delivery of specialized services in decentralized systems with small beneficiary populations. In such systems, the priority is to improve coordination of care across the different levels. Since this type of situation normally occurs between systems in the public sphere,

special emphasis should be given to institutional mechanisms to coordinate the continuum of care and make use of clinical and non-clinical methods. In the case of lack of economies of scale, different local administrative entities (municipalities, districts, jurisdictions) can form associations through virtual integration schemes in order to improve economies of scale, particularly to optimize clinical support systems and the provision of drugs, supplies and medical equipment, among others.

SYSTEMS WITH SEPARATION OF FUNCTIONS AND MULTIPLE SERVICE PROVIDERS

In this type of system, the fundamental problem is the duplication of services and resources across providers. In this case, the health insurance/financing entity has multiple options for service providers, including their own providers who have higher levels of administrative autonomy. Providers compete with each other to deliver services and gain access to funding. The purchaser of services should evaluate the advantages and disadvantages of purchasing services from third parties or developing its own service delivery infrastructure. In these systems, the attribute of integrated system management and, more specifically, the purchasing function of the system should be developed. In addition, providers should aim to consolidate and merge the system's structures, especially if service purchasers modify the payment mechanism from a fee for services system to a per capita payment system. The preferred policy instruments for promoting service integration are those based on financial incentives.

CHAPTER 5: A "ROAD MAP" FOR DEVELOPING INTEGRATED HEALTH SERVICE DELIVERY NETWORKS IN THE REGION OF THE AMERICAS

Lessons learned

Past implementation of IHSDNs has yielded valuable lessons that are helpful in formulating a successful implementation strategy. Among the most important lessons, the following warrant mention: a) integration processes are difficult, complex and very long term; b) integration processes require extensive systemic changes and partial interventions are insufficient; c) integration processes require a commitment by health care workers, health service managers, and policymakers; and, d) the integration of services does not mean that everything has to be integrated into a single modality as multiple modalities and degrees of integration can coexist within a single system (*74,75,76,77*).

The development of IHSDNs is not easy given that the majority of systems cannot completely dismantle their structures and immediately replace them with new structures compatible with IHSDNs. As a result, restructuring efforts should start from existing structures (*78*). Nevertheless, existing organizational structures tend to create or perpetuate barriers to the development of IHSDNs. Many actors try to cling to old management and governance structures, which are rooted in institutional autonomy that emphasizes the management of individual departments, self-interest and the filling of hospital beds. Many system members may perceive integration efforts as corporate schemes to usurp the power of operating units instead of a way to improve care for individuals and the community. The implementation of IHSDNs will generate resistance to change, which can emerge at the individual and organizational levels. At the individual level, resistance is produced by changes in work habits, job security, economic factors (changes

in the income level), or simply fear of the unknown. At the organizational level, resistance is produced by structural inertia or threats to expertise, power relationships, or resource allocation.

On the other hand, the literature review and lessons learned from the country case studies commissioned by PAHO allow for the identification of a series of barriers and facilitators for the integration of health services, which are summarized in the following table:

Table 4. Barriers and facilitators to the development of IHSDNs

Barriers	Facilitators
1. Institutional segmentation and weakness of the health system, including weak steering role of the health authority 2. Sectoral reforms of the eighties and nineties (privatization of health insurance; health service portfolios that are differentiated across different insurers; competition among providers for resources; proliferation of contracting mechanisms; lack of job security for health workers; and regressive cost recovery schemes) 3. High-power groups with competing interests (specialists and super-specialists; insurers; drug industry, medical supply industry, etc.) 4. External financing modalities that encourage vertical programs 5. Deficiencies in the information, monitoring and evaluation systems 6. Weak management	1. High-level political commitment and backing for the development of IHSDNs 2. Availability of financial resources 3. Leadership of the health authority and service managers 4. Deconcentration and flexible local management 5. Financial and non-financial incentives aligned with the development of IHSDNs 6. Culture of collaboration and teamwork 7. Active participation of all interested parties 8. Results-based management

SOURCE: Montenegro H, Ramagem C. Presentation "Experiencias y lecciones aprendidas en la Región de las Américas: estudios de caso". Reunión regional de consulta: redes integradas de servicios de salud y programas verticales. Cusco, Peru, 11-12 November, 2009.

A "road map" for PAHO/WHO technical cooperation for developing Integrated Health Service Delivery Networks

The wide range of health systems' contexts makes it difficult to issue rigid, very specific regional recommendations for the creation of IHSDNs. Every country or local context should formulate its own strategy for implementing IHSDNs, according to its political circumstances, economic resources, administrative capacity, and lessons learned. Notwithstanding, the IHSDN Initiative needs a "road map" that, without failing to acknowledge countries' distinct realities,

makes it possible to select certain priority areas for action and outline a general timetable for implementation. With regard to PAHO's technical cooperation priorities, the country consultations yielded the following priorities: a) information systems (attribute 12), b) governance (attribute 7), c) management of support systems (attribute 10), d) financial allocation and incentives (attribute 14), e) first level of care (attribute 3), f) human resources (attribute 11), g) care coordination mechanisms (attribute 5) and h) focus of care (attribute 6). Incentives for operations research, ongoing evaluation of experiences and practices, and the dissemination of scientific knowledge about IHSDNs also represent fundamental components of technical cooperation.

With regard to the implementation timetable, the first phase of the Initiative (2009-2010) involves identification of the main problems related to health services fragmentation and preparation of national plans for the development of IHSDNs. The second phase (from 2011 onward) will involve implementation of the national plans and their ongoing evaluation. PAHO will give priority to countries that have programmed the creation of IHSDNs within their respective biennial work plans.

The IHSDN Initiative falls under Strategic Objective No. 10 of the PAHO Strategic Plan 2008-2012. More specifically, it supports the achievement of regional expected result 10.2, which states "*Member States supported through technical cooperation to strengthen organizational and managerial practices in health service institutions and networks, to improve performance and to achieve collaboration and synergy between public and private providers*." The regional progress of the Initiative will be evaluated through indicator 10.2.2 of the Strategic Plan, which is: "*Number of countries that have adopted PAHO/WHO policy recommendations to integrate health service networks, including public and non-public providers*." The baseline data for this indicator for 2007 was drawn from 3 countries and the goals for 2009, 2011, and 2013 correspond to 8, 10 and 13 countries, respectively (*79*). Progress at the country level will be evaluated through progress indicators established in each national plan, for each particular reality.

Finally, PAHO has garnered the support of other partners for the Initiative. These include the Brazilian Ministry of Health, the German Technical Cooperation Agency (GTZ), the Catalan Consortium of Health and Social Services (CSC), the Antioquia Hospitals Cooperative (COHAN), the United States Agency for International Development (USAID), and the Spanish Agency for International Development Cooperation (AECID) through the Spain-PAHO Fund. PAHO will strive to expand the number of partners in the future.

APPENDIX A

Glossary of Terms

Appropriate Care: Care that meets the health needs of the entire population; care that is effective and based on the best available scientific evidence; interventions that are safe and that do not cause any harm or suffering; and priorities for the allocation and organization of resources that are based on equity and economic efficiency (e.g., cost-effectiveness) (PAHO. Renewing Primary Health Care in the Americas: A Position Paper of the Pan American Health Organization/World Health Organization (PAHO/WHO). Washington, D.C., 2007).

Breadth of Integration: Number of different functions and services provided along the continuum of care (Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6).

Care Maps: Also known as clinical pathways and critical paths, care maps are management plans that display goals for patients and provide the corresponding ideal sequence and timing of staff actions to achieve those goals with optimal efficiency (Longest BB, Young GT. Coordination and Communication. In: Shortell SM, Kaluzny AD. Health Care Management: Organization Design and Behavior. New York: Delmar, 2006:237-75).

Case Management: Provision of continuous care across different services through the integration and coordination of needs and resources around the patient. Case management differs from disease management in that the former focuses on individual patients and their families while the later focuses on the population of patients with a certain disease. This type of management is targeted at people with a high level of risk requiring expensive care, people who are vulnerable, or have complex social and health needs. The case manager coordinates patient care throughout the entire continuum of care (Smith JE. Case Management: A Literature Review. Can J Nur. Adm. 1998; May-June: 93-109).

Clinical Integration: The extent to which patient care is coordinated across the system's different functions, activities and operating units. The degree of coordination of care depends primarily on the patient's condition and the decisions made by his or her health team. Clinical integration includes horizontal and vertical integration (Modified from Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6).

Clinical Practice Guidelines: Systematic recommendations, based on the best available scientific knowledge, to guide the decisions of both professionals and patients regarding the most appropriate, efficient health interventions for addressing a specific health-related problem given concrete circumstances (Grifell E, Carbonell JM, Infiesta F. Mejorando la gestión clínica: desarrollo e implantación de guías de práctica clínica. Barcelona: CHC Consultoria i Gestió, 2002).

Clinical Service Lines: Organizational arrangements based on outputs (versus inputs). Organizing around outputs creates a service line structure consisting of people, in different disciplines and professions, who have a common purpose of producing a comprehensive set of clinical services (Charns M, Tewksbury L. Collaborative Management in Health Care: Implementing the Integrative Organization. San Francisco: Jossey-Bass; 1993).

Comprehensive, Integrated, and Continuous Health Services: The management and delivery of health services such that people receive a continuum of health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care services, through the different levels and sites of care within the health system, and according to their needs throughout the life course (Modified from WHO. Integrated Health Services–What and Why? Technical Brief No. 1, May 2008).

Continuity of Care: The degree to which a series of discrete health care events is experienced by people as coherent and interconnected over time, and consistent with their health needs and preferences (Modified from Haggerty JL, Reid RJ, Freeman GK, Starfield B, Adair CE, McKendry R. Continuity of Care: A Multidisciplinary Review. BMJ 2003; 327(7425):1219–1221).

Depth of Integration: The number of different operating units within a system that provide a given function or service (Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993;36(2):20-6).

Disease Management: Coordinated systems of information and health interventions for populations that suffer from diseases that require self-care in their treatment and control. They focus on patients with specific diagnoses; they target diseases that are highly prevalent, that require intensive or high-cost care, or that represent high drug costs; and they focus on interventions whose results can be measured and for which significant variations in clinical practice have been described (Modified from Pilnick A, Dingwall R, Starkey K. Disease Management: Definitions, Difficulties and Future Directions. Bull World Health Organ 2001; 79(8):755-63).

Economies of Joint Production: The production of more than one product by a single firm, given that sharing capital inputs can decrease production costs. This can also be a logical decision where there are relationships among products or when a production process is flexible enough to permit different forms of production (http://social.jrank.org/pages/2256/joint-production.html">joint production - economies of scope).

Economies of Scale: In many industries, as output increases, the average cost of each unit produced declines. This is due to the distribution of production costs and other fixed costs across a higher number of units (http:/www.economist.com/research/economics/searchActionTerms.cfm?query=economies+of+scale).

Equity in Health: Absence of unfair differences in health status, access to healthcare and health-enhancing environments, and treatment within the health and social services system (PAHO. Renewing Primary Health Care in the Americas: A Position Paper of the Pan American Health Organization/World Health Organization (PAHO/WHO). Washington, D.C., 2007).

Essential Public Health Functions: The health authority's functions with regard to: i) monitoring, evaluation and analysis of health status; ii) surveillance, research and control of the risks and threats to public health; iii) health promotion; iv) social participation in health; v) development of policies and institutional capacity for public health planning and management; vi) strengthening of public health regulation and enforcement capacity; vii) evaluation and promotion of equitable access to necessary health services; viii) human resources development and training in public health; ix) quality assurance in personal and population-based health services; x) research in public health; and xi) reduction of the impact of emergencies and disasters on health (PAHO. Public Health in the Americas: Conceptual Renewal, Performance Assessment and Bases for Action. Scientific and Technical Publication No. 589. Washington, D.C., 2002).

First Level of Care: In this document, preference has been given to the term "first level of care" instead of the term "primary care" in order to avoid confusion with the concept of Primary Health Care (PHC). For PAHO, PHC represents a broad approach to the organization and operation of the health system as a whole, and not only the delivery of health services at the first level of care. The term primary care, like the first level of care, has been defined by the USA's Institute of Medicine as the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community (Institute of Medicine. Primary care: America's Health in a New Era. Washington, D.C.: National Academy Press, 1996).

Fragmentation (of health services): Coexistence of several units or facilities that are not integrated into the health network (PAHO. Health in the Americas 2007. Vol. I, p. 319, Washington, DC: PAHO; 2007). Other definitions include: a) services that do not cover the entire range of promotion, prevention, diagnosis, treatment, rehabilitation and palliative care services; b) services at different levels of care that are not coordinated among themselves; c) services that do not continue over time; and d) services that do not meet people's needs.

Functional Integration: The extent to which key support functions and activities such as financing, human resources, strategic planning, information management, marketing and quality assurance/improvement are coordinated across all system's units. Functional integration does not imply that all activities should be centralized or standardized. Similarly, functional integration does not mean that all functions and activities should be reorganized simultaneously. However, certain functions like strategic planning should start as soon as possible (Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6).

Geographic Concentration: The extent to which operating units of a system are located in proximity to each other relative to the population served (Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6).

Governance: The process of creating an organizational vision and mission - what it will be and what it will do - in addition to defining the goals and objectives that should be met to achieve the vision and mission. Governance entails articulating the organization, its owners and the policies that derive from these values – policies concerning the options that its members should have in order to achieve the desired outcomes. It also involves appointing the management necessary for achieving those results and adopting a performance evaluation of the managers and the organization as a whole (Modified from Sinclair D, Rochon M, Leatt P. 2005. Riding the Third Rail: The Story of Ontario's Health Services Restructuring Commission. 1996–2000. The Institute for Research on Public Policy, Montreal. 65–6).

Health System: All organizations, people, and actions whose primary intent is to promote, restore or maintain health (Modified from WHO. The World Health Report 2000: Health Systems: Improving Performance. Geneva, 2000).

Health Worker-System Integration: The extent to which health workers are committed to the system; use its facilities and services; and participate actively in system planning,

management and governance. (Modified from Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6).

Horizontal Integration: Coordination of activities across operating units that are at the same stage in the process of delivering services. Examples of this type of integration are consolidations, mergers and shared services within the same level of care (Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6).

Integrated Health Service Delivery Network: A network of organizations that provides, or makes arrangements to provide, equitable, comprehensive, integrated, and continuous health services to a defined population and is willing to be held accountable for its clinical and economic outcomes and for the health status of the population served. (Modified from Shortell, SM; Anderson DA; Gillies, RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20–6).

Life Course: An approach based on a model that suggests that the health outcomes of individuals and the community depend on the interaction of multiple protective and risk factors throughout people's lives. As a result, each stage of life influences the next. The factors refer to environmental, biological, behavioral, and psychological characteristics and access to health services. This approach provides a more comprehensive vision of health and its determinants, which calls for the development of health services more centered on the needs of its users in each stage of their lives (Modified from Lu M, Halfon N. Racial and Ethnic Disparities in Birth Outcomes: A Life-Course Perspective. Mat and Chil Health J 2003; Vol 7, No. 1:13-30).

Network of Services: This refers primarily to: a) the functional coordination of provider units of a different nature; b) hierarchical organization according to level of complexity; c) a common geographic point of reference; d) command by a single operator; e) operating standards, information systems and other shared logistical resources; and f) a common purpose (Montenegro, H. Presentation, "Organización de sistemas de servicios de salud en redes". Foro internacional de redes de servicios y ordenamiento territorial en salud. Bogotá, Colombia, June 11-13, 2003).

Operating Unit: Generic term used indistinctly to refer to a health facility, clinical department or clinical service (Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993;36(2):20-6).

Personal Health Services: Health services targeted at the individual. These include, among others, health promotion, early disease prevention, diagnosis and treatment, rehabilitation, palliative care, acute care and long-term care services (OPS/OMS. Análisis del sector salud, una herramienta para viabilizar la formulación de políticas, lineamientos metodológicos. Edición especial No. 9. Washington, D.C., Febrero, 2006).

PHC-Based Health System: An overarching approach to the organization and operation of health systems that makes the right to the highest attainable level of health its main goal while maximizing equity and solidarity. A PHC-based health system is composed of a core set of functional and structural elements that guarantee universal coverage and access to services that are acceptable to the population and that are equity-enhancing. It provides comprehensive, integrated and appropriate care over time, emphasizes health promotion and prevention and assures first contact care. Families and communities are its basis for planning and action. A PHC-based health system requires a sound legal, institutional and organizational foundation as well as adequate and sustainable human, financial and technological resources. It employs optimal organization and management practices at all levels to achieve quality, efficiency and effectiveness and develops active mechanisms to maximize individual and collective participation in health. A PHC-based health system develops intersectoral actions to address determinants of health and equity (PAHO. Renewing Primary Health Care in the Americas: A Position Paper of the Pan American Health Organization/World Health Organization (PAHO/WHO). Washington, D.C., 2007).

Public Health: An organized effort by society, primarily through its public institutions, to improve, promote, protect and restore the health of the population through collective action. It includes services such as health situation analysis, health surveillance, health promotion, prevention, infectious disease control, environmental protection and sanitation, disaster and health emergency preparedness and response, and occupational health, among others (PAHO. Public Health in the Americas: Conceptual Renewal, Performance Assessment and Bases for Action. Scientific and Technical Publication No. 589. Washington, D.C.: OPS; 2002).

Public Health Services: Health services targeted at the population as a whole. These include, among others, health situation analysis, health surveillance, health promotion, prevention services, infectious disease control, environmental protection and sanitation, disaster preparedness and response, and occupational health (PAHO. Public Health in the Americas: Conceptual Renewal, Performance Assessment and Bases for Action. Scientific and Technical Publication No. 589. Washington, D.C., 2002).

Real Integration: Integration through control and direct ownership of all of the parts of the system, that is, unified ownership of assets (Satinsky MA. The Foundations of Integrated Care: Facing the Challenges of Change. American Hospital Publishing, Inc., 1998).

Segmentation (of health systems): The coexistence of subsystems with different modalities of financing, affiliation and health care delivery, each of them 'specializing' in different strata of the population according to their type of employment, income level, ability to pay, and social status. This kind of institutional arrangement consolidates and deepens inequity in access to health care services across different population groups. In organizational terms, segmentation is the coexistence of one or more public entities (depending on the degree of decentralization or deconcentration), social security (represented by one or more entities), different financers/ insurers, and private providers (depending on the extent of market and business management mechanisms introduced during sectoral reforms) (PAHO. Health in the Americas 2007. Vol. I, p. 319, Washington, DC: PAHO; 2007).

Substitution of Services: Continual regrouping of resources across care settings to exploit the best available solutions (Saltman RB, Figueras J. European Health Care Reform. Analysis of Current Strategies, WHO, Copenhagen; 1997).

Vertical Integration: The coordination of services among operating units that are at different stages of the process of delivering services. Examples of this type of integration are the linkages between hospitals and medical groups, outpatient surgery centers and home-based care agencies. There is forward vertical integration, which is toward the patient or user, and backward vertical integration, which is toward the supply side such as medical equipment and supply companies. Furthermore, there is the possibility of vertical integration with the health insurer (Modified from Shortell SM; Anderson DA; Gillies RR; Mitchell JB; Morgan KL. Building Integrated Systems: The Holographic Organization. Healthcare Forum Journal 1993; 36(2):20-6).

Virtual Integration: Integration through relationships, not asset ownership, as a means for collaboration among system components. This modality uses contracts, agreements, strategic partnerships, affiliations or franchises, which "simulate" the benefits of asset ownership. This type of integration can coexist with asset ownership (Satinsky MA. The Foundations of Integrated Care: Facing the Challenges of Change. American Hospital Publishing, Inc, 1998).

APPENDIX B

National, Sub-Regional and Regional Consultations on IHSDNs

From May to November 2008, PAHO/WHO held a series of technical consultations on the IHSDN position paper with its Member States. Depending on the case, some were national and others were sub-regional. Consultations were carried out using a similar format and a previously established questionnaire. In general, the objectives of the consultations were: i) to discuss the country's situation regarding health services fragmentation and national efforts/ initiatives to overcome it and to promote comprehensive, integrated, and continuous care for all of the country's citizens; and ii) to validate the PAHO/WHO document titled: "Integrated Health Service Delivery Networks: Concepts, Policy Options and A Road Map for Implementation in the Americas" (8 May 2008 Version).

The methodology used was a one to two day workshop. A different number of national experts on the issue (usually between 15 to 30 experts) participated in the workshops. The convened experts often included representatives from the Ministry of Health, Social Security and/or other public and/or private insurers (depending on the case), health service managers, health service providers, universities, civil society organizations, professional bodies and other relevant actors.

Finally, in November 2008, the Regional Consultation on IHSDNs was held in Belo Horizonte, Brazil. The objectives of the consultation were: i) to share international experiences in IHSDN; ii) to validate the PAHO/WHO document titled: "Integrated Health Service Delivery Networks: Concepts, Policy Options and A Road Map for Implementation in the Americas" (28 October 2008 Version); and iii) to carry out field visits to IHSDN experiences in Belo Horizonte and Janaúba, Minas Gerais State, Brazil. The Consultation consisted of the implementation of a three-day workshop with the participation of over 100 national and international experts on the issue, including representatives from the Ministry of Health, Social Security and/or other public and/or private insurers, health service managers, health service providers, and other relevant actors. As in the previous consultations, discussions about the PAHO/WHO document on IHSDNs were carried out using a previously established questionnaire.

Below are the details of the consultations carried out for the technical validation of this document.

Meeting place	Date	Participating countries
Quito, Ecuador	1 May 2008	Ecuador
Santiago, Chile	14 May 2008	Chile
Guatemala City, Guatemala	18-19 June 2008	Belize, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua and Panama
Brasilia, Brazil	5 August 2008	Brazil
Asunción, Paraguay	8 August 2008	Paraguay
Buenos Aires, Argentina	9 September 2008	Argentina
Belize City, Belize	14 October 2008	Belize
Montevideo, Uruguay	16-17 October 2008	Uruguay
Bridgetown, Barbados	23-24 October 2008	Anguilla, Antigua and Barbuda, Barbados, British Virgin Islands, Dominica, Grenada, Montserrat, St. Kitts and Nevis, St. Lucia and St. Vincent
Havana, Cuba	23 October 2008	Cuba
Saint Clair, Trinidad and Tobago	30 October 2008	Trinidad and Tobago
Mexico City, Mexico	3 November 2008	Mexico
Belo Horizonte, Brazil	17-19 November 2008	30 countries of the Americas

APPENDIX C

Matrix of Policy Options and Institutional Mechanisms to Create IHSDNs

The matrix below presents the available options of policy instruments and institutional mechanisms for the creation of IHSDNs, organized according to the essential attributes of IHSDNs. The matrix has been organized as follows:

- To avoid unnecessary repetition, each instrument or mechanism is mentioned only once even if it could be listed in more than one category (e.g., policy instruments for “capacity building of others” were grouped under the category of other policy instruments, but could also be grouped under the category of non-clinical institutional mechanisms).
- Similarly, each instrument/mechanism has been listed in the matrix cell that best represents it, although it could be listed in different categories under policy instrument, institutional mechanism or IHSDN attribute.

Matrix of available options of public policy instruments and institutional mechanisms to create Integrated Health Service Delivery Networks

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Clear definition of the population/ territory covered and extensive knowledge of the health needs and preferences of this population, which determine the supply of health services	• Assign population to be served on a territorial basis • Stratify the population assigned according to risk and vulnerability • Standardize the disaggregation of health information at the level of sub-populations	• Make available tools for health situation analyses (vital statistics registries, surveillance, epidemiological studies, comparative evaluations, corporate evaluations, qualitative research, rapid assessment techniques, etc.) • Carry out health situation analyses together with other sectors of the economy • Make available health service planning tools based on the health needs of the population		

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
An extensive network of health care facilities that offers health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care, and that integrates programs targeting specific diseases, risks and populations, as well as personal and public health services	• Define a package of services as broad as possible including quality of care parameters • Standardize a minimum population size for the operation of the service network according to criteria for efficiency, economies of scale and equity • Provide accreditation for integrated service networks (as an alternative to the accreditation of individual facilities) • Establish an appropriate legal framework for IHSDNs that facilitates, for example, consolidations, mergers, partnerships, and personnel mobility within the network	• Promote the integration of providers through financial and non-financial incentives to create integrated networks • Develop plans to invest in IHSDN infrastructure, based on supply (optimized) and demand (projected) studies • Provide tools for analyzing service delivery alternatives, including the purchase of services or the development of infrastructure • Create clinical practice groups with multiple specialties, including family doctors or generalists, which provide services in the same facility		

continued

Matrix. (continued)

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
A multi-disciplinary first level of care that covers the entire population, serves as a gateway to the system, and integrates and coordinates health care, in addition to meeting most of the population's health needs	• Standardize the gateway to the system through the first level of care • Standardize the delivery of personal and public health services in a joint manner • Standardize the qualifications of health workers at the first level of care	• Promote the training of first level of care personnel by providing educational programs or training subsidies • Equalize the wages of personnel at the first livel of care with those in specialized care • Discourage vertical programs, with the exception of specific justified cases • Merge the financing schemes of personal and public health services, whenever appropriate • Educate the population about the benefits of using the first level of care • Eliminate cost recovery schemes and direct out-of-pocket payment for services at the first level of care, especially for promotion and prevention services	• Hold the first level of care team accountable for a defined population group/community • "Specialize" care at the first level by employing generalist, "comprehensive" or family/ community physicians and nurses • Create multi-disciplinary teams • Incorporate specialists into the first level team according to health needs (nutritionists, physical therapists, social workers, dentists, pediatricians, obstetricians, internists, etc.) • Increase the diagnostic and curative capacity of the first level through basic laboratory services, radiology, mammography, spirometry, ECGs and low-complexity outpatient surgery • Implement extended hours to facilitate access to care • Implement emergency services at the first level of care	

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Delivery of specialized services at the most appropriate location, preferably in non-hospital settings	• Standardize the configuration of regionally-based health service networks (as opposed to hospital-based) • Standardize levels of care based on criteria related to demography-epidemiology, equity, efficiency, economies of scale and availability of resources • Regulate access to specialists • Regulate access to hospital inpatient care	• Build infrastructure for specialized outpatient care outside of the hospital setting • Facilitate the process of hospital reengineering through schemes for outpatient surgery, day hospitals, progressive patient care, home-based care, hospices and nursing homes • Restructure the supply of hospital services through hospital closures, mergers, consolidations, and partial closures of hospital beds in cases where there is excessive supply of hospital beds • When there is limited availability of hospital services, expand the supply of hospital beds on the basis of supply and demand studies • Promote the education of generalists and discourage the education of specialists according to the population's health needs • Carry out hospital discharge audits to determine if care was provided at the most appropriate setting		

continued

Matrix. (continued)

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Existence of mechanisms to coordinate health care throughout the health service continuum	• Standardize Clinical Practice Guidelines (CPG) for the entire network • Standardize the first level of care as the coordinator of care delivery • Provide accreditation, audit and evaluate compliance with the CPG		• Single medical record • Clinical pathways, care maps, and protocols • Inter-institutional referral and counter-referral guidelines • Classification of referrals according to risk and priority of care • Inter-disciplinary consultation / referral form • Physician / hospital discharge report • Integrated clinical sessions across levels of care • Staff rotations across levels of care • Case management • Disease management • Clinical service lines • Telemedicine	

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Care that is person-, family- and community-centered and that takes into account cultural and gender-related characteristics and diversity	• Standardize patient's charter of health rights • Establish legal mechanisms so that people can demand their right to health care • Standardize models of care centered on the person, the family and the community/territory • Standardize models of care that incorporate an intercultural and gender-based approach	• Educate people on their right to health care • Make available information on health and health services to the population	• Promote and develop health education • Incorporate community health workers • Incorporate models of home- and community-based care • Incorporate traditional and alternative medicine • Incorporate self-care and disease self-management schemes • Classify individuals, families and communities according to risks • Incorporate participation mechanisms for involvement in the clinical decision making process	• Train health workers on people's / patients' rights to health care and on new models of care

continued

Matrix. (continued)

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
A unified system of governance for the entire network	• Create an entity for network governance at the regional or sub-regional level, depending on the case (region, province, state, district, municipality) • Create a board with representation from relevant actors, including service providers and the community • Standardize structures of unified corporate governance for the entire network (executive director or corporate directorate) • Manage and align international cooperation, seeking the development of IHSDNs as the preferred alternative for the organization, management and delivery of health services	• Train the executive / management directorate in network management • Rotate members of the directorate through the different operating units of the system • Educate the population and health providers about the benefits of integrated networks		• Develop the mission, vision, values and objectives of the network as a whole in a participatory manner • Carry out strategic planning, resource allocation and performance evaluation for the entire network in a shared manner • Agree on a system for network monitoring and performance evaluation, with targets for the entire network and individual goals for the different operating units
Broad social participation	• Standardize mechanisms for social participation in the management of health services			• Involve health workers in the governance and management of IHSDNs • Involve the community in the governance and performance evaluation of IHSDNs • Conduct surveys on user satisfaction with health services

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Intersectoral action that addresses wider determinants of health and equity in health	• Joint formulation and implementation of public policies across different sectors • Legal framework appropriate for intersectoral action	• Develop joint intersectoral action programs • Finance schemes for integrated delivery of health / social services	• Implement health actions at the level of the household, the community, schools and workplaces	• Create social welfare teams
Integrated management of clinical, administrative and logistical support systems	• Create entity for the executive management of the network at the regional or sub-regional level, depending on the case (region, province, state, district, municipality)			• Implement matrix-based organizational designs (between production lines based on products/ services and those based on geographic/population responsibility) • Ensure the management aspects of structure, planning and coordination of quality improvement efforts • Prepare contracts, management contracts and/or management agreements with targets for clinical/ administrative integration within the network • Establish centralized appointment coordination centers for users • Improve communication systems within the system (e-mail, telephones) • Integrate clinical support systems within the system (clinical laboratory, radiology, blood bank, anatomic pathology, etc.) • Integrate drug and medical supply procurement, storage and delivery systems within the network • Integrate the medical transportation system • Integrate the system for the procurement of equipment, etc.

continued

Matrix. (continued)

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Sufficient, competent and committed human resources for health that are valued by the network	• National policies for the training and management of human resources that are compatible with network needs • Creation of flexible requirements for the certification and re-certification of health workers to facilitate reassignments within the network	• Develop civil service career schemes for system personnel • Work jointly with human resources training institutions to prepare personnel consistent with networks (teamwork, systems approach, continuous quality improvement, use of guidelines and protocols, cost-effectiveness and cost-benefit analyses, epidemiology, population-based health situation diagnosis, etc.)		• Facilitate the training of multi-disciplinary work teams and multi-purpose workers • Train personnel to create a flexible workforce that can be utilized across all care settings • Implement personnel training programs in an integrated manner
An integrated information system that links all network members with data disaggregated by sex, age, place of residence, ethnic origin, and other pertinent variables	• Standardize population-based information systems • Standardize information systems that disaggregate information according to population sub-groups	• Disseminate information about the performance of IHSDNs to all network members, including the community • Train policymakers, health service managers, and health care providers in data analysis in order to generate information and knowledge for action • Monitor the performance of IHSDNs using a “scorecard” that includes variables related to financing, access, quality and outcomes	• Single electronic medical record • Single, unique ID (code) for each beneficiary through the entire network (both for clinical and administrative data) • Computerize all clinical information on users • Set up systems to guide clinical decision making • Make available on-line consultation systems for users	• Centralized, automated appointment centers for patients • Implement a smart health card • Computerize administrative, budgetary, financing, accounting, cost and other types of management systems

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Results-based management	• Standardize processes for the accountability of network performance	• Link the resource allocation system with performance evaluation processes		• Define realistic expected results for the performance of the network as a whole • Set up monitoring and performance evaluation systems • Evaluate and incorporate lessons learned in clinical practice and network management • Link processes for health worker compensation with performance evaluation • Establish incentive systems for good teamwork • Carry out and/or contract mixed operations research (across several operating units) within the network

continued

Matrix. (continued)

IHSDN Attribute	Public Policy Instruments		Institutional Mechanisms	
	Legal	Other Policy Instruments	Clinical	Non-Clinical
Adequate funding and financial incentives aligned with network goals		• Develop financial incentives for network integration (e.g., risk-adjusted per capita payment for the entire network) • Special financial incentives to stimulate promotion and prevention services • Higher allocation of financial resources (of operation and capital) for the first level of care and other ambulatory services • Implement health worker remuneration mechanisms in a way that they share the financial risk with regard to network performance		• Develop financial incentives for the achievement of health goals, the integration of the network as a whole, and the delivery of services at the most cost-effective setting • Integrate the budgeting system across the entire network • Establish cost centers

APPENDIX D

PAN AMERICAN HEALTH ORGANIZATION
WORLD HEALTH ORGANIZATION

49th DIRECTING COUNCIL
61st SESSION OF THE REGIONAL COMMITTEE

Washington, D.C., USA, 28 September-2 October 2009

CD49.R22 (Eng.)
ORIGINAL: SPANISH

RESOLUTION

CD49.R22

INTEGRATED HEALTH SERVICES DELIVERY NETWORKS BASED ON PRIMARY HEALTH CARE

THE 49th DIRECTING COUNCIL,

Having reviewed the report of the Director *Integrated Health Services Delivery Networks Based on Primary Health Care* (Document CD49/16) which summarizes the problem of health services fragmentation and proposes the creation of integrated health services delivery networks to address it;

Concerned about the high degree of health services fragmentation and its adverse impact on the general performance of health systems, manifested in difficulty accessing the services, the delivery of services low in technical quality, irrational and inefficient use of the available resources, an unnecessary increase in production costs and low levels of user satisfaction with the services received;

Aware of the need for strengthening health systems based on primary health care (PHC) as an essential strategy for meeting national and international health targets, among them those stipulated in the Millennium Development Goals;

Recognizing that integrated health services delivery networks are one of the principal operational expressions of the PHC approach in health service delivery, helping to make several of its essential elements a reality, namely universal coverage and access; the first contact; comprehensive care; appropriate health care; optimal organization and management; and intersectoral action, etc.;

Aware that integrated health services delivery networks increase access to the system, reduce inappropriate care and the fragmentation of care, prevent the duplication of infrastructure and services, lower production costs, and better meet the needs and expectations of individuals, families, and communities;

Recognizing the commitments made in Article III of the Declaration of Montevideo on the renewal of primary health care, paragraph 49 of the Health Agenda for the Americas 2008-2017; and paragraph 6 of the Iquique Consensus of the XVII Ibero-American Summit of Ministers of Health, which underscore the need to develop more comprehensive models of care that include health services networks,

RESOLVES:

1. To urge Member States to:

(a) take note of the problem of health services fragmentation in the health system and, when applicable, in the subsystems that comprise it;

(b) facilitate dialogue with all relevant stakeholders, particularly health service providers and home and community caregivers about the problem of service fragmentation and the strategies to address it;

(c) prepare a national plan of action promoting the creation of integrated health services delivery networks with a family and community health approach as the preferred modality for health services delivery in the country;

(d) promote human resources education and management compatible with the creation of integrated health services delivery networks;

(e) implement and periodically evaluate the national plan of action for the creation of integrated health service networks.

2. To request the Director to:

(a) support the countries of the Region in the preparation of their national plans of action for the creation of integrated health services delivery networks;

(b) promote the creation of integrated health services delivery networks along common borders, including, when applicable, plans for cooperation and/or compensation for services between countries (or "shared services" in the case of the Caribbean);

(c) develop conceptual and analytical frameworks, tools, methodologies, and guidelines that facilitate the creation of integrated health services delivery networks;

(d) develop a guidance document for the implementation of the Integrated Health Service Delivery Networks in conjunction with the interested parties;

(e) support human resources training and health management compatible with the creation of integrated health services delivery networks, including unpaid individuals who provide health care in the home and community;

(f) mobilize resources to support the creation of integrated health services delivery networks in the Region, which includes the documentation of good practices and the sharing of information on successful experiences among countries;

(g) develop an audit and evaluation framework, which includes performance indicators and monitoring mechanisms, for evaluating the action plans and the progress of the implementation of the Integrated Health Service Delivery Networks;

(h) promote dialogue with the international cooperation/donor community to raise awareness about the problem of health services fragmentation and seek its support for the creation of integrated health services delivery networks in the Region.

(Ninth plenary, 2 October 2009)

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