

Best Practices in Intercultural Health

John O'Neill
Judith Bartlett
Javier Mignone

Inter-American Development Bank

Washington, D.C.

Sustainable Development Department
Best Practices Series

Research was developed by John O'Neil, Judith Bartlett and Javier Mignone of the Center for Aboriginal Health Research at the University of Manitoba, supported at the national level by Andrés Kuyul and Valentina Farías in Chile; Acibíades Escué, Harold Gómez and Angélica Aguilar in Colombia; Edwin Piedra and José Solá in Ecuador; Ramiro Batzin and Hugo Icó in Guatemala; and the Medical Mission and Amazon Conservation Team in Suriname. Research assistance was provided by Jessica Herrera, Lucía Madariaga and Treena Orchard, and administrative and technical support was provided by Dawn Stewart, Brenda Rathier and Dianne Rogers. The final text incorporates comments from an expert workshop organized by PAHO and the IDB and held at the Bank's headquarters in 2005. Carlos Perafán and Lina Uribe edited the publication in Washington, D.C.

The opinions expressed herein are those of the authors and do not necessarily represent the official position of the Inter-American Development Bank. Permission is granted to reproduce this paper in whole or in part for noncommercial purposes only and with proper attribution to the authors, the Sustainable Development Department and the Bank.

Publication of the Inter-American Development Bank, June 2006.

Manager, Sustainable Development Department: Antonio Vives
Deputy Manager, Social Development and Public Governance Subdepartment: Marco Ferroni

For additional copies of this publication (Reference IND-XXX), please contact:

IND Publications
Mail Stop W-0502
Inter-American Development Bank
1300 New York Avenue, N.W.
Washington, D.C. 20577

E-mail: sds/ind@iadb.org
Fax: 202-623-1463
Web Site: www.iadb.org/sds/ind

**Cataloging-in-Publication data provided by the
Inter-American Development Bank
Felipe Herrera Library**

Foreword

The Bank's Operational Policy on Indigenous Peoples (OP-765), adopted in 2006, mandates the Bank to mainstream indigenous peoples specificity into its programs and to support "development with identity" initiatives. One of the issues addressed in the policy is the development of socio-culturally appropriate solutions to increase the availability and quality of social services, particularly in health and education. With regard to health projects, the policy requires the Bank to support the adaptation and articulation of public health services to take into account indigenous knowledge, practices and values, and, when appropriate, the preservation and strengthening of traditional indigenous systems of health and healing.

The Bank's Strategy for Indigenous Development, which accompanies the policy, states that, in order to narrow the quantitative and qualitative gap in health services received by indigenous peoples, the Bank should support specific affirmative and socio-culturally appropriate actions that take into account the importance of strengthening indigenous traditional practices, breaking down cultural barriers that limit access to public health services, and coordinating allopathic and indigenous health care systems. In addition, it encourages pilot project initiatives to "support intercultural health systems."

This paper presents some of the background research that contributed to the discussions within the Bank on the policy and strategy regarding indigenous health issues. The paper's conceptual approach and good practice research helped focus the discussion on the importance of intercultural health practices to promote indigenous peoples' access to allopathic health as well as to strengthen those traditional health practices based on indigenous peoples' own knowledge, culture, social networks, institutions and ways of life, that have shown their effectiveness.

The paper presents five intercultural health experiences (in Suriname, Guatemala, Chile, Ecuador and Colombia) that are considered best practices in the field. Although poorly financed, these experiences highlight the significance to indigenous peoples of health models that bridge the gap between state-financed allopathic health services and their own indigenous health systems. This study however, does not represent a medical trial on the efficacy or efficiency of intercultural health models. To further advance knowledge based on quantitative evidence would require overcoming the limits of national health statistics and lack of solid data on intercultural or indigenous health experiences and to engage in extensive and costly research including clinical trials. Nevertheless, the Center for Aboriginal Health Research has made a solid effort to identify the strengths, weaknesses, risks and challenges of these experiences in Latin America and the Caribbean, which Bank staff, national counterpart institutions and indigenous peoples themselves may find useful as they seek culturally appropriate ways to offer health services to indigenous peoples and improve their health status and overall well-being.

Anne Deruyttere, Chief
Indigenous Peoples and Community Development Unit

Contents

I.	Introduction	1
II.	Case Studies	4
III.	Conclusions	46
IV.	Recommendations	57
V.	Bibliography	61
	Annex	66

I. Introduction

The practice of integrating western and traditional medicines is fast becoming an accepted and ever more widely used approach in health care systems throughout the world. However, recent debates about the development of intercultural health approaches have raised significant concerns regarding regulation, efficacy, intellectual property rights, lack of cross-cultural research, access and affordability, as well as protection of sacred indigenous plants and knowledge.

In this study, intercultural health is understood essentially as practices in health and health care that bridge indigenous medicine and western medicine, where both are considered as complementary. The basic premises are mutual respect, equal recognition of knowledge, willingness to interact, and flexibility to change as a result of these interactions. Intercultural health takes place at different levels, including at the level of the family, practitioner, health center, hospital, and health system. A “best practice” in health care needs: demonstrate a tangible and positive *impact* on the individuals and population served; be *sustainable*; be *responsive and relevant* to patient and community health needs as well as to cultural and environmental realities; be *focused on the client*, including issues of gender and social inclusion; *improve access*, and *coordinate and integrate* services; be *efficient and flexible*; demonstrate *leadership*; be *innovative*; show potential for *replication*, and *identify health and policy needs*; and have the *capacity for evaluation*.

The five case studies selected for research were in Chile (Makewe Pelale Hospital and Boroa Health Center, Temuco), Colombia (CRIC/AIC/IPS, Cauca), Ecuador (Jambi Huasi, Otavalo), Guatemala (Comadronas Association, Kaslen Foundation and Health Center, Comalapa), and Suriname (Medical Mission and Amazon Conservation Team clinics, Kwamalasamutu and Pëlele Tëpu).

This study was informed by multiple data sources, namely the case studies of intercultural health

models in each of the five countries and structured and semi-structured interviews, both of which were designed in collaboration with indigenous leaders/local consultants and national consultants. Along with extensive literature reviews, detailed observational notes of fieldwork activities were made, numerous local documents were collected, and quantitative data was also gathered. The wide array of research participants, including indigenous community members, government officials, western and traditional health care providers, and NGO staff, helped ensure an in-depth contextualization of the social, cultural, organizational, and political factors impacting the complex issue of intercultural health.

A major limitation of the study was the absence of information systems in each country that would have permitted a more quantitative epidemiological assessment of health outcomes related to intercultural health practices. Not only is little data collected on indigenous health practices, but also state health information systems in most cases would not permit outcome analyses of western health care practices.

The study understands that a best practice is context dependent, in the sense that it is the best possible response to a particular reality and context, including several factors: demographic (proportion of indigenous people in the area), geographic (urban, rural, degree of isolation, concentration of population), historical (strength of indigenous organizations and communities, country and regional legislation) and environmental (resources and organization, political, social and economic situation of the country). Although no one case study met every criterion, reviewing the cases collectively provided opportunity for the research team to comment on broad intercultural health parameters such as benefits and impacts, challenges and constraints, and risks and limitations. Finally, we were able to provide a summary and recommendations based on analyses of those cases that provided the most opportunity for

health gain for indigenous populations in the countries studied.

The paper includes an overview of the case studies followed by general conclusions and recommendations. Case studies are presented with the following detail: (i) country level history and context; (ii) health service environment; (iii) epidemiological context; (iv) indigenous history and cultural context; (v) cultural, funding and management approaches to intercultural health service development (approaches to culturally appropriate health services, approaches to health services funding and management, and health system based on indigenous people's parameters and cultural concepts of well-being, illness and death); (vi) perceptions of opportunities and benefits provided by intercultural health initiatives (opportunities provided by the articulation of traditional and conventional medical practices for indigenous peoples' health systems, opportunities in health services funding and management, and benefits of initiatives that articulate indigenous medicine and conventional health services); (vii) perceptions of constraints and risks associated with the articulation of indigenous and western health systems (constraints on the articulation of indigenous and conventional health practices for indigenous peoples' health systems; constraints in health services funding and management, legal regulatory framework related to traditional medicine practices and culturally appropriate health services, and risks faced by initiatives that articulate Indigenous medicine and conventional health services) and (viii) assessment of impacts of intercultural health system development.

Methodology

This study used a replicative case study design that falls within a unique methodological tradition of inquiry and is complementary to other research strategies. Case study methods have been widely utilized in anthropological research, but are also employed where the focus is on a holistic understanding of how and why certain events or decisions have occurred over time. This method is particularly well suited to interdisciplinary work. Yin (1991) has defined the case study as "an empirical inquiry that: a) investigates a contemporary

phenomenon within its real-life context, b) the boundaries between the phenomenon and context are not clearly evident, and c) multiple sources of evidence are used." Case study research is largely exploratory and descriptive, rather than causal. Case study methodology must meet the scientific standards of validity and reliability. Validity was satisfied in our study by using multiple sources of evidence, maintaining an accurate and transparent record of the data collection process, and providing for the participation of case study stakeholders in the analytical process. Having multiple investigators examine the specifics of each case and compare observations also strengthened validity. Rigorous documentation of the data collection process across case studies and investigators increased reliability.

Data collection took place over a six-month period (August 2004 to January 2005), with an average of eight days of fieldwork in each country by the Canadian researchers, accompanied by the local and national consultants. Additionally, the consultants conducted prior in-country work in order to produce background documents in advance of the fieldwork, and local consultants organized the extensive, and often complex and sensitive, fieldwork logistics.

Three hundred and fifty-nine persons participated in interviews and meetings across the five case studies. The researchers also participated in community events that in total included approximately 450 people. This was useful in receiving a broad array of perspectives, opinions and recommendations on the issue of intercultural health practices. At all the sites, after an initial orientation with national and local consultants, data gathering interviews began at the local level, then moved to regional and finally national levels. Within the local level, data was first gathered from indigenous service providers and community members, next from indigenous political organizations, and finally from government and organizations or western health systems. This allowed for better contextualization of relevant government policy related interviews such that they could be analyzed through a "community lens".

A case study field guide was developed in consultation with the indigenous leader/local consultant

and national consultant for each field site. The field guides allowed for more efficient collection of both general (comparative) and specific (unique) information for each site.

Data was collected through open-ended and semi-structured key informant interviews as well as structured interviews. In general, key informants for each case study were identified in consultation with local and national consultants. The interview guides were designed to operationalize the research questions described in the conceptual framework. Where necessary, interviews were conducted in the relevant indigenous language with the assistance of an interpreter. Oral consent

to participate in the study was obtained from local communities, organizations, agencies, and individuals.

Observations were recorded, and numerous written documents and some quantitative data were gathered and reviewed. These were recorded as rigorously as possible, given the specific context of each observational activity. Some activities were video recorded or photographed. In all instances documentation of observations did not include personal identifiers to protect the anonymity and confidentiality of case study participants. Analysis was completed following the pre-designed case study framework (Annex).

Table 1. Summary Information for Each Case Study

	Suriname	Guatemala	Chile	Ecuador	Colombia
Case Study	MM and ACT Clinics	<i>Comadronas</i> Association in Comalapa, Kaslen Foundation, Health Centre	Makewe Pelale Hospital, Boroa Health Centre	Jambi Huasi Clinic/Midwife Association/Yachac Association	CRIC/AIC /IPS
Place	Kwamalasamutu and Pëlele Tëpu	Comalapa and Surrounding Areas	Temuco and Surrounding Areas	Otavaló and Surrounding Areas; Tena and Surrounding Areas	Popayán and Other Areas in the Cauca Region
Individual Interviews	10	10	7	12	10
Group Interviews /Meetings	12	7	11	14	12
Total Participants	73	57	39	96	93
Community Events	None	None	1 (250 people)	1 (50 people)	1 (150 people)
Locations Observed	8	9	7	5	12
Documents /Data Files	12	12	42	25	23

II. Case Studies

The five case studies are summarized in this section. The cases involve the Makewe Pelale Hospital and Boroa Health Center, in Temuco, Chile; the CRIC/AIC/IPS in Cauca, Colombia; the Jambi Huasi in Otavalo, Ecuador; the *Comadronas* Association and the Kaslen Foundation and Health Center in Comalapa, Guatemala; and the Medical Mission and Amazon Conservation Team clinics in Kwamalasamutu and Pëlele Tëpu, Suriname.

Suriname

Topographically, Suriname is divided into northern coastal lowlands, a central savannah region, and southern highlands characterized by tropical rainforest referred to collectively as the “hinterland.” Only the coastal region, which makes up only 10 percent of the total area of Suriname, is well inhabited, concentrating 85 percent of the total population. The two urban localities of Paramaribo and the Wanica district are home to 68 percent of the total population, but constitute only 0.4 percent of the country’s total land area. The Sipaliwini district, created in 1984, constitutes the largest southern section of the country (130,566 km²) but has an estimated population density of only 0.9 persons per km² (in the year 2000). The overall population density of Suriname in 2003 was 2.9 per km².

The population’s ethnic composition is quite diverse and includes Creole (35 percent), East Indian (35 percent), Indonesian (16 percent), Maroon (descendants of runaway slaves) (8 percent), Amerindian (3 percent), Chinese (2 percent), and European, Lebanese and others (1 percent). The main religions are Christianity (42 percent), Hinduism (27 percent) and Islam (20 percent). The state’s official language is Dutch, but many other languages are spoken by Suriname’s multicultural society.

The provisional results of the 2003 census show that the total population of Suriname is 481,146.

The total estimated Amerindian population (both upper and lower land Amerindians) is 14,400. The registered indigenous population is significantly lower at 4,654. Indigenous tribal members live in twelve villages that range in size from 51 to 1074 individuals. Most have a population of fewer than 200 people and only Kwamalasamutu has a population over 1,000.

Since its official independence in 1975, the sociopolitical climate in Suriname has been turbulent. The move to independence, the military coup in 1980, and the introduction of a structural adjustment program in 1993 led to some emigration. There have been frequently strikes and street demonstrations calling for reductions in prices, increases in salaries, greater availability of housing, and the resignation of the ruling government. The major strikes that began in 1998 and continued through 1999 resulted in moving forward of elections, which were held in 2000.

The Environment for Health Services

The period after 1950 brought two important developments, the emergence of a curative health care system and a focus on controllable infectious diseases. Curative health care spread throughout the country and became accessible to every resident of Suriname. However, in the city and coastal districts, accessibility was still limited by financial “thresholds.” In the interior of the country, the Medical Mission of Suriname, which was created in 1974 through an amalgamation of three religious organizations already providing basic health care, was subsidized by the government to ensure the provision of curative and preventive care. Although a number of new hospitals were being built, they were usually to replace existing ones so that there was no net increase in the number of hospitals in the country. General health care in Paramaribo remained mainly in the hands of private physicians, and by 1977 specialist care was concentrated in Paramaribo in four hospitals (one of them a teaching hospital).

Health care expenditures currently account for 9.4 percent of Suriname's gross domestic product; per capita health care expenditures are around US\$180. Similar to the situation in developed countries, a large part of the available resources go to secondary and tertiary health care, while expenditures for primary and preventive care constitute about one-third of total expenditures. The supply of medicines depends on a government-owned drug procurement company and a large number of private importers and pharmacies. The government provides about 43 percent of the financing of health care. The Ministry of Public Health and various other health sector institutions maintain relations of cooperation with United Nations organizations, international financiers, the European Union, and various bilateral donors. Furthermore, there are a considerable number of technical and financial cooperation relations between foreign universities and local government authorities.

Residents of the coastal area, including Paramaribo, can obtain primary care from the public Regional Health Service, private doctors, or salaried general practitioners hired by private employers to serve employees and their families. They can receive hospital care from public or private hospitals and consult specialists in private practice or those employed by public hospitals. People who live in the interior have access to primary services at the clinics run by the Medical Mission (Stichting Medische Zending Primary Health Care) and can also use the private Diakonessenhuis hospital.

The provision of health care to indigenous populations in the interior began through the work of three separate church organizations (Medizebs, PAS, MZS). Services were first provided by missionaries, later by nurses, and finally by doctors, all employed by the church. In the 1960s, the government proposed to subsidize the activities of the three organizations if they agreed to combine their efforts. A foundation with representation from Baptist, Roman Catholic and Moruvian Protestant churches was established, and in 1974 the responsibility of the government for medical care in the hinterland was transferred to the so-called "Medical Mission". The Medical Mission had difficulty finding a director and eventually asked the Diakonessenhuis (the hospital run by the Suriname

Foundation Diakonessenarbeid) to manage the provision of services in the hinterland. One outcome of this was that the services became more professional and business-oriented rather than missionary in character.

Since then, the Medical Mission has experienced difficult yet continuous growth, and currently has more than 200 workers and 52 outpatient departments distributed across the hinterland in Amerindian and Maroon villages. The agreement with the government requires it to organize the delivery of health care services for the interior's 50,000 inhabitants, who are mostly Maroon with a smaller number of Amerindians. Medical posts are located such that they can be reached within half an hour from every village or locality. Most communities in the hinterland are situated along the river, which is used for transportation. However, during the dry season, when the river is low, travel becomes more difficult and the villages become more isolated. A number of communities in the south of the country can be reached only by air.

The Medical Mission provides medical care in the hinterland according to the primary health care system, which implies offering essential care based on practical, scientific, and culturally and socially acceptable methods. Its principles are that it be available to anyone in the community, that there be participation of the community, that it be integrated to the health care system of the country, and that it be the first level of contact with health care services for the users.

The first line of care in the hinterland is provided by health assistants at the health posts. The Diakonessenhuis provides the second line of care. A Coordination Center in Paramaribo is responsible for overseeing health care provision in the five hinterland regions. Each region falls under the responsibility of a regional manager, a physician who may be assisted by nurses or other local physicians. The regional manager performs regular visits to the outpatient departments that fall under his/her responsibility (on-site visits).

Epidemiological Context

The prevailing mortality and morbidity patterns (table 2) suggest that Suriname is experiencing

problems typical of both low-income and developed countries. There is an increasing prevalence of “developed country” diseases (e.g. diabetes, cardiac disease, asthma) and a decreasing number of “developing country” diseases (e.g. tuberculosis, respiratory infections). This indicates that Suriname is going through an epidemiological transition. Studies also observe that morbidity and mortality statistics and existing surveillance systems are incomplete and fragmented and do not provide the information required to react appropriately to the rapidly changing epidemiological profile.

Few studies have been undertaken to ascertain the extent of disparities in health status among Suriname’s indigenous population, but there appears to be evidence that a significant discrepancy exists (Hendon, 2002). Common diseases afflicting Amerindians in the interior include malaria, tuberculosis, gastrointestinal disorders, leishmaniasis, and respiratory infections (see table 3). Amerindians in Suriname also have a comparatively high rate of suicide.

Table 2. Mortality and Morbidity Indicators in Suriname

Crude birth rate (per 1,000)	19.5
Life expectancy at birth (in years)	67.6
Total population	64.4
Males	70.8
Females	
Maternal mortality rate (per 100,000 live births)	31.9
Infant mortality rate (per 1,000 live births)	28.4
Under five mortality rate (1,000 live births)	31.7

Table 3. Positive Malaria Cases, 1998 – 2003

Village	2003	2002	2001	2000	1999	1998
Kawemhakan	65	52	27	48	74	43
Kwamalasamutu	1,093	756	301	89	373	518
Palumeu	132	356	24	49	43	19
Pëlele Tëpu	216	117	18	59	90	19
Puleowime	160	87	53	87	62	88
Sipaliwimi	149	10	7	1	-	-
Total	1,815	1,378	440	333	642	687

Note: There was an outbreak of malaria in 2003 and some individuals may have been infected more than once. Thus, there may have been more cases of malaria than the number of individuals.

Table 4. Sexual Transmitted Diseases Registered in Upper-Land Amerindians by the Medical Mission

Village	Genital Excretion				
	2003	2002	2001	2000	1999
Kawemhakan	7	13	10	2	1
Kwamalasamutu	1	5	4	2	7
Palumeu	21	0	3	1	4
Pëlele Tëpu	0	0	1	2	0
Puleowime	0	0	0	0	0
Sipaliwini	3	0	0	0	0
Total	32	18	18	7	12

Note: No cases of genital ulcers or warts were reported in most villages during the period studied. The only exception is Kwamalasamutu where there was one case of ulcers reported in 2000 and one case of warts reported in 2001.

Table 5. Chronic Diseases

Village	Asthma	Diabetes	Epilepsy	Cardiac Disease	Hypertension	Stomach Trouble	Psychosis	Rheumatism	Sicklecell Disease	Tuberculosis
Kawemhakan	1	2	-	-	1	2	-	-	-	-
Kwamalasamutu	6	4	3	8	2	7	2	1	-	3
Palumeu	1	-	-	-	-	2	-	-	-	-
Pëlele Tëpu	2	1	-	-	2	4	-	-	-	2
Puleowime	16	15	3	15	9	4	-	-	3	-
Sipaliwini	-	-	-	-	1	2	-	-	-	-
Total	26	22	6	23	15	21	2	1	3	5

Frequent travel of indigenous people between different areas can lead to casual sexual contacts with people outside their own community. An existing culture of sexual socialization that starts at a very young age for both men and women are factors that influence the prevalence of sexually transmitted diseases and HIV infection. The figures presented in table 4 are lower than would be expected because of underreporting and alternative treatments for these diseases. In terms of HIV/AIDS, to date no cases have been reported among upper-land Amerindians. Table 4 shows STD data for upper-land Amerindians collected by the Medical Mission. In 2003, there was an almost 100 percent increase in cases with genital excretion, which was due to an outbreak in one particular village. The noticeable variability

across villages, coupled with unstable rates due to low numbers, precludes any general conclusion.

Table 5 shows the prevalence of chronic diseases in the upper-land indigenous population as registered by the Medical Mission. Again, underreporting is expected, due to formal and informal visits by traditional healers, which are not captured in the Medical Mission data.

Indigenous Historical and Cultural Context

Guiana is an “island” of land in northeastern South America bounded by the Orinoco, Negro and Amazon rivers and the Casiquiare canal. Although considered part of greater Amazonia, the Guiana massif is geologically distinct from the

Amazon basin proper and comprises the oldest land formation in South America. The flora and fauna are largely shared, although there are a number of species endemic to either region. Guiana is one of the largest intact rainforests remaining in the world. Politically, it encompasses parts of Venezuela and Brazil, as well as the entire territory of Guyana (formerly British Guiana), Suriname (formerly Dutch Guiana), and French Guiana (the only remaining colony in South America).

Amerindian peoples have inhabited the region of Guiana for approximately 10,000 years. Modern tribes originate from Carib-speaking peoples, although Arawak, Tupi-Guarani, Salivan and other groups are also represented. Viewed collectively, the Carib linguistic group presently comprises 30 to 40 languages spoken by small tribal groups ranging westerly from the Yukpa of northeastern Colombia to a few southern outliers such as the Kuikuru of the Brazilian Upper Xingu. The largest concentration of Carib-speaking tribes in South America, however, lies in the heart of the Guianese rainforest.

Until relatively recently, most forest tribes of Guiana lived in small bands of 15 to 30 people. Alternating between cultivation and hunting and gathering strategies, groups relocated every five to ten years following depletion of resources, conflict, diseases, or deaths. The groups' social organization characteristically did not have a paramount chief; they were usually led by a charismatic elder who did not exercise strong authoritarian rule. Kinship ties and marriage alliances sustained relationships between the groups throughout the large territories they inhabited.

Anthropologists working in the region identify the Carib-speaking tribes of Guiana as forming a distinct subculture in comparison to other Amazonian groups. In a definitive review of Carib-speaking tribes, Basso (1977) identifies eight traits that are "typically" Carib: bitter manioc cultivation; bilateral reckoning of kinship relationship, no descent units; social categorization in terms of bilaterally related kinship; shamanistic rituals (that involve curing); pan-village communal ceremonies that are secular and commemorative in nature; use of tobacco as the principal

means of inducing extraordinary experiences; mirror-image or shadow conceptualization of the soul; female puberty seclusion and associated belief in menstrual pollution.

Amerindian tribes in Suriname are divided into two groups: those that inhabit lowland coastal areas, and the inhabitants of the interior or highland rainforest areas. Lowland tribes have road access to towns and cities and tend to be more integrated into the multicultural framework of modern Suriname. Highland tribes are generally more isolated and are reachable only by long, arduous overland journeys or by air. Highland tribes have maintained their cultural traditions intact into the present period.

The Trio, a Carib tribe of Suriname Guiana, embodied most of the aforementioned characteristics prior to sustained contact in the 1960s. The Trio inhabit an area approximately bounded by 1 and 3.5 degrees north latitude and by 55 and 57 degrees west longitude. The region encompasses both sides of the Suriname and Brazilian frontier, is covered for the most part in tropical forest, although there are important areas of savannas on the headwaters of the Sipaliwini and West Paru rivers. The Trio are quite isolated: an expedition to Trio tribal lands from the coast of Suriname requires weeks of travel through the difficult terrain of the forested interior. In contrast to the wide, easily navigable rivers of the Amazon basin, Guianese rivers are often interrupted by rapids, making canoe expeditions both cumbersome and hazardous.

As early as the 17th century, the colonial inhabitants of Suriname were vaguely aware of the existence of a group of Indians living in the deep interior called Trio. These reports were most likely not obtained through direct contact, but rather indirectly from reports from Maroons, the historic trading partners of the Trio. The Maroons consist of six tribes of descendents of slaves that fled the cruel conditions of Dutch coastal plantations in the 17th and early 18th century, establishing themselves in the interior jungle. As a consequence, the Maroon tribes retained a significant degree of their West African ideology, religion, tribal organization and language. Maroons, called *mekoro* by the Trio, had long established trading relation-

ships with the Trio of the Upper Tapanahoni, offering metal tools in exchange for hunting dogs, arrows, and baskets.

The Trio have a well-documented history of sporadic contact with non-indigenous peoples, largely explorers and ethnographers. The first recorded contact occurred in 1843 when the Prussian explorer and naturalist Robert Schomburgk met the Trio on the Kutari and near the headwaters of the Anamu River in Brazil. In 1878, the French naval surgeon and explorer Jules Crevaux encountered a few Trios on the upper East Paru in Brazil. From 1904-1910, there were three official Dutch expeditions that located the Trio in same region described by Schomburgk and Crevaux. These expeditions provided valuable ethnographic descriptions and censuses. An American ethnographer, Farabee, entered the same region five years later.

The Trio remained otherwise isolated for another two decades. In 1938, two Americans entered the region looking for Redfern, a compatriot whose airplane was thought to have crashed in the area. The 1940-1942 Surinamese Creole Lodewijk Schimdt made three journeys in which he traversed nearly the entire territory inhabited by the Trio. The most significant contribution of his reports was a meticulous census that placed the number of Trio villages at 25 with a total population of 687 (461 in Brazil and 226 in Suriname).

The introduction of air travel marked the beginning of a period of permanent contact and enormous socio-cultural change. In 1959, the Brazilian Air Force constructed an airstrip in the West Paru savannas. Shortly thereafter, Operation Grasshopper, a broad colonial initiative to develop the interior, resulted in the construction of several airstrips that afforded access to Trio lands in Suriname. Following closely the opening up of the interior to air travel, a Franciscan mission (today called Missaõ Tiriyó) was established by Protásio Frikel near the Brazilian air force base. American evangelical missionaries (initially the American Door-to-Life Gospel Mission, later taken over by the West Indies Mission) made first sustained contact with the Trios in the Sipaliwini basin in 1961. Led by Claude Leavitt, the missionaries convinced the members of the scattered bands to merge into larger nucleated settlements in order to

facilitate conversion as well as to provide access to traded goods, western education, and health care.

Ethnographic evidence indicates that the Trio were highly isolated at the time of sustained contact by missionaries in the early 1960s. Serologic studies documented a lower exposure to introduced respiratory pathogens than any people studied worldwide, except one group of South Pacific islanders. Although the Trio today remain quite geographically remote and their basic subsistence/hunting activities are largely unchanged, missionaries and other forces of acculturation have had a rapid and profound impact on their culture. By 1963 traditional dances, festivals, music, songs, and oral traditions had been abandoned as a result of the strong dissuasion of American evangelical missionaries who viewed it as a hindrance to the Trios' full and unconditional acceptance of Jesus Christ. In the absence of a strong missionary presence during the past five years, some of these practices have been readopted (albeit in a modified form).

Since shamanism was perceived by missionaries as witchcraft, its eradication was central to colonial activities throughout the Amazon. According to Trio elders, missionaries attempted to divorce shamanic beliefs and rituals from medicinal plant use, as the latter was considered compatible with Christian faith and thus acceptable (although not strongly endorsed). The use of tobacco, rattles, and chants in Trio healing ceremonies, a hallmark of most Carib shamanism, disappeared from practice. As a requisite for baptism into the faith, elder shamans (*piai*) were asked by early missionaries to toss their rattles, many of which had been handed down from shaman to apprentice over generations, into the river.

Current work by the Amazon Conservation Team attests to strong undercurrents of shamanistic beliefs, particularly in the smaller villages such as Tëpu. The *maraka* (shamanic rattle) and secular chants to invoke the shaman's spirit-helpers sometimes accompany the use of medicinal plants in traditional medicine clinics for the treatment of certain difficult cases. Most remarkable, however, are the strong shamanic beliefs that exist among

some of the younger Trio born in the missionary settlements well after sustained contact.

Description of Suriname's Indigenous Communities

The village of Kwamalasamutu (Kwamala) was the primary site for the case study. This remote community of 1074 people is located deep in southwest Suriname close to the Brazilian border, and is only accessible by means of charter flights. The population is almost 100 percent Amerindian, most from the Trio tribe. There are also members of the Sikiani, Wayana, and Waiwais tribes living in Kwamalasamutu. The small variations in customs and language among these groups are most readily apparent in the different housing styles in the village.

Kwamalasamutu is administered by a blended political structure that reflects both traditional and colonial influences. Major families are represented by a "Captain" or chief. The Trio tribe elects a "Granman" or grand chief for life. The Granman in Kwamalasamutu is also the paramount chief over all Trios in southern Suriname. While the Surinamese government recognizes the Granmans and Captains as the political authority in the village, one villager serves as the government's representative for public services.

The economy is almost entirely subsistence-based. Women make daily trips to family plots to harvest cassava, while men make hunting and fishing trips. These are the most important activities in the village. Clearing of land for new plots is done by the "slash and burn" method and is part of the Kwamalasamutu's agricultural cycle.

The village has created a foundation through which communally derived financial resources are channeled (e.g., monetary payments for ecotourism and the sale of Brazil nuts). Individuals also sell songbirds, snakes, monkeys and other exotic animals to national and international collectors, often for substantial sums. Wage labor is undertaken by only a small number of people. The Medical Mission health clinic employs up to six people; there are two to five government employees, including a school teacher and an airfield supervisor; and the Granman and Captains receive

stipends from the Surinamese government. The traditional medicine clinic provides minimal wages to 22 people.

The infrastructure of the village is limited. The government office, the church and the school maintain a few electricity generators and a few houses have solar power panels provided through a government scheme. Well water is supplied through a generator-driven pumping system. However, the system is often not operating so that most households obtain their water by carrying it in pails from the river. People bathe themselves in the river and other streams. A few homes have outhouses, but most people lack this convenience. The local school provides basic education up to the fifth grade and few students have the opportunity to advance beyond that level.

Houses are built from local materials and most have thatched roofs (a small number have corrugated metal roofs). Many houses have a room above ground level that is built on stilts; however, most people sleep, cook and socialize in open-walled structures. Hammocks are strung from poles inside the houses for sleeping, often in the open under a thatched roof.

The village is surrounded by garden plots and a myriad of trails heading off to hunting and fishing locations as well as to other villages. It is not uncommon for villagers to travel on foot or in paddled dugout canoes for days or weeks (or even months) to reach other villages. With the exception of a few larger canoes with small outboard motors, there are no other powered vehicles in the village. Although there is no television, many inhabitants have small stereos, and popular music is often heard throughout the community.

Case Study

The first case study was in the southern area of Suriname, mainly in the village of Kwamalasamutu, which is located in the interior Amazon, a two-hour flight from the capital city of Paramaribo. As in other villages in the region, there are two clinics operating in this community. One provides western-style medical care and is run by the NGO Medical Mission under government funding. The other clinic provides traditional indige-

nous medicine and is operated by elder tribal shamans with financing by the Amazon Conservation Team (ACT), a US-based NGO. The traditional clinic Katamüimë Ēpipakoro, which has been in operation for four years, has cared for over 600 patients and logged several thousand patient-visits per year. This traditional clinic is located adjacent to the government-funded health outpost and is large enough for several healers. In order to promote and facilitate the intergenerational transmission and preservation of healers' skills, medicines and rituals, the traditional clinic has sufficient space to accommodate apprentices. In addition to shadowing the shaman to whom they are apprenticed, they are also afforded opportunities for increased responsibility. Patient visits to the traditional medicine clinics are entirely elective. A traditional clinic visited in the village of Pëlele Tëpu has the same characteristics.

Indigenous Health Care Workshops: Shamans, Medical Mission health workers and physicians, and ACT members lead workshops to raise awareness among primary care practitioners about traditional health practices, important medicinal plants, and indigenous concepts of health and illness. The workshops also educate traditional healers about basic primary care issues and preventive health practices. As a result, both the primary care workers and the shamans have altered their practice. Depending on the diagnosis and type of treatment required, referrals are routinely made between the two clinics.

Shamans and Apprentices Program: This aspect of the program aims at preventing the disappearance of traditional knowledge by encouraging young apprentices to learn from the elder shamans and to preserve the knowledge of medicines from the Amazon rainforest. A recent extension of this initiative, the Novices Program, is geared toward children and adolescents and is coordinated with their general education. Elder apprentices teach the youth about important medicinal plants in the classroom and lead regular gathering trips to the forest with elder shamans.

Ethnomedicine Research Initiative: Apprentices are trained to complete forms to document patient conditions and the treatments followed in each case at the traditional medicine clinics. Voucher

specimens of medicinal plants used in the clinics are obtained for taxonomic purposes. A team of ACT-affiliated researchers is also investigating Trio ethnoecology using plot studies in Kwamalasamutu to quantify botanical diversity and ethno-botanical knowledge.

The Northeast Amazon Ethnomedicine Program was recognized by UNESCO/Nuffic as a 2002 Best Practice for Indigenous Knowledge, and was cited by independent expert reviewers as an extremely impressive example of integration between the two systems of health. The selection of this program as a winner of the 2003 World Bank Development Marketplace Award provided the opportunity to extend the project to two additional villages of southern Suriname, the Saramaccan Maroon village of Kayana, and the Wayana Amerindian village of Apetina.

Cultural, Funding and Management Approaches to Intercultural Health Service Development

Collaboration of the Medical Mission with the Amazon Conservation Team in support of the creation of the traditional medicine clinics and their willingness to work with those clinics are evidence of a health system that has adapted to foster indigenous practices. The ACT traditional medicine clinics were developed in such a way that locally defined traditional healing methods are preserved, ensuring the continuation of the use of local plant and healer resources. In particular, the re-emergence of the role of the traditional healer appears to have helped validate cultural notions of illness and well-being. This enhances the cultural relevance of the approach and satisfies the cultural needs of the community. Although the medical practices of the Medical Mission are rooted in western paradigms, its services are not delivered in a manner that is antagonistic to indigenous concepts.

Health services in Suriname are provided in a coordinated and culturally appropriate manner that is highly supportive of the population served. The Medical Mission clinic trains and hires villagers as health practitioners, refers patients to the traditional clinic when appropriate, and participates in joint workshops with the traditional clinic to edu-

cate and raise awareness among primary care providers about traditional health practices, medicinal plants, and indigenous concepts of health and illness. For their part, traditional practitioners learn about basic western primary care issues and preventive health practices. The fact that shamans commonly refer clients to the Medical Mission clinic may be evidence of the appropriateness of this approach.

Approximately 75 percent of the budget of the Medical Mission comes from the government of Suriname, while the remainder is provided by churches and other private foundations and agencies. The traditional clinics are funded through ACT, which receives most of its funding from private international donations and foundations. There is no official government position with regards to possible state funding of the traditional health clinic. The government does not oppose the work of the shamans, but considering it does not provide funding for alternative health practitioners in Paramaribo, it is not likely to fund this type of initiative.

The Medical Mission appears to have a very efficient management model for providing western-style medical services to isolated areas. The fact that it engages in a positive working relationship with the traditional medicine clinics seems to further increase their efficiency. The traditional clinics also appear to work well as a model that simultaneously responds to community needs while being able to exchange knowledge and experiences across villages and generate external support.

Neither the Medical Mission nor ACT have indigenous representation in their management structures. The Medical Mission board is composed of representatives from the church foundations and the Surinamese government, while the ACT board includes prominent professionals in Paramaribo. Although local management in both clinics is drawn entirely from the community, there is no indigenous representation in the management teams of either organization. At the same time, both organizations demonstrate considerable respect for the political representatives of the villages where they work. Meetings with the senior local political representative (Granman) are rou-

tine, and ACT has included Kwamalasamutu's community as a full partner in many of its proposals and projects.

Perceptions of Opportunities and Benefits Provided by Intercultural Health Initiatives

In Kwamalasamutu, in addition to participating in joint workshops addressing diagnosis and management of common morbidities, shamans and Medical Mission health staff frequently visit each other's clinic for consultation on cases. There are also mutual referrals between clinics.

The Amazon Conservation Team and the Medical Mission enjoy the strong support of the Trio community and there is evidence that a relationship of trust has developed between the two organizations as well as between the organizations and the community. Although there is no provision for indigenous medicine in the current government funding of the Medical Mission, it was in the process of developing an indigenous medicine project to submit to various foundations when ACT offered to develop the current program. The Medical Mission and ACT have a memorandum of understanding assuring mutual support for the indigenous medicine program. They recently presented a successful joint project to the World Bank for additional funding to expand the program into Maroon villages.

Although it is not possible to provide an empirical measure in the context of this case study, there was some evidence that the Trio community has a stronger sense of cultural pride as a result of the support provided to sustain indigenous traditional knowledge. Pride in the status of traditional knowledge, and a sense of ownership and control over the indigenous component of the health care system are important long-term determinants of sustained positive relationships with the conventional health care system. Training has also resulted in accurate, culturally appropriate and precise translations of indigenous disease concepts and medico-anatomical terminology.

Perceptions of Constraints and Risks Associated with the Articulation of Indigenous and Western Health Systems

The evangelical churches in Suriname have had a negative impact on traditional practices and were partly responsible for the loss of indigenous medicine knowledge, particularly its ceremonial aspect. Currently, shamans feel free to use their knowledge of plant medicines, but are reticent to openly acknowledge that they may involve the spiritual world in their healing practices. However, this does not constrain the collaboration of the two systems for the treatment of physical problems. There does, however, seem to be a gap in the health service system related to mental health. While it can be assumed that the local church has taken on some of the responsibility for the spiritual well-being of the community, it appears that mental health problems remain untreated. In the context of modernization and westernization, mental health issues are likely to increase in prevalence and this constraint on the development of a joint system may become more significant over time.

Although ACT intends to eventually transfer financial responsibility for the clinic to the community, this transfer is a long ways off because the community has limited opportunity to generate financial resources. As mentioned earlier, the government of Suriname provides no funding to the Medical Mission for the support of indigenous medicine. In addition, there was no evidence of an effort to establish policy or legislation in this area. Indeed, government policy relevant to this issue would seem to be that recognition of differential needs or programs based on ethnicity is contrary to the general political philosophy in Suriname, which values equality across all ethnic groups.

It appears that the professional medical community in Suriname is not antagonistic to the integration of indigenous medicine, at least for the provision of health care to people in the interior. However, there is reluctance to accept intercultural health practices on a general basis. Professionals cited instances of alternative practitioners of indigenous and other folk medicines in Paramaribo and larger coastal towns who exploit the sick and desperate with promises of miraculous cures for

huge financial benefit. In the absence of any state interest in regulation of alternative practitioners, health professionals remain wary of becoming uniformly supportive of indigenous medicine.

Despite interest at the university level in establishing research programs designed to test the efficacy of indigenous medicines for the treatment of common problems such as leishmaniasis, state funding is not available to pursue this line of research. The issue of intellectual property rights and the fear of bioprospecting make these studies extremely problematic. Clinical trials in the field are also very difficult due to the remoteness of certain location, limited resources, difficulty with follow-up, small populations, and other factors.

For the general population living in and near the capital city, diagnosis and treatment is by law restricted to physicians. For Amerindian and Maroon villages, special legislated provisions allow for health assistants to diagnose and treat patients. There are no provisions by professional regulatory bodies that allow referral to traditional medicine practitioners. Although there seems to be a lack of an official government position, officials acknowledge the widespread use of traditional and alternative practices by much of Suriname's population. That being said, no regulatory framework allows this activity. This lack of regulation is in line with a general indifference and tolerance of such practices in the multicultural setting of the society.

There is no professional oversight of alternative and traditional practices for Suriname as a whole, but for the Amerindian and Maroon villages, ACT and the Medical Mission provide significant support to the traditional medicine clinic by providing training in basic hygiene and simple tests that can be assessed by medical clinic staff. Monitoring of conditions, treatments and numbers of visits is carried out on a regular basis.

The openness and sharing of information across the two clinics minimizes risks, in particular that of adverse effects of medications, both allopathic and traditional. The practice protocol that both clinics follow is that patients cannot be provided with parallel treatments for the same conditions. Only when one treatment is completed in one

clinic can they commence treatment in the other clinic if the condition has not resolved.

Impacts of the Intercultural Health System

In relation to delivery of care, health assistants in the Medical Mission clinics of Kwamalasamutu and Pëlele Tëpu are 100 percent Amerindian, which provides a degree of assurance that care is consistent with cultural nuances that only those who are part of the culture can provide. As regards to the visiting physician from Paramaribo, there was good evidence of clear efforts made to better understand particular cultural practices and accommodate them when possible. The involvement of community leadership and shamans in the development of the traditional medicine clinic explicitly modeled a type and mode of service delivery that was in line with Trio cultural practices. Further, a memorandum of understanding between the Medical Mission and the Amazon Conservation Team engaged these NGOs in an explicit interaction where Trio cultural practices are a central focus.

There was anecdotal, but plausible evidence of the cost-effectiveness of an intercultural approach in the Suriname case study. The most obvious example is the treatment of leishmaniasis, a parasitic skin illness that, if left untreated, can lead to serious and chronic skin ulcerations. Western medicine does not have an effective non-invasive treatment for this disease, whereas traditional medicine does. Both in Kwamalasamutu and Pëlele Tëpu, it is common practice for the Medical Mission clinics to refer patients to the traditional medicine clinics where leishmaniasis is successfully treated topically within a period of three weeks. This is a plausible example of cost-effectiveness, because: (i) the traditional medicine is topical and creates less risk of unforeseen iatrogenic complications for patients; (ii) the lack of the most rapid response treatment by conventional medicine would lead to more costly skin ulcer treatments (not to mention human suffering), and potentially the much more serious problem of sepsis (overwhelming systemic infection) from superinfection with bacterial organisms; and (iii) the Medical Mission health staff time is freed up to respond to more critical health conditions such as malaria. Other conditions frequently treated at the

traditional medicine clinic, such as colds, the flu, pain, cuts, burns, cough, and diarrhea are cheaper to treat because no purchased medication is required. The fact that the cost of the medications provided by the traditional healers is almost nil and that the therapeutic success for these minor ailments, according to all sources, is relatively high, speaks to cost-effectiveness. On the other hand, it would not be cost-effective if the failure of traditional treatments led to more costly complications due to lack of conventional medical treatment. The mutual referral system, information exchange, and coordination of treatment protocol between the clinics minimize the likelihood that this might take place.

The model of health delivery in Suriname, consisting of a western and a traditional clinic at the village level, and a referral system for more complex conditions to a hospital in Paramaribo, has no direct cost to patients. Thus, from a financial point of view there are no limitations to access.

Clinic attendance data suggest an extensive and comparable use of both clinics by villagers. In Kwamalasamutu, the average number of patients per month at the Medical Mission clinic was 24.5 (November 2000 to March 2003), whereas at the traditional medicine clinic it was 19.3 (July 2000 to March 2003). In Pëlele Tëpu, the number of patients and visits are almost identical across clinics, again suggesting that accessibility and use of both clinics appears to be quite comparable.

The only limitation due to costs or lack of other resources has to do with the limited patient support structure in Paramaribo for those who are either not admitted or released from the hospital, or for their families who travel with them. To minimize this, the Medical Mission tries to keep people in the hospital until a flight to the interior is available. Family support is a crucial element in the health care expectations of Amerindians, but the lack of money seriously limits the options that family members may have of traveling to Paramaribo with a sick relative.

Cultural barriers to health services appear to have been minimized in several ways. First, health assistants at the Medical Mission clinic are all Amerindians, and provide a more familiar cultural

experience to patients. Second, the existence of the traditional medicine clinic is in line with the Amerindian cultural traditions and background. Third, the clinics are an integral part of the everyday life of the villages, suggesting a degree of common cultural experience between health practitioners and patients. To some extent, the fly-in doctors could potentially constitute a cultural barrier for villagers. However, the degree of respect and awareness demonstrated towards Amerindian cultural practices and values suggests that the Medical Mission does a good job of selecting and training its physicians in ways that minimize this potential barrier.

Village leaders showed a significant degree of satisfaction with the western and traditional clinics, and particularly with the existence of a system where both options (western and traditional) exist for health care. The good working relationship between the two clinics was especially satisfactory in the eyes of local leaders.

Interviews did not suggest that people were more satisfied with one clinic over the other. The evidence instead suggested that both clinics played a clear and necessary role, and that possible overlaps were not a source of conflict. A particular source of satisfaction was that the clinics complemented each other, thus decreasing possible gaps in care. Evidence from clinic attendance data would appear to confirm this notion. Although clinic attendance is not a direct measure of satisfaction, it provides evidence of regular use of both clinics, suggesting a comparable degree of satisfaction. Another interesting indicator is that old and young, males and females, regularly attend both clinics.

Guatemala

Consisting primarily of mountainous forest highlands and jungle plains, Guatemala covers an area of 108,889 km². Guatemala is at the confluence of three tectonic plates, resulting in frequent earthquakes and volcanic eruptions. Major quakes struck in 1773, 1917, and 1976. The capital of Guatemala is Guatemala City, which has a population of two million people. The estimated total population of the country in 1999 was 12.5 mil-

lion, with an annual population growth rate of 2.7 percent.

An independent republic since 1847, over the years the country has been ruled by democratically elected presidents as well as numerous dictators. A U.S. backed coup in 1954 that overthrew the constitutional president, led to a process of heightened violence that culminated in the period that Guatemalans refer to as “La Violencia,” a bloody era of violence (1978-1985). It is estimated that 15,000 people were “disappeared” and more than 100,000 killed. Some one million refugees were forced to flee both within the country and abroad, mostly to Mexico. La Violencia was part of the official counterinsurgency strategy aimed at draining “the rural indigenous pond in order to kill the armed guerrilla fish” (McChesney, 1995).

The distribution of income and wealth in Guatemala remains highly skewed. The wealthiest 10 percent of the population receives almost one-half of all income and the top 20 percent receives two-thirds of all income. As a result, 75 percent of the population lives in poverty, and two-thirds of these live in extreme poverty. Both poverty and extreme poverty are higher in rural areas and among the indigenous population, 93 percent of whom were living in poverty and 91 percent in extreme poverty in 1989. By contrast, for the non-indigenous population the proportions were 66 percent and 45 percent, respectively. In 1994 the literacy rate was 71 percent in men and 57 percent in women, with an overall national rate of 64 percent. The birth rate was 37.3 per 1,000 population in 1995, and total fertility was 5.1 children per woman (6.2 in rural areas and 3.8 in the urban population). The fertility rate in the indigenous population remained steady between 1986 and 1995, whereas in the nonindigenous group it dropped from 5 children per woman in 1987 to 4.3 in 1995. In 1994 the underregistration of births was estimated at 3 percent.

Health Service Environment

A formal negotiation process got under way in 1994 following an agreement to reinstate the peace talks. The Peace Accord was signed in December of 1996 by representatives of the govern-

ment and the guerrilla forces. This new state of peace led to a thorough institutional modernization of the state with a view to substantially improving efficiency and management capacity, addressing the issue of public finances, and effectively implementing social programs that would support the processes of peace and economic development. Health policies come under the government's program for economic modernization, which includes reforms aimed at increasing government revenues, controlling the national debt, and raising expenditures in the social sectors. An important complement to these policies was the reforms in the allocation of funds to the municipalities. The national government transfers 8 percent of the national budget to the municipalities. Of this, at least 90 percent is allocated for programs in education, preventive health, infrastructure, and public services to improve quality of life.

The health sector is made up of public and private institutions, nongovernment organizations, and a large sector of traditional Mayan medicine, which is found mainly in rural areas among the indigenous population. At the national level, institutional coverage of the population is as follows: Ministry of Public Health and Social Assistance, 25 percent; Instituto Guatemalteco de Seguridad Social (IGSS), 17 percent; Military Health Service, 2.5 percent; nongovernment organizations, 4 percent; and the private sector, 10 percent. Less than 60 percent of the population has some form of health coverage, and this coverage has not increased substantially since 1990, when it was 54 percent. This was one of the reasons why the government decided to change the traditional care model by reforming the sector. A Comprehensive Health Care System (SIAS) was designed, which is now being implemented to provide basic health care to the entire population currently without access to health services. Existing resources will be used for this purpose within a context of community organization and participation that will generate and bring about changes in the health situation. The SIAS concept is based on the delivery of specific, simplified, and ongoing health services provided by volunteers with the support and supervision of institutional personnel. These community participants are expected to work closely with a health team that provides them with technical, logistic, and decision-making support and

whose members, unlike traditional health personnel, work in close contact with the community.

The expanded health services are directed toward the 58 percent of the population already covered by health services and are provided by institutional personnel who, in addition to the minimum services listed above, offer care for women of reproductive age, early detection of cancer, and family planning; care for infants and preschoolers under the age of five; emergency care and treatment of illnesses; and environmental protection, sanitation standards, and project development and management.

The government has also issued a new Health Code whose purpose is to ensure the viability and implementation of the changes that were ushered in by the reform. The new code incorporates innovative aspects, including the definition and concept itself of what is a "health sector." It also creates the National Health Council, an entity that advises the government and the Ministry of Public Health and Social Assistance on ways of regulating the development and infrastructure of health services with regard to the formation and utilization of human resources and the health care services network. The code specifically includes and gives priority to health promotion and protection.

In 1993, the Ministry of Public Health and Social Assistance had 19,385 employees and a network of 3,861 health establishments, including 35 hospitals, 220 health centers, 785 health posts under the Ministry of Health, 24 health posts under the Military Health Service, and 2,642 establishments, including state pharmacies, municipal drug dispensaries, and other. The private sector has some 2,000 establishments, covering only 10 percent of the population.

According to 1995 data, there are 12,725 hospital beds in the country as a whole, or 1.1 per 1,000 population. The IGSS has 24 hospitals, 4 of them specialized. IGSS coverage is limited at the national level, because it has health posts and first aid stations in only 9 departments and offices for consultation in 10. Its hospitals are located mainly in Guatemala City, but it has also opened hospitals in Escuintla and Suchitepéquez in recent years.

The health posts of the Ministry and the IGSS are staffed by auxiliary personnel. The Ministry's health centers have permanent medical staff but are open for only eight hours per day. The health posts and centers have very limited decision-making capacity and there is no effective referrals system in place. Public spending on health in 1995 was equivalent to 1.2 percent of the GDP. The percentage of the general government budget devoted to health in 1991–1994 came to 18.1 percent.

Epidemiological Context

Life expectancy at birth in 1995 was 64.7 years for men, 69.8 years for women, and 67.1 years for the population as a whole. In 1995 females represented 49.5 percent of the population and women of reproductive age, 22 percent. The Guatemalan population is very young: 45 percent are under 15 years of age and only 3 percent are older than 60. In 1995 the crude death rate was 7.4 per 1,000 population. During the period 1985–1995 infant mortality was 51 per 1,000 live births (neonatal mortality, 26 per 1,000; post-neonatal mortality, 25 per 1,000). In 1994 a total of 65,535 deaths were reported, for a crude death rate of 6.8 per 1,000 population. Of all deaths, 27.3 percent were in infants under 1 year old; 3.9 percent in children 1 to 4 years of age; 2.7 percent in the population aged 5 to 14; 21.8 percent among those aged 15 to 59; and 36 percent in the 60 and over bracket. The leading causes of death were pneumonia and influenza (16.5 percent), conditions arising in the perinatal period (13.8 percent), intestinal infectious diseases (8.9 percent), and nutritional deficiencies (5.7 percent). Infectious diseases, deficiency diseases, and conditions related to pregnancy and delivery accounted for about 45 percent of the deaths.

The latest year for which routine information is available is 1994, when maternal mortality was reported at 96 per 100,000. Underreporting is estimated at approximately 60 percent. The five leading causes of maternal mortality were complications of delivery (30 percent), retention of the placenta (14 percent), puerperal sepsis (11 percent), eclampsia (11 percent), and abortion (7 percent). The percentage of pregnant women who received prenatal care given by trained personnel

rose from 34 percent in 1992 to 54 percent in 1995, when 45 percent of all prenatal monitoring was done by physicians, 8 percent by nurses, and 26 percent by midwives. Among indigenous women and in rural areas, prenatal care was more frequently given by midwives and nurses. Physician care was most frequent among nonindigenous and urban women. In the country as a whole, 37.8 percent of all deliveries were attended by trained personnel (physicians, 34.1 percent; nurses, 3.7 percent). As with prenatal care, physician-attended deliveries were much more frequent in urban areas (60 percent of all deliveries) than in rural areas (18 percent). By contrast, midwives attended 53 percent of deliveries in rural areas and only 31 percent in urban areas.

The proportion of women who received at least one dose of tetanus toxoid during pregnancy was 55 percent in the country as a whole (49 percent among indigenous women and 60 percent among nonindigenous women). In the indigenous group only 9.6 percent of the women use any family planning method, versus 43.3 percent in the non-indigenous group.

Indigenous History and Cultural Context

Hunting and foraging groups spread into the area that is now Guatemala prior to 2500 B.C.E. After some time, some groups settled into farming villages whose subsistence was based on crops such as corn, beans, squash and chili peppers. The basic institutions of Mayan civilization developed prior to 100 C.E., and the society flourished from approximately 300 to 800 (Mayan classical period) concentrating around a network of cultural centers such as Tikal, Calakmul, Yaxchilan, Palenque, Caracol and Copan in the Peten and Uxumacinta in Guatemala, Mexico, Belize and western Honduras. The complex society included artisans, architects, merchants, warriors, priest astronomers, experts in medicine, mathematicians and farmers (who engaged in labor-intensive irrigation systems), all of whom contributed to a cycle of seasonal rituals and ceremonies. Major cities of this classical period were abandoned around 800 C.E., and the Mayan people dispersed into around 30 warring groups, scattered throughout Guatemala, Chiapas, and the Yucatan Peninsula, where there would be a revival of Mayan civiliza-

tion in the postclassical period in cities such as Chichen Itzá, Coba, Uxmal and Mayapan.

In Mayan mythology, gods provided protection to the people, including protection against illness. According to Mayan theology, the supreme-being or creator of the world was Hunab-kú, father of Itzamná who is known as the god of Mayan medicine and representative of the sun. The moon, identified as the goddess Ixchel, is the wife of Itzamná and protector of all expectant women.

Spanish explorers arrived in the Americas in the late 15th century. After conquering Mexico, Hernán Cortes commissioned Pedro de Alvarado to explore the areas to the south. In 1523 and 1524, Alvarado defeated and subjugated the Mayan groups of Guatemala. Within a decade of the Spaniards' arrival, approximately 750,000 indigenous people died as a result of brutal violence and diseases such as smallpox, malaria, measles, typhus, influenza and the common cold, to which they had no immunity.

During the colonial period, the Spanish instituted a system of forced labor called the "*encomienda*," through which colonists that had received royal grants over land or mines used indigenous labor. A racial hierarchy was established in Guatemala that held direct European descendents (*Criollos*) on top, those of mixed blood (*Ladinos*) somewhere in the middle, and the indigenous majority at the bottom.

Independence from Spain brought few rewards to Guatemala's rural indigenous population. The emerging class of wealthy ladinos gained increasing control over land and labor. Coffee became the nation's largest export, and a powerful elite of coffee growers with the support of the government forced Mayan communities to render communal lands. As land tenure patterns changed, indigenous villagers relocated to less productive highland areas and many peasants were compelled to migrate to coastal plantations in search of work.

Land ownership became increasingly concentrated until Guatemalan President Jacobo Arbenz initiated the Agrarian Reform Law. The 1952 law called for the expropriation of mostly idle lands from large plantation owners to be redistributed to

poor farmers. The reform benefited an estimated 100,000 families, and threatened the holdings of large landowners and powerful foreign companies, especially the North American-owned United Fruit Company. Under the guise of combating communism, the U.S. government ordered a CIA-orchestrated coup to oust Arbenz in 1954. The democratically elected president was replaced by a U.S.-backed general who annulled most expropriations, returning the land to its previous owners.

Land ownership was one of the most contentious components of the 1996 Peace Accords. The accords stressed the government's commitment to rural development and emphasized the state's duty to provide land to peasant farmers. Recognizing the historical social and economic exclusion of the indigenous population, the Accord on Indigenous People's Identity and Rights specifically mentions the importance of providing state lands to indigenous communities. The stipulations of the accords, however, have yet to be implemented, and Guatemala remains mired in inequality and poverty, the same ills that have beleaguered the nation since the Spanish conquest.

Guatemala is currently a multicultural and multilingual country with four major peoples living within its boundaries: Mayas, Garifunas, Xinkas and Ladinos. The last three are indigenous peoples who have their own cosmology, forms of organization and authority. Classified linguistically into more than 21 different groups, Indigenous peoples represent 43 percent of the country's population. Speakers of Quiché represent 29 percent of the total Indigenous population; Kakchiquel, 25 percent; Kekchí, 14 percent; Mam, 4 percent; Pocomchi, Pocomam, and Tzutuhil, 24 percent (all of them Mayan languages); and other languages, 4 percent. Approximately 32 percent of the indigenous population speaks only a Mayan language.

In 2002, a United Nations envoy indicated that although institutional discrimination against its indigenous people was not in Guatemala's laws, it still existed in its practices. Racism in Guatemala was commonplace in the attitudes of the authorities, the common prejudices associated with their traditional clothing and other aspects of their culture. A pressing problem for Guatemala's indige-

nous people was a lack of access to the country's judicial and financial systems.

Description of the Community/Region

San Juan de Comalapa is a municipality with 35,441 people, which includes a town center and 27 surrounding villages and hamlets. It is located 24 kms from the urban center of Chimaltenango (capital of the department) and 85 kms from Guatemala City. Comalapa's population consists almost entirely of Kaqchikel Mayas (95.2 percent). Townspeople rely heavily on small-scale maize agriculture for meeting subsistence needs, but many also grow vegetables and produce textiles for export. Tuesdays and Fridays are market days when villagers come to Comalapa with their fruits, vegetables and other goods, including clothing and wares. People usually walk from their villages or travel in heavily loaded buses or trucks. Although it is proximate to the tourist areas of Chichicastenago and lake Atitlan, it is not a tourist destination. Comalapa has only one hotel and one restaurant.

Case Study

This case study focuses on the role of "*comadronas*" in the health care system available to Mayans in Guatemala. *Comadronas* provide midwifery care to approximately 85 percent of pregnant mothers in the Mayan community. These women have played an important cultural and practical role in the health care system of Mayan communities for centuries. *Comadronas* are responsible for assisting with pregnancy and childbirth, and for providing spiritual guidance to mothers and families. Additionally, they administer spiritual and practical treatments to infants with cultural illnesses.

The best practice model in this instance is to link *comadronas* with the professional health system through the development of a training program that is intended to increase the quality of care provided by the women, and to provide them with the knowledge and skills necessary to know when to refer their clients to the professional health care system. The ultimate aim of this model is to extend coverage of the western medical system into the poorest and most remote Mayan villages.

Sixteen Comalapa *comadronas* recently joined with 65 *comadronas* from surrounding villages to form a Midwives Association. The Association receives support from the Kaslen Foundation, an NGO formed in 1985 to continue the development of a community health program that was originally established in Comalapa in 1973 in the aftermath of a major earthquake. Despite losing international funding in 1993, the Foundation continued to provide community health and development programs, including training for *comadronas*. Comalapa also has a Health Center staffed by two physicians (one administrator/clinician and one clinician who provides services to the health posts), one nurse, and four nurse auxiliaries who are responsible for local primary health care as well as supervising the nurse auxiliaries located in seven health posts across the region. Most of the nurses and auxiliaries are Mayan and can communicate with patients in the local Mayan language. The physician visits each health post for one day each month.

The nearest hospital is in Chimaltenango, which is located 30 kms away from Comalapa. The hospital has approximately 50 beds and five physicians to provide services to a district with a population of about 150,000 people. There is a private health system as well, with 15 private physicians located in Comalapa who provide services to a very small proportion of the population who can afford them. Although there are many Mayan physicians in Guatemala, all of the physicians in the Comalapa area are Ladino.

Training programs for *comadronas* have varied considerably over the past few years. Both the public health system and the Kaslen Foundation have initiated programs for these attendants at various times in the past few decades. The Health Center also introduced training initiatives for *comadronas* in 2002. The women participate in a one-week program in prenatal care and the recognition of complications, at the end of which they receive a certificate that allows them to register births. Since registration of births is important for families, this permit acts as a license to provide midwifery services. *Comadronas* who do not complete the training are technically unlicensed to provide care, although this does not seem to limit the practice of unlicensed *comadronas*.

Cultural, Funding and Management Approaches to Intercultural Health Service Development

Mayan leaders in Comalapa asserted that intercultural approaches should be based on respect for both systems and should not be seen as a policy for assimilation. In the Comalapa region, both systems exist in parallel, with some limited interaction that is fraught with tensions and barriers. Spirituality is the integrator of cultural and conceptual processes of Mayan concepts of health and illness and is a fundamental component of the way Mayan therapists are selected. The *comadronas* have a particularly important role to play in this cosmological approach to health and illness. However, even though they are considered part of the informal Mayan health care system, there was little evidence that these Mayan beliefs and practices were integrated into the formal primary health care despite the *comadronas* being fully accepted as integral to the system. A full integration of the *comadronas* would increase the cultural relevance of the system and would go a long way to meet cultural needs of Mayan woman and families.

State funding for health in Guatemala is in general very limited. Three health services systems exist in rural Guatemala: the unacknowledged Mayan medicine system that is widely distributed and used, the publicly funded western health care system, and the private practice system. *Comadronas* are paid a relatively small sum out of pocket in cash or goods by their clients. The western public system is minimally funded by the state but users are required to purchase many medical items. The only indirect government funding of the indigenous system is the training provided to *comadronas* through the health center. In the private system, physicians and clinics work independently, although under state regulations, and rely exclusively on user payments and private insurance. There is a fourth option promoted by the Kaslen Foundation, an indigenous NGO in Comalapa that operates some health initiatives from the site of a former internationally funded nonprofit hospital. Kaslen operates a health center with a combination of fee-for-service funding and national and international donor support. They are trying to reopen the hospital, and would like to be funded by

the state to provide care under contract. However, they understand that this option is highly unlikely to materialize given the current state of government funding in Guatemala.

In the case of Comalapa, there is no clear evidence of the public health system adjusting to indigenous people's parameters and cultural concepts of health and illness. There is an acceptance of the fact that the *comadronas* are responsible for the vast majority of deliveries in the rural areas, but only minor accommodations are made to interact with them in a manner that respects their knowledge, experience, and leadership role in communities.

The organization of the Comalapa midwives occurred in the context of a Mayan community committed to building a self-governing civil society. The president of this association is also a representative in the Assembly of Leaders that has overall responsibility for the community development. *Comadronas* are widely respected in the communities. All of our informants stated that people have considerable trust in their abilities.

Several informants argued that it is not appropriate to talk about a unique health care system in Guatemala. Although official policy suggests that Mayan therapists are supported as extensions of the professional health care system, Mayan leaders suggested that this policy is racist and would lead to assimilation if implemented. An alternative model proposed by Mayan leaders is for the implementation of two systems that would work together. Mayan leaders proposed that the *comadronas* should be part of the Mayan health care system, which should also include other therapists and should be rooted in Mayan cosmology and foundational cultural beliefs about health.

Perceptions of Opportunities and Benefits Provided by Intercultural Health Initiatives

In the Comalapa health center, monthly meetings of *comadronas* and physicians provide an opportunity for them to learn about each other's practices and values. Given the concern surrounding maternal mortality and neonatal sepsis, a context of mutual trust and respect would favor a timely referral to hospitals and/or better in-situ support to

the *comadronas*. Nonetheless, the evidence did not show that this opportunity is being taken advantage of, as expected.

Guatemala's Ministry of Health is working in three-pronged approaches. The first approach is to identify those areas with the highest maternal mortality and establish culturally appropriate second level services available on a 24-hour basis, 365 days a year. The second approach is the implementation of a dialogue with municipal authorities and local groups to support the ministry in developing and implementing these second level services. The third approach is to define a new role for the *comadronas* that will incorporate (not assimilate) them into the primary health care system that already exists. In the last four years the national program for training *comadronas* (first level services) had been essentially abandoned in favor of the development of a strategy to have babies delivered by individuals with a nursing background. However, the latter initiative has essentially failed because of the lack of acceptance by the Mayan peoples. The government's plan to implement the "Extension of Coverage" program beginning in the ten areas with highest maternal mortality may be an opportunity, but the Mayan community considers it a risk to the continued integrity of the Mayan cosmivision and the role played by *comadronas*.

In Comalapa, traditional indigenous *comadronas* play a key and extensive role in deliveries and primary obstetric care. The articulation of this indigenous system with the western health care system would make it possible to establish appropriate and timely referrals when higher complexity medical care is required. Simultaneously, it can help the public system to learn Mayan cultural norms and values and adjust its institutions to reduce cultural barriers. Mayan women's reluctance to go to the hospital for complicated or high-risk deliveries is a serious issue that requires that these changes be made.

Perceptions of Constraints and Risks Associated with the Articulation of Indigenous and Western Health Systems

Comadronas require a registration card in order to refer their clients to the hospital or to register

births. Without this card, these women experience considerable difficulty with referrals, and their ability to attract a client base can be compromised. This may reduce the number of births attended monthly and potentially result in increased risk to clients due to lack of consistent practice experience. In order to keep their cards active, *comadronas* are expected to attend a half day of training per month. However, many reported that when they went to get their training, it was not available, or that it was not culturally appropriate. The emphasis seemed to be on western biomedical training, with limited mention of the cultural context for midwifery practice in the Mayan community. The women also mentioned that most of the physicians who provided the training could not speak the Mayan language.

Another constraint reported by the *comadronas* was that they were reluctant to refer their patients to the hospital in Chimaltenango. They indicated that quite often physicians and other staff humiliate them and do not respect their culture or midwifery skills, and that both they and their patients are treated poorly. Both Mayan leaders and western health professionals suggested that discrimination against *comadronas* in the health care system is a major factor inhibiting referrals and relationships between the systems. The explanation for this behavior is that physicians and other health staff are poorly trained in terms of cultural sensitivity and have profoundly racist attitudes towards the Mayan community.

Comadronas practice quite independent of the professional health systems and there are rare opportunities for nurses or physicians to observe their practice. This not only breeds distrust among nurses and physicians, but also inhibits the opportunity for traditional in-service training.

Constraint in intercultural practices has increased due to the role of evangelical churches in many Mayan communities. These churches actively attempt to suppress Mayan traditional practices, particularly in relation to the use of plant medicines and ceremonies. Each Mayan community may have three or four evangelical churches that not only attempt to suppress cultural practices, but also divide the community and inhibit cooperative development.

A Mayan healer argued that the focus on western training for *comadronas* not only risks assimilation of the *comadrona* into the western health care system, but also ignores the important role they play as community leaders and in the socialization of children. He also suggested that training just for the sake of legal certification was missing the entire point of trying to rebuild a Mayan health system based on indigenous cosmology. Several informants made the point that training *comadronas* solely in biomedical techniques actually “disempowers” them in the context of their own communities.

To some extent, Guatemalan health authorities are constrained by international agencies and policies that see the *comadronas* training program as a short-term solution that will eventually disappear once full western health services are available to the entire population. Mayan leaders stated that Guatemalan society rejected the *comadronas* in four ways: as women, as poor, as Mayan, and as non-western healthcare workers. In this context, achieving a successful intercultural practice is virtually impossible. Supporting the *comadronas*’ practices was at the core of the indigenous movement in Guatemala. Without an overall improvement in the relationship of the Maya to the state, leaders argued that it would be difficult to implement successful intercultural policies.

One of the most significant constraints that seem to underlie developing appropriate services in Guatemala is the lack of financial resources for the health system, and resultant reliance on outside bodies. Public investment in the health system just reaches 1 percent of the GDP, which is currently preferentially distributed in metropolitan areas, particularly for hospitals. An average 50 percent of rural and indigenous populations do not have access to basic health services. *Comadronas* represent a significant contribution to the health care system in that they provide care for 60 percent of births nationally, and in some indigenous majority regions such as northeastern Guatemala, the share reaches 80 percent or more. Municipalities do not fund direct health services, although in Comalapa they have been trying to work in cooperation with the government Health Center that is responsible for public health inspections.

The Kaslen Foundation provides funding for health promoters, medicinal plant projects, *comadrona* training and support for a local coffee business, suggesting a community development approach. In contrast, the health center funded by the state, focuses on management and monitoring of conventional health services. Because of the Foundation’s private funding it does not believe it should have to fall under the jurisdiction of the government. At the same time, the Health Center takes the position that any health related personnel should be under their organizational supervision. It insists that the *comadronas* should do their prenatal consultation at the center, and that they would like to observe and monitor their work. The Health Center has made it clear that the work must remain voluntary because the government has no funds to pay the *comadronas*.

Another constraint in health service management is the lack of coordination between the Health Center and Kaslen Foundation staff (both of whom provide training to *comadronas*). The major issue is that the government wants to coordinate the work of the *comadronas* and provide conventional training, but has insufficient resources. In the absence of this capacity, the Foundation has stepped in to provide more comprehensive training, including management of emergency situations. There are poor relationships between the two structures, both historically and ideologically. The Ministry of Health views *comadronas* mostly from the perspective of an “extension of coverage” of conventional programs intended to reduce maternal mortality and thus meet international funding requirements, rather than the extended leadership “grandmother” role they play in the community. The Foundation, on the other hand, recognized this cultural role and works within a framework of local empowerment and economic development.

Traditional Mayan medicine is practiced throughout Guatemala. It is clear that *comadronas* are the major provider of obstetrical services, but there is little or no respect for their expertise within the general health system. It is still unclear whether there is actual legislation or whether the service falls simply within a popular practice model in Guatemala. There does not seem to be a scope of practice or practice regulations and guidelines

other than minimal training and licensure requirements.

Particularly problematic is the racism experienced at the hospital in Chimaltenango, a situation that is apparently generalized throughout Guatemala. The negative treatment that *comadronas* and their patients experience at the hands of the public health care system, particularly in hospitals, has an impact on accessibility and very possibly on maternal mortality as well. Although the *comadronas* are blamed for not making early referrals, the patient's reluctance to go to the hospital plays an important role. In addition to providing appropriate training for *comadronas*, it is crucial to eliminate or at least reduce racist attitudes in the hospital in order to reducing risk.

The loss of the overall integrity of the Mayan approach to healthcare service is also a risk, particularly if the health system's focus on the *comadronas* is to subsume them under the extension of conventional care services. *Comadronas* also provide care beyond obstetrics, particularly with treating some children's disorders and culturally defined diseases such as "susto" and evil eye. Training sessions by physicians who do not know the culture or speak the Mayan language, plus the questionable appropriateness of male physicians being involved in deliveries, may be undermining factors relevant to the cultural significance of the *comadronas'* role.

Impacts of the Intercultural Health System

Out of necessity, the Government of Guatemala accepts the practice of *comadronas* as essential to extending primary healthcare services to the countryside, but has provided only minimal support through limited training opportunities and some basic equipment. It has had a limited effect in influencing even the public hospitals to accommodate the *comadronas'* practice needs. Government funded health providers at both the local and hospital levels have undermined the *comadronas'* work, portraying it as inferior to conventional medicine and in need of control and monitoring by the conventional system. More recent planning activities by the Ministry of Health are working toward increasing support without assimilation but as noted above, there are risks for further re-

ducing the important community leadership role of the *comadrona*.

Guatemala is working to improve policies to ensure respect of indigenous culture and practices, although the results appear to be variable and difficult to achieve. The Ministry of Culture works with other ministries to train government personnel in cultural sensitivity and respect for indigenous culture. This is not always successful, but there is increasing Mayan staff representation in other departments.

In Comalapa, the suggested fee per delivery for *comadronas* is 100 quetzales (approximately US\$15), but they are usually paid between 20 and 30 quetzales. Families sometimes give them gifts of clothing and food. This compares to approximately 1,500 quetzales for a delivery by a private physician, and as much as 4,000 quetzales for a delivery by a physician in Chimaltenango.

There were nearly 11,000 births in the municipality of Chimaltenango in 2003. *Comadronas* attended 80 percent of those births, and only 4 percent took place someplace other than the client's home. Only 631 births occurred in private clinics, with the remainder occurring in the municipal hospital. If the above fees are applicable for the municipality of Chimaltenango, the cost for *comadronas* to provide 80 percent of deliveries ranges between US\$26,400 (at 20 quetzales per delivery) to US\$36,900 (at 30 quetzales per delivery). The 20 percent of deliveries that are assisted by a physician result in a cost for the municipality that ranges from US\$495,000 (at 1,500 quetzales per delivery) to US\$1,320,000 (at 4,000 quetzales per delivery). For routine deliveries, the cost is clearly less when care is provided by *comadronas*. As mentioned, in addition to obstetrical care, *comadronas* also play an important role in treating spiritual illnesses. *Susto*, a common Mayan cultural illness involves the loss of spirit, and is caused by fright or other traumatic experience. *Comadronas* are often asked to perform a ceremony known as "the call," in order to return the spirit to the sick person. The prevalence of *susto* in the Mayan communities was exacerbated during the era of *La Violencia*.

Many agencies in Guatemala are working on mental health issues that affect the Mayan population as a result of the trauma of *La Violencia*, and the *comadronas* play a role in this process. Representatives of other organizations working in this area argue that it is very important to use traditional psychology when treating the survivors of *La Violencia* to avoid further victimizing survivors.

National pilot projects in intercultural health sponsored by the Ministry of Health have limited coverage. They are restricted to the areas where maternal mortality is highest (presumably as part of efforts to meet the Millennium Development Goals as required by international financial agencies). The Ministry expects NGOs to develop initiatives to complement its own initiatives in order to maximize the use of resources and avoid duplication. No outcome data exists.

In rural areas of Guatemala, the Mayan community lives quite isolated in widely distributed locations. In some instances, the nearest midwife might be several kilometers away, and the family is required to walk to the midwives house and then walk back to the delivery site with the midwife. Nonetheless, this is the common mode of access to traditional midwives. Access to western health care facilities is much more difficult and complex. Distance and lack of transportation are tangible barriers to access hospital services. Yet, cultural barriers appear to play a more profound role in deterring women from availing themselves of the western healthcare system for prenatal, delivery and postnatal care or for labor and delivery complications. The evidence was quite overwhelming in this regard, suggesting that the public sector needs to re-examine its practices to encourage and facilitate access.

Chile

Health Service Environment

The Constitution of 1980 considers health a basic human right and states that it is the government's duty to ensure that all citizens are able to exercise their right to protect their health and to live in an unpolluted environment. The Constitution recognizes a person's right to choose whether to receive

public or private health care. The function of the Ministry of Health is to ensure free and equal access to services for the promotion, protection, and recuperation of health as well as rehabilitation services following illness. The Ministry is also responsible for coordinating, overseeing, and, where appropriate, executing activities in these areas.

The population is covered by 28 regional health services, which are autonomous in terms of action, financing, and budgeting. These services form the core of the Chilean health system. Responsibility for primary healthcare is delegated to the municipalities, which coordinate with regional services. The regional as well as municipal health services have financial autonomy and are financed by either the Fondo Nacional de Salud (FONASA) or the Instituciones de Salud Previsional (ISAPRE) system, to whom they sell services. One of the fundamental aspects of health reform is the separation of institutional functions. The Ministry of Health, which was historically the provider of basic health services, has adopted a governing and regulatory role; FONASA performs insurance and financial functions; and the regional health entities are responsible for providing services.

In the private sector, health insurance is provided by the 36 ISAPREs (preventive health agencies) operating throughout the country. Some ISAPREs have their own outpatient primary care services, but they generally do not provide hospital care. Of the 35.3 percent of the population that receives care in the private sector, 23.7 percent are covered by ISAPREs, 8 percent pays out-of-pocket for their healthcare expenses, 2.7 percent are covered by the Armed Forces healthcare system, and 0.9 percent by other systems.

The primary care system that was transferred to the municipalities in the 1980s consists of four basic types of facilities: rural medical stations, rural health posts, rural health centers, and urban health centers. The rural medical stations consist of buildings that are used as temporary sites for periodic visits by medical teams. Rural health posts, staffed with resident health auxiliaries, provide health promotion and protection services to catchment areas of approximately 1,000 persons.

Rural health centers, located in communities of between 2,000 and 5,000 persons, offer round-the-clock nursing and medical care for general health problems of limited complexity. Permanent professional and auxiliary staff operate these facilities. Urban health centers provide ambulatory care for general health problems. These facilities have fixed hours, generally providing care eight to nine hours daily, and the composition of their staff varies with the size of the locality. There are a total of 1,214 rural medical stations, 1,040 health posts, and 345 health centers distributed across the country. With regard to water and sewage supply, 98 percent of the urban population and 67.3 percent of the rural population have access to safe drinking water, and the coverage of sewerage systems is 84.7 percent in urban areas.

Secondary and tertiary care is provided in hospitals and outpatient departments. While primary care facilities were constructed in recent decades according to a Ministry of Health master plan, the current hospital network consists primarily of diverse hospitals inherited from religious and welfare institutions. The ministry of Health has a unit called *Programa de Salud y Pueblos Indígenas* that deals with health issues as they relate to indigenous populations. Its goals are to improve the health and natural environment of indigenous people by involving them in the development of strategies that incorporate their unique cultural, linguistic, and socioeconomic characteristics and needs.

Total spending on health in 1997 was estimated at US\$3.6 million, of which the public sector accounted for US\$2 million. As a share of GDP, health spending was estimated at 5 percent in 1997, of which 2.1 percent was private. The public health budget in 1997 was funded by fiscal revenues (48 percent), worker contributions (33 percent), other income (9 percent), operating income (8 percent), and borrowing (2 percent). Of the public resources for health, 10.2 percent came from municipal fiscal revenues.

Epidemiological Context

The mortality rate in 1995 was 5.5 per 1,000 population. Mortality among children aged 1 to 4 years was 0.6 per 1,000 population and maternal

mortality was 0.3 per 10,000 live births. The leading causes of death in 1995 were diseases of the circulatory system, with an age specific mortality rate of 149.5 per 100,000 population, representing 27.8 percent of all deaths; malignant tumors, 115.7 per 100,000 and 20.7 percent of deaths; injuries and poisoning, 63.6 per 100,000 and 11.8 percent of deaths; diseases of the respiratory system, 61.2 per 100,000 and 11.4 percent of all deaths. Life expectancy at birth in 1996 was 78.3 years for women, 72.3 for men, for a population average of 75.2 years.

Infant mortality has shown a marked decline as a result of the sharp reduction in birth rates and high rates of prenatal and professional care at childbirth. In 1995, trained birth attendants assisted 99.5 percent of births and the infant mortality rate was estimated at 11.1 per 1,000 live births. The neonatal mortality rate was 6.1 per 1,000 live births in 1995, the late infant mortality rate was 5 per 1,000, and the early neonatal rate was 4.5 per 1,000.

Available epidemiological data show that communities with the largest concentrations of indigenous populations have less favorable health indicators than the rest of the country. The infant mortality rate in the period 1988–1992 for the different indigenous groups also shows a relatively large variance: 57 per 1,000 live births among the Atacameños, 40 per 1,000 live births among the Aymará; 32 per 1,000 among the Rapa Nui; and 34 per 1,000 among the Mapuche. The health conditions of the indigenous population appears to have deteriorated more in urban than in rural areas. At the end of the 1980s infant mortality among indigenous peoples was double that of the overall population, maternal mortality was estimated at 7 times higher, and life expectancy at birth was 10 years lower. In terms of birth rates, the national average was 2.7 per 1,000 population in 1992, whereas among rural Mapuche it was 4 per 1,000.

Indigenous History and Cultural Context

According to the 2002 census, 4.6 percent of the Chilean population is indigenous, totaling 692,192 people. There are eight indigenous peoples living in Chile: Mapuche, Aymará, Atacameño,

Quechua, Rapa Nui, Alacalufe, Colla, and Yamana. The Mapuche people represent 83.5 percent of the total indigenous population. Thirty-four percent of the Mapuche population resides in the Araucanía region, and most of the remaining (76 percent) live in urban areas outside of this region. The Mapuche people represent 50 percent of the inhabitants of rural Araucania. A 1996 national survey indicated that 35.6 percent of the indigenous population lives in poverty, compared to 22.7 percent of the general population. The Mapuche of the Araucania region are mostly subsistence farmers tending small plots of land.

The Mapuche peoples were the inhabitants of the “Mapuche Nation”, whose borders were defined in the Treaty of Quillín (in the year 1641) with the Spaniards. By the middle of the nineteenth century, the Chilean state started to exert its sovereignty over the Mapuche territory, known as Araucanía. The new republic progressively increased its territorial conquests of indigenous areas through military means. A treaty was signed in 1869, but by 1885 Chile achieved the final conquest of indigenous territory, what Chile’s official history refers to as “the pacification of the Araucanía.”

During the presidency of Salvador Allende, the Chilean Government promulgated legislation favorable to indigenous people that foresaw territorial repossession and cultural revival. These laws were left without effect under the dictatorship of Augusto Pinochet following the overthrow of President Allende. In fact, the military regime promoted the further confiscation of indigenous lands. The return to democracy in 1989 initiated a new stage in the relationship between the indigenous people and the Government of Chile. President Aylwin signed the Treaty Nueva Imperial, a precursor to what later became Indigenous Law 19.253, enacted in 1993. The aim of this law is the protection, promotion, and development of indigenous peoples. The government created the Corporación Nacional de Desarrollo Indígena (CONADI), which functions as a collegiate body that addresses indigenous policies and oversees compliance with the requirements of the Indigenous Law.

Loss of territory brought about extensive economic and social changes for the Mapuches. These changes resulted in massive migrations from rural areas to urban centers. Today, a majority of Mapuche live in Chile’s larger cities.

Until recently, traditional indigenous medicine had been mostly ignored or prohibited. The Mapuche view of health and illness is related to notions of harmony. A perturbation in the harmony or balance is the cause for illnesses (*ku-tran*), which are categorized into two major types: Mapuche illnesses and *winka* or nonindigenous illnesses. *Winka* illnesses are determined by cultural phenomena or powers and are divided in three categories: *re ku-tran* or illnesses caused by nature, *weda ku-tran* or illnesses caused by supernatural influences, and *wenu ku-tran* or supernatural illnesses caused by spirits. Mapuche illnesses must be treated according to Mapuche medicine, whereas *winka* illnesses, belonging to the western world, must be treated in the western ways.

The traditional Mapuche healers are known as the *machi*, and are mostly female. It is said that a *machi* is chosen by “Chaw Ngenechen” and called by dreams or visions when she is relatively young. A new *machi* inherits the spirit of an ancestor through maternal lineage, commonly from a grandmother that has passed away. After having experienced the dream or vision, there is an acknowledgement of the invocation that occurs through an illness of the future healer, and that must be cured by a *machi*. If this invocation is not acknowledged, this individual will remain sick her entire life. Once the future *machi* accepts the call, she must then find an elder *machi* that will help train her. This training is a long and expensive process. The last ritual before becoming a *machi* is the building in front of her house of a *rewe* or altar made of canes and forming a ladder and the planting of sacred plants. Once established, a *machi* treats patients at a small health center that the community usually builds beside her home. *machis* are usually paid by her patients in cash or goods according to their ability and depending on the seriousness of the illness and the effectiveness of the cure. This compensation system is consistent with traditional Mapuche norms of economic reciprocity in social relationships.

Although the *machi* is the main traditional healer, there are other important types of healers, such as the *lawentuchefe* (knowledgeable in natural remedies and herbs), the *ngütamchefe* (bonesetter), and the *püñenelchefe* (midwife).

Description of the Community/Region

The city of Temuco, where the Mapuche pharmacy and traditional urban clinic are located, is located in the Araucanía region (southern Chile), 670 km south of Santiago, with a population of some 300,000. Temuco is considered the capital of the Mapuche, and has the highest percentage of people of Mapuche ancestry. The city and its surrounding areas are also the center of political mobilizations by Mapuche organizations and individuals who are trying to recover lands that they feel were illegally taken away from them. The rural Makewe hospital is situated in Makewe-Pelale, a historical Mapuche territory 25 km south of Temuco, in the municipalities of Padre Las Casas and Freire. This territory includes 80 Mapuche communities, and is home to a total of approximately 10,000 persons. The vast majority are the people living in these communities are small-scale farmers, cultivating wheat, vegetables, and lupines for export. The average distribution of land in the area is of 1.5 hectares per capita. There is another health care center in the Boroa-Filulawen area, which comprises 55 communities in the municipality of Nueva Imperial, located 45 kms from Temuco. The demographics and living conditions in the area are similar to those in Makewe-Pelale.

Case Study

This case study, which was conducted at several health facilities in Temuco and nearby areas, describes several initiatives undertaken by the Mapuche indigenous community. Although each initiative is distinct and strongly associated with a particular community, they are all part of a larger vision shared by Mapuche leaders to recover the power of their medicine and to restore self-governance to their communities. The intercultural program focuses primarily on building a system where the power of traditional medicine embodied in the *machi* (traditional healer) is offered as an equal and complementary alternative to

western medicine. This vision is strongly embedded in a context of self-determination and the social, political, and economic development of Mapuche communities.

The first initiative undertaken in 1998 was the development of the Makewe Hospital intercultural program. The Makewe Hospital was built in 1895, and run by the Anglican mission until 1998. When the Mission experienced financial setbacks in the mid-1990s, there occurred a struggle for control of the hospital between an alliance made up of the municipality, local evangelical churches and right-wing politicians, on one side, and a group of indigenous leaders, on the other. The Anglican Mission sold the land and hospital to the state government, which subsequently turned it over to a newly-created association of Mapuche leaders. This association is accountable to a Council of Mapuche Community Presidents from the surrounding Makewe region.

The Makewe Hospital provides a range of western health services under the direction of a western trained Mapuche medical director. The services include full-time physician services that are supported by nurses and nurse auxiliaries, midwives, visiting specialists, a dental clinic, and a social work department. An intercultural health worker is on staff and patients are seen by a Mapuche staff member and a western physician to ensure that if the patient has health needs that can only be met by traditional medicine, they are referred appropriately. The hospital has a medical ward with 35 beds, a polyclinic, and a waiting room with a reception area. The first step in developing the intercultural program was for the community to construct a *ruka* or traditional house, which serves as a meeting place for the communities and leaders who administer the hospital.

The Mapuche Health Association (Asociación Mapuche para la Salud Makewe-Pelale) is a not-for-profit corporation, and as such sells western health services to the government. Although linked to the work of the hospital, Mapuche medicine is not provided in it, and *machis* and other healers are not paid by the association. The rationale is that each medicine should be provided in its own context and that the *machis* are validated and supported by their own community, not

by the official entities like the association or the government. Nonetheless, the Makewe hospital provides linkages to the *machis*. For example, physicians work with the intercultural worker when they see a patient to help determine if she or he suffers from a Mapuche (spiritual or emotional) or *winka* illnesses (western-based, psychological).

The second intercultural initiative was the establishment of a health center in the community of Boroa, which was spearheaded by 25 Mapuche communities that did not have easy access to physicians and traditional services at the Makewe hospital. Their inspiration for the center stemmed from their awareness of the Makewe Hospital. The center follows an intercultural and integrative health model that complements and integrates biomedical medicine and Mapuche medicine. The Boroa-Filulawen healthcare center has a *machi* who is available at the clinic one day per week but treats patients at her home. Patients pay her directly for her services under a system that is similar to the one followed at Makewe Hospital. However, in this case the health center subsidizes the *machi* with a small direct payment. Patients who have been diagnosed by either a western physician or a *machi* have the choice of selecting herbal medicine instead of western medications, or as a complement to the latter.

A third component of the intercultural initiative is the traditional clinic and pharmacy (*Farmacia Homeopática Herbolaria Makewelawen*) in Temuco directed by the Makewe Hospital Association. The impetus for the establishment of this pharmacy came from the association, which determined that an important way to restore value to traditional medicine was to create a demand in the pharmaceutical markets. A pharmacy was first established in Temuco in 2003 and other satellite sites were opened later, one in Concepción and two in Santiago. These pharmacies, for which there is no state funding, operate entirely on a fee-for-service basis and are utilized by both Mapuche and the general population. A formally trained pharmacist, who subsequently studied Mapuche medicines, supervises the pharmacy in Temuco, which also has a well-equipped laboratory that produces medicines according to standard formulas. Two Mapuche herbalists work under the su-

pervision of the pharmacist, providing customers with information about the type and use of traditional medicines. Mapuche medicines produced at this local pharmacy are distributed to the satellite pharmacies. The Mapuche Health Association considers the pharmacy a community development initiative. Income from the sale of Mapuche medicine is used to support people in the villages who grow and collect the medicinal plants, as well as the staff in each of the pharmacies. Through the placement of advertisements, the pharmacy also supports the local bi-monthly Mapuche newspaper, *Mapuche Kimün*. Pharmacy profits also partially support other local Mapuche organizations.

Cultural, Funding and Management Approaches to Intercultural Health Service Development

The restoration of the role of the *machi* and other traditional Mapuche healers within an intercultural health experience is linked to the recovery of Mapuche cultural significance. The vision for intercultural health programs is but one component of a larger vision for Mapuche self-governance and autonomy as envisioned by Mapuche people in the region.

The Makewe Hospital provides a full range of western health services. It also facilitates culturally appropriate services by having an intercultural health worker on staff. By having patients assessed both by a Mapuche staff member and a western physician it assists the process of referring patients to a traditional healer if necessary. The construction of a *ruka* (traditional house) on hospital grounds that serves as meeting place for community people and leaders symbolizes the respect and value of traditional Mapuche practices.

The Chilean government funds intercultural initiatives both directly and indirectly. In this case, it has entered into a contract with Makewe Hospital for provision of western health care services. The hospital cannot directly use these funds for traditional practices, but does so indirectly using overhead monies to fund intercultural initiatives. In the case of Boroa, the state helped finance the construction of the intercultural health center. In Nueva Imperial, where a new hospital is being

built, funds will be allocated to the construction of a traditional health section.

The Makewe experience suggests progress in the development of respect for indigenous cultural values. For example, more physicians want to be recruited by the hospital, apparently due to the prestige this intercultural model has obtained. In the rural areas, both the western services and the *machis* and other traditional healers, are commonly utilized. Increasing numbers of urban dwellers are also traveling to rural Chile to consult with *machis*. The Nueva Imperial initiative suggests that the public health system is making some changes to accommodate Mapuche practices, but it is not clear if this extends to other public hospitals and health centers.

Perceptions of Opportunities and Benefits Provided by Intercultural Health Initiatives

The development of the Makewe intercultural health program required the Mapuche communities to organize politically around the topic of health. Although there had been previous organizational efforts to promote economic development, the Makewe initiative required a new discussion on the value and role of traditional medicine, the responsibility of community health leaders, and the role of the state in intercultural health.

Chile's government provides some funding for intercultural health programs, which with the exception of the IDB-financed *Orígenes* program is minimal. The Health Directorate seems to rely heavily on its advisory role in the *Orígenes* program. There has been no indication from the health-related government agencies that the program will be maintained with ongoing health ministry funding once IDB financing is over. Given the ministry's limited overall budget and, in particular, the limited resources available for indigenous programs, it is not clear how the Mapuche projects could be replicated on a broader scale. The Special Section on Indigenous Health of the Ministry of Health is currently working on a program that will provide the Treasury with direct budget lines to fund traditional indigenous programs, thus relieving the problem of inappropriate reporting methods. In terms of management, the Makewe initiative is providing positive health

management experience to indigenous organizations.

The articulation of intercultural health in Makewe and Boroa, which incorporates historical Mapuche holistic approaches to health grounded in a community context and the formal health system provides the Mapuche with a reliable and non-threatening platform upon which to achieve a level of interdependence with the state and general society, while at the same time maintaining independence of thought and vision.

Perceptions of Constraints and Risks Associated with the Articulation of Indigenous and Western Health Systems

The Catholic Church is currently more tolerant of traditional Mapuche medicine, but the evangelical churches remain opposed to aspects of Mapuche healing and practices. The opposition of evangelical groups to intercultural programming in Makewe hospital was quite strong and vocal during the initial process of acquiring and reorganizing the hospital.

Western physicians who come to work at the Makewe Hospital often bring with them attitudes that conflict with the intercultural model. Not only does their training in western medicine contribute to negative attitudes towards traditional indigenous medicine, but they are also often quite religious and sometimes personally uncomfortable with practices that seem at odds with Christian beliefs. Physicians are not comfortable with referring patients to Mapuche healers because of concern that the College of Physicians might censure them. Despite increased acceptance of intercultural health programs by physicians, particularly in the last several years, a concerted effort is still required to develop medical curricula that engage students in medicine as well as other health professions in increasing their understanding of the traditional Mapuche medicine system and cosmovision.

The legal system also constrains the articulation of the two systems because the Sanitary Code makes it illegal to practice medicine without a license, and there is no provision to license *machis*. The current government chooses not to act

on this restriction and intercultural programs circumvent it by paying for services other than healing. However, healers are now more publicly visible and their actions could become the target of police harassment, placing them at risk if there was a change in government policy.

Development of an appropriate funding formula for intercultural services is inhibited by the lack of data for assessing Mapuche health needs, for both traditional and conventional services. Statistics are kept for the use of western medicine, but the Mapuche population is not disaggregated from the general population. (Chile has historically maintained a policy of not differentiating different population groups.) Basic utilization statistics are being collected on intercultural health programs such as the Makewe hospital and Boroa Filulawe. However, the difficulty with these data is, again, the lack of disaggregation in terms of the portion of traditional practitioners' services that are financed by the ministry.

Attempts are being made to remedy the lack of statistical data and insufficient reporting of traditional services. The Health Ministry's Special Section on Indigenous Health was created in 1996 to develop technical guidelines for regions to use in consulting with indigenous populations prior to implementing programs. In some areas, indigenous expertise has surpassed the guidelines, as well as resources that are available to continue existing initiatives.

Traditional Mapuche health providers practice extensively throughout rural Chile, particularly in Region IX (Araucanía), which has high proportion of Mapuche residents. More recently, they are also practicing in some urban communities that have large Mapuche populations. According to current Chilean law these individuals are practicing medicine without a license. In the case of one urban clinic in Santiago (Nueva Extremadura in La Pintana) each individual who requests traditional medical services is referred to the machi (whose ruka is behind the center), but must sign a release form. There is no apparent peer evaluation process for traditional practitioners, but there is clearly monitoring and sanctioning by the community for wrongdoing.

There are some risks inherent in the articulation of indigenous and conventional medicine in Chile, such as the potential for legal problems. As well, the national system of health has significant difficulty in reorienting itself to reflect indigenous perspectives. Increased awareness of the existence of traditional healing practices, without appropriate sensitivity training might even result in outright rejection. Currently, most health providers are simply unaware of the fact that many persons are relying on these methods. Thus, forced inclusion of traditional practices without first ensuring that the needed changes in medical training have been made, carries possible risks for indigenous peoples.

Impacts of the Development of Intercultural Health System

Recent health reforms in Chile now require that the regions work in directly with indigenous populations. The idea is that the health system should be developed in a collaborative way. Health authorities expect that this will lead to the integration of broader issues (e.g., environmental issues). The intent also is to make sure that all programs in the particular region incorporate the Mapuche vision of health. The regional offices of the Ministry of Health are responsible for implementing this new approach.

Government programs such as PROMAP (Public Administration Modernization Program) and Orígenes in Chile reflect actions taken to ensure more government involvement in including indigenous issues and perspectives in health services. One of government's main focuses is on systemic changes, not just changes to services but changes to the bureaucracy in all ministries. The intent is that the community will become as involved as possible, although this whole process takes place within the restrictions of the funding. The major goals of the program are to strengthen the community, bilingual education, economic development, intercultural health, and improve access to healthcare. Additionally, the Ministry of Health has been more active in supporting community-driven projects that reflect local cultural practices and have a certain level of autonomy, like the Makewe Hospital and Boroa Filulawen. Efforts in the implementation of intercultural

health are still relatively new and community members do not feel that health personnel respect their cultural practices.

Both Boroa and Makewe receive funding from the regional health department in the form of service contracts. This funding requires detailed annual proposals that must compete for Ministry of Health resources with other proposed projects. The budget for of these intercultural health services is significantly greater than that for other regional health services that the Ministry delivers. These service contracts are reviewed from a practical perspective in that the healthcare providers must provide a level of service consistent with other health services in the region. However, the intercultural health services use some of this funding for their traditional healers, but they cannot report these services in their annual reporting cycle, and as a result they appear not to be providing the level of services they are contracted for.

Community leaders in the Makewe area argued that they have seen an improvement in the overall health status of their people in the past ten years since the introduction of the intercultural program. They attribute these improvements in part to the restoration of pride in the Mapuche cultural heritage that the status of the *machi* symbolizes, as well as to improved access to primary healthcare services. Nonetheless, it is not possible to empirically evaluate the impact of intercultural health services on Mapuche health status in part because data is not disaggregated by ethnicity in the Ministry of Health database.

Many people in Mapuche communities suffer from psychological traumas of long standing that result from the repression and land reform under the Pinochet regime. The intercultural health program is playing a particularly important role in the healing process for these individuals and families.

The Makewe and Boroa facilities are easily accessible to the surrounding communities: geographically because of their location near to the communities they serve and culturally because of the intercultural nature of their programs. Importantly, they are also accessible because of the fact that indigenous authorities manage them. In addition, Makewe and Boroa have made it more convenient

for Mapuches to access traditional healers. The establishment of the health center in Boroa seems to have had an impact on the community's ability to access a wide range of western health services.

The negative attitudes and practices towards Mapuche medicine from some of the churches had forced *machis* to conduct their ceremonies in secrecy, pushing the traditional knowledge system underground. Although the Mapuche have recovered a good portion of this knowledge, they recognize that much has also been lost. Makewe and Boroa have helped counteract these negative attitudes and re-legitimized traditional healing practices, thus encouraging access.

Community people are very proud of the role that the Makewe Hospital Association has played in maintaining community harmony and cultural stability. When the municipality tried to weaken community organizations in the struggle for control of the Anglican Church property, the majority of people applauded the success of the Makewe Hospital Association as an example of what can be accomplished.

Ecuador

Health Service Environment

It is estimated that 30 percent of the population of Ecuador lacks healthcare coverage, and that 75 percent have no health insurance. While the out-of-pocket health expenditures of higher income groups is less than 10 percent of their earnings, less fortunate groups may spend as much as 40 percent of their income on health care.

The health sector is composed of various public and private institutions, both nonprofit and for-profit, which are very loosely coordinated by the National Health Council. All together, the public sector is responsible for meeting the needs of approximately 59 percent of the population, primarily in terms of hospital care. It is estimated that the Ministry of Public Health covers 31 percent of the population; social security, 18 percent; the Guayaquil Welfare Board, the Society to Combat Cancer, and other nonprofit private institutions, 10

percent; the Armed Forces and Police, 1 percent; and various private for-profit enterprises, 10 percent. The remaining 30 percent of the population do not have access to formal medical care.

Private for-profit organizations have built hospitals of varying levels of complexity, as well as physicians' offices, and auxiliary diagnostic and treatment services for the population that is able to pay for them. These organizations include both insurers and private prepaid medical enterprises. A considerable portion of the population—mainly those with limited resources and especially people living in rural areas—use traditional medicine. Under the Health Code currently in effect, the Ministry of Public Health's Public Health Control Bureau is responsible for regulating the provision of health services in general.

In 1995, there were 3,462 health establishments, 2,988 (86.3 percent) without beds and 474 with beds. Of the former, 51.4 percent came under the jurisdiction of the Ministry of Public Health, 32.6 percent under the *Instituto Ecuatoriano de Seguridad Social* (IESS) and Farmers Social Security; and the remaining 16 percent under the jurisdiction of other health sector institutions. Twenty-six percent of the establishments with beds belonged to the Ministry of Public Health, 62.7 percent were in the private sector, and the rest corresponded to other institutions. The total number of health institutions in operation includes general, specialized, and canton hospitals plus private clinics. Those without beds include health centers and subcenters, health posts, and doctors' clinics. Most of the establishments with beds are located in the cities, whereas 57.1 percent of those without beds are in the cities and 42.9 percent are in rural areas.

Information on health care spending is not very recent, reliable, or complete, especially as far as the private sector is concerned. The data available indicate that public spending on health as a percentage of total government expenditures fell from 5.5 percent in 1992 to 4.6 percent in 1996. Government spending on health declined due to the fiscal crisis and adjustment programs that greatly reduced allocations to the social sector (from 7.8 percent of GDP in 1992 to 5.2 percent in 1996). Spending by the Ministry of Public

Health as a percentage of GDP fell from 1 percent in 1985 to 0.75 percent in 1995. Not only is the share of public spending allocated to health small but also, in addition, its distribution is clearly inequitable and its use is inefficient and centralized. Fortunately, private spending on health increased between 1992 and 1996.

Epidemiological Context

Ecuador's estimated life expectancy at birth in 2004 was 76 years for the general population (73.2 years for men and 79 years for women). Between 1990 and 1995 the leading causes of death in the general population were the following: pneumonia (27.2 per 100,000); cardiovascular diseases (23.1 per 100,000); traffic accidents (15.8 per 100,000); and malignant tumors of the stomach (12.7 per 100,000). Deaths due to homicide were the sixth cause of death, responsible for 55,443 years of potential life lost (YPLL), 50,200 of them in men.

In 2004, the estimated infant mortality for the country as a whole was 24.5 deaths per 1,000 live births, with large differences among the provinces. In Chimborazo, for example, where the population is predominantly rural and indigenous, the estimated rate was almost double. Acute respiratory infections were responsible for 37 percent of the deaths of infants from 1 week to 11 months of age and for 32 percent of deaths in children from 1 to 4 years old; and they accounted for 28 percent and 24 percent of hospital discharges, respectively.

Chief among the leading causes of death and disease in the indigenous population are those related to poverty: acute respiratory infections, acute diarrheal diseases, and malnutrition. Hypoxia and complications of delivery and the puerperium are the leading causes of infant and maternal death, respectively. Chronic malnutrition in children under 5 years of age reached 69 percent in some of these areas, compared with the national average of 49.4 percent. It is estimated that between 60 and 70 percent of black children in Esmeraldas suffer from malnutrition. The health situation of populations living near the borders with Colombia and Peru is critical, especially among those living in the eastern region. Chronic childhood malnutrition

is 65 percent, and infant mortality rates exceed 50 deaths per 1,000 reported live births.

Indigenous History and Cultural Context

An estimated 43 percent of the population of Ecuador is indigenous, and there are currently 15 indigenous nations living in the country. Ten indigenous nations live in Oriente (Amazonia): the Cofán, Secoya, Siona, Waorani/Aishiri, Kichua of Oriente, Shuar, Achuar/Shiwiar, Zaparo, Epera, and Manta. Four indigenous peoples live in the Coast: the Awa-Coaquier, Chachi/Cayapa, Tsachila, and Wancavilca. By far the largest indigenous population, the Kichwa live in the Sierra; they include the Otavalo, Karanki, Salasaca, Saraguro, Chibuleo, Chimbu, Kañari, Quizapincha, Waranka, Panzaleo, Situ, Kayampi, and Natabuela.

Originally, the peoples of Oriente and the Coast hunted, fished, gathered wild vegetables, and some cultivated garden plots. European descendants arrived in these areas to exploit rubber, gold, quina (*chinchona*), oil, and now also for cultivation and cattle raising. The colonial expansion on indigenous territories not only displaced them but also changed their patterns of settlement and way of life. Indigenous peoples became sedentary populations and permanently based in smaller territorial extensions, thus depending on the cultivation of land that lost fertility over the years.

The indigenous peoples of the Sierra also lost territories and suffered various forms of oppression through the process of conquest and colonization (first Inca then Spanish). The *encomienda*, *mita* (forced work in the mines and *haciendas*), and *obraje* (work in artisan centers) were forms of exploitation of the early colonial period. After the mining crisis of the XVII century, the colonizers expanded and consolidated their haciendas at the expense of communal indigenous land. This process continued during the Republican period known as the *Hacendataria* Phase, during which forced indigenous labor through a debt system was also enforced. This system continued after independence and also included forced labor in public works projects and *haciendas*. Tribute of the indigenous population was not abolished until 1852.

A series of laws favorable to the indigenous population working under forced conditions in the haciendas was enacted following the Liberal Revolution at the beginning of the twentieth century. A number of indigenous uprisings that took place in the 1940s entailed struggles to recover lands. Two agrarian reforms took place between 1964 and 1972 that returned lands to the indigenous people. However, their situation actually worsened because the land reforms promoted small-scale farming, the fragmentation of land through inheritance and prohibitions against using hacienda resources such as wood, water and land for grazing. A migration of indigenous people to the cities ensued.

The indigenous people of the Sierra live off agricultural production and with artisan occupations. Migration to urban areas and overseas remains strong, particularly in the case of young people, who tend to work in construction, informal trade, and domestic labor. Despite these adverse conditions, the indigenous people of Ecuador have maintained their cultural identity, which is apparent in their language, clothing, music, customs, ethical principles and cosmovision.

The Confederación de Nacionalidades Indígenas del Ecuador (CONAIE) was created in 1986 and is recognized as the major organization representing the country's indigenous peoples. Two major regional organizations, the lowland Confederación de Nacionalidades Indígenas de la Amazonia del Ecuador (CONENIAE) and the Movimiento Indígena Campesino Ecuador Runacunapac Riccharimuy (ECUARUNARI), are affiliated with CONAIE.

Description of the Community/Region

The Otavalo canton in province of Imbabura, ranges in altitude from 1,500 to 4,650 meters above sea level. The city of Otavalo has a population of almost 30,000. While the official language is Spanish, many people also speak *Runa Shimi* or *Kichua* (a result of a fusion between the Quechua language brought to the region by the Incas from Peru and indigenous pre-Kichua languages).

Due to its location, Otavalo is the most important tourist area in the northern region of the country.

It is a major production center and market of traditional textiles. The majority of the small textile businesses are owned by the indigenous population, like the Kichua Otavalo, the group that gave the city and the region its name. The Otavalans are one of the most recognizable indigenous peoples in the Americas due to unique historical and sociocultural forces, which have permitted them to maintain their customs and traditions over time. Their musical talents, artisan skills and traditional style of hair and dress are world renown, as is their famous handicrafts market. The current mayor of the city is Kichwa Otavalo.

Case Study

The central component of the indigenous health program of Ecuador's Otavalo region is the Jambi Huasi Clinic in the city of Otavalo. The clinic has been in operation since 1990 and provides a full range of western and indigenous health services to 40,000 people on a fee-for-service basis. The Jambi Huasi Clinic operates under the authority of Federación de Indígenas y Campesinos de Imbabura (FICI), an indigenous organization supported by 160 communities in the region. The FICI executive is elected in an assembly held every two to three years, where a health director is appointed. The organization also represents the region as part of the CONAIE.

Jambi Huasi occupies an older house in a central area of Otavalo, which was purchased with funding from international NGOs. The clinic offers western, indigenous, and alternative health services. Western services include physicians (two sharing a full-time position), a dentist that is available four days per week, and a laboratory. Indigenous services include a *yachac* (spiritual healer available one day per week), a *fregadora* (herbalist/massager on a full-time basis) and a midwife (full-time). One alternative practitioner specializing in Chinese massage and acupressure is available full-time as well. The Clinic also has a health promotion facility that integrates knowledge from both systems.

The second component of Otavalo's indigenous health program is the Indigenous Midwives Association, which was formed in 2002 to monitor the certification of traditional midwives (*parteras*) in

the region. There are 64 midwives registered with the Association, although there are many more unregistered midwives in the Otavalo region. Although the Association is independent of Jambi Huasi and FICI, it coordinates its activities with the clinic through periodic meetings. The municipal health directorate also supports the group by providing resources for training as well as some equipment.

The third component is the Yachac Association of Iluman, a small community near Otavalo. *Yachacs* are the spiritual healers in the Kichua community and there are a large number of them concentrated in this region due to the sacred nature of the area. The region is located in the confluence of several volcanoes that provide spiritual strength to the yachacs. In 2005 the Association had 47 members, including some from surrounding localities. Although the Yachac Association operates independently of all other health services and organizations, Jambi Huasi advocates with government and the western health care system on their behalf.

Finally, the state has initiated an intercultural health program that attempts to build networks of indigenous organizations, government health departments at various levels, health care providers and NGOs. This program has a regional focus but does not provide direct funding for services. We observed one example of a network in operation in the Archidona municipality in the Amazon region of eastern Ecuador, but determined that the program did not reach the minimal criteria for a best practice in intercultural health as described in the introduction to this report.

Cultural, Funding and Management Approaches to Intercultural Health Service Development

The Jambi Huasi clinic in Otavalo is organized in a structurally intercultural way. Starting from its mission statement, the clinic addresses issues of racism and equality of care for indigenous people and seeks to promote respect for the indigenous cosmovision and political commitment, as well as principles of institutional control and full participation of the indigenous population. Its staff also reflects an intercultural model, where western and traditional practitioners (physician and yachac,

western midwife and traditional midwife) have equal hierarchies and pay scales. This approach increases the clinic's cultural relevance and positions it to properly address Kichua cultural needs.

Jambi Huasi is entirely funded through non-state means, currently operating on fee-for-service, though it did have national and international donors during its early development. Originally created to enhance service to rural communities, most clients are now urban. It is managed and operated through the indigenous organization: Federación de Indígenas y Campesinos de Imbabura (FICI).

There is one government funded intercultural health project that works in conjunction with FICI. It operates from the Indigenous Unit created by the Ministry of Health, although budgets and staffing are very restricted. Despite initial the health system resistance the project was put into operation and now provides program services to 189 communities. It is coordinated by government health centers (with involvement of leadership such as FICI). Problems such as insufficient funding continue to exist, but it things have reportedly improved. The program has four components: traditional indigenous medicine, intercultural health, research and inter-institutional work. The traditional indigenous medicine component provides training for midwives on pregnancy complications that would require early referral to the health system, training on the use of medicinal plants, and a recovery project on traditional foods. Participants receive provincial certification once they finish the midwives training portion of the training. The intercultural health component provides hospital training to overcome the lack of knowledge and understanding of indigenous people. The research component centers on the cultivation of medicinal plants, a pharmacy for traditional medicines, the raising of guinea pigs for consumption, and the establishment of garden plots (which is impeded by the lack of irrigation). The fourth component involves inter-institutional work with NGOs and the state to provide community training in health promotion and disease prevention, and sexual and reproductive health. The program reaches very isolated communities (e.g., eight hours travel on horseback).

There was no not evidence of much progress in the development of respect for indigenous cultural values in the public health system of Otavalo, particularly in the hospital. The municipal government is seeking to make changes but its health funding is very limited. The noticeable progress in mutual respect across the mestizo and indigenous populations of the region has not yet translated into visible changes in the health system. Jambi Huasi may be playing a favorable role in this respect, given that a large number of persons of mestizo heritage use its services and that it is involved in regional health and some hospital committees.

Perception of Opportunities and Benefits Provided by Intercultural Health Initiatives

The municipal government has indicated that the Jambi Huasi has had a valuable impact in terms of training western health care staff and facilitating communication and trust with the indigenous communities. Several municipal government departments are interested in establishing collaborative programs with Jambi Huasi and the midwives association in the areas of maternal, child and adolescent health. Jambi Huasi has also become a source of pride for the indigenous community. Before it was opened, negative stereotypes of indigenous healers as practitioners of witchcraft dominated public perceptions in the region. These perceptions have shifted, and the value now placed on indigenous medicine may have partially influenced improved ethnic relations in Otavalo.

The government's interest in ensuring cultural respect and access to care for Ecuador's indigenous populations is evidenced in its focus on a strategy of increasing the cultural sensitivity of health care providers and attempting to reach rural and remote communities. Despite these efforts, the budget is small and services are very often insufficient. Government resources allocated to intercultural health programs are not sufficient to have a lasting effect, particularly upon established health professionals. For real change to occur changes need to take place at the university training level.

In Otavalo, the existence of Jambi Huasi appears to have enhanced Kichua cultural continuity and

given communities an opportunity to have more pride in their own cultural health practices. Jambi Huasi does not seem to have had an impact on the more culturally appropriate treatment of patients at the hospital, nor has it been able to address the issue of lack of access in rural and remote communities. Nonetheless, Jambi Huasi's participation on various government and hospital committees may be having some influence at a policy level.

Perception of Constraints and Risks Associated with the Articulation of Indigenous and Western Health Systems

In Otavalo, western medicine is provided through a district hospital in addition to private practitioners. Physicians working at the hospital have demonstrated little interest in collaborating with traditional practitioners. Hospital administrators cited national regulations that prevent physicians from active collaboration with traditional healers, and argued that physicians are primarily concerned with potential iatrogenic problems associated with traditional healing. There were conflicting accounts regarding discriminatory practices in the hospital in relation to indigenous people. The hospital denied any racism, although no attempts to make their practices more culturally appropriate have occurred. Kichwa leaders indicated that racism was prevalent in the local hospital until very recently. Although the Otavalo hospital is a training hospital, no effort is made to familiarize physicians-in-training with the local indigenous culture or traditional medical practices. An exception was a case in which some trainees expressed an interest in working with midwives during their obstetrical rotation in the local hospital.

Midwives in Otavalo were quite interested to receive additional training from western practitioners and did not seem concerned that this might medicalize their practice. However, they indicated that there did not seem to be much interest from western physicians or medical schools to offer advanced training to midwives.

Although Jambi Huasi staff indicated that they were able to work with Municipal Health Office staff, they were also critical of the way the municipal programs diluted the intercultural effort.

Clinic staff felt that these resources could be better utilized if Jambi Huasi was contracted to provide specific intercultural services. The current system is based on the idea of integrating intercultural programming into state health programs, but it is underfunded and the level of support that it receives is poor. Indigenous leaders would prefer to remain independent of the state and provide these services on a contract basis in order to maintain their autonomy. The problem, however, is that municipal regulations prevent funding from flowing to private health care enterprises, and Jambi Huasi is considered a private enterprise.

One of the major problems in Ecuador is that the health system, which in principle seeks to ensure adequate coverage through a network of primary care and referral centers, is not able to achieve this. In an environment that is unable to meet even basic needs, discussion of government funding for intercultural health seems remote.

Another constraint is that none of the national indigenous political bodies seemed to clearly support intercultural health. Rather, each was intent on pursuing traditional approaches to health services as part of a larger and more integrated body of knowledge and action directed toward self-governance.

In 1988, the Ecuador constitution was amended so that traditional healers would no longer be harassed for practicing traditional medicine. Nonetheless, there does not appear to be any clear regulations as to how the formal health system should or could relate to and work with traditional practitioners.

Appropriate training and oversight programs supported by Jambi Huasi for traditional midwives have been developed to reduce the risk of malpractice. The Association of Midwives is attempting to establish a council of wise women and men who can ensure that "false" practitioners are performing traditional medicine. In addition, an association of yachacs has been established to determine whether or not any given individual can practice traditional medicine.

Impacts of the Development of Intercultural Health Systems

Some accommodation are being made to ensure that intercultural health and traditional practices have a role in Ecuador, but there is little evidence that the health system proper has made any effort to accommodate practice needs. There are multiple models of intercultural health, but the government funds none of these. Jambi Huasi was created as an intercultural health model where western and traditional practitioners work side by side, are equally recognized in the hierarchical structure, and have systems of mutual referral and knowledge exchange.

Jambi Huasi charges similar fees for indigenous and western services. Both the physician and the yachac are paid \$350 per month. The other five practitioners are paid between \$200 and \$350 per month (for an average monthly payroll of \$2,100). On a typical day, the Jambi Huasi may see 30 clients who pay \$3 per visit to any healer plus incidental fees for medicines and other treatments (for an average monthly income for the clinic of \$2,000-\$3,000). Although Jambi Huasi's operations are very efficient, in the absence of external financial support, it is not entirely sustainable because it lacks resources to finance costs like administration, capital depreciation, and clinic infrastructure development.

Clinic staff indicate that the only way they are able to stay open in the absence of external funding is because they were able to purchase the clinic building with backing from previous donors. Their current fee-for-service income is barely sufficient to meet salaries and basic administrative expenses, and they rely to a large extent on donated supplies and services.

An alternative model is that of the Archidona community in Amazonia, which receives state funding to support intercultural programming. However, it is clear that the scale of this project could not be sustained without a significant subsidy of money and technical support from international donors.

Although little data is available on the health status of Ecuador's indigenous peoples because

health statistics are not disaggregated by ethnicity, government officials reported that as much as 40 percent of the population does not have access to primary health care services for cultural and economic reasons. They explained that many indigenous people in more remote areas prefer not to obtain state services unless they are very sick.

Jambi Huasi is primarily an urban clinic and although it does attempt to provide some outreach services to villages in the Otavalo region, some rural indigenous communities do not have the same access to traditional healing services as urban dwellers. This is somewhat surprising, given that western medical services are also lacking in rural communities. For some indigenous leaders, this paradox presents a real problem because of the notion that traditional healing must be rooted in a traditional cultural context that is generally absent in the urban context.

Cultural barriers to access to hospitals appear to be significant, particularly in the case of pregnant women who generally resist going to the hospital. Geographical and support barriers could be playing a role. The inclusion of traditional midwives in hospital health care teams that serve these women could go a long way in minimizing these barriers.

Renewed interest and support for midwives and herbalists in Otavalo appears to have contributed to renewed community respect for women, which had diminished as a result of colonialism and Catholicism, contributing to violence against them. As healers, Kichwa women are again taking a more active role in the social and political life of the community, which has promoted gender equality.

Indigenous and Mestizo people from all over Ecuador travel to Iluman to see yachacs because of the renowned powers of the healers in the area. Some yachacs see an average of 20 people per month. Most of these clients want the yachac to perform the *limpia* spiritual cleansing ceremony.

Jambi Huasi attracts more Mestizo than indigenous clients, and most Mestizo patients prefer to see a yachac while the indigenous patients prefer to see doctors. For example, in 2004, 633 Mestizo

patients sought treatment from the yachac while 291 sought treatment from the physician. Comparable figures for indigenous patients in the same year were 345 and 434, respectively. Staff explained that many indigenous people will seek traditional healers in their own communities whereas Mestizo patients have more limited options and find it easier to see traditional healers at the clinic.

Jambi Huasi staff reported that when they first opened, many people would visit the clinic after 6 pm if they wanted to see the yachac for fear of ridicule from neighbors. This has changed and people visit the healer at all times of day, and there is little stigma associated with it.

During an interview, a young leader indicated that participating in traditional healing practices was a very important way for him to protect his cultural identity. He explained that for young people educated in western systems, it is difficult to sustain a cultural identity, but vitally important to do so in order to remain “healthy” in the cultural sense. Participating in the traditional healing systems is one of the few opportunities for youth to re-affirm their cultural identity.

Colombia

Colombia’s population in 2003 was estimated at 44.5 million persons, 73 percent of whom lived in urban areas. Colombia is a young country, with almost 32 percent of the population under 15 years of age. Internal migration flows mainly toward the Andean region, while external migration is primarily to Ecuador, the United States, and Venezuela. Colombia is multiethnic and multicultural, with diverse traditions and different languages. There are 81 indigenous groups (1.8 percent of the population), as well as a sizable population of African ancestry (25 percent) and of mixed race.

Colombia has faced decades of political and economic struggles, much of it linked to narcotics trafficking and civil war. Since taking office in August 2002, President Alvaro Uribe has enacted political, fiscal and social reform policies, combined with increased security measures in order to

promote economic growth and stability. However, Colombia still faces many external and internal challenges, including debt management, sagging oil production and unemployment. In 2002, the unemployment rate was 15.7 percent and the proportion of the population living under the poverty line was almost 60 percent. In 2001 the illiteracy rate for the population age 15 and over was 7.5 percent, with 87.2 percent of children between 6 and 10 in elementary school. However, the statistics for the country as a whole obscure large differences across regions and between urban and rural areas and social groups.

Health Service Environment

The essence of Colombia’s health system reform (*Ley 100*) is the provision of coverage to persons under contributory and subsidized schemes that are based on the redistribution of income, ensuring universal benefits through protection of the insured, the spouse, and minor children as well as parents and other relatives. The important role of promotion and prevention in the new system, the significant increase in the government’s financial contributions to health, the greater spending efficiency gained from competitive arrangements, the strong participation of upper-income groups, and the solidarity inherent in the system are factors that are expected to contribute to major improvements in health. Estimated per capita health expenditures in 2000 were \$104 and accounted for 8.2 percent of GDP. Of this, 4.5 percent was from the public sector, and 3.7 percent from the private sector.

Health sector reform has encountered a major problem with regard to access to services, especially among the very poor and the unemployed. One of the benefit plans proposed under the reform is a compulsory health plan (POS-S), which is designed to respond to the needs of the poorest and most vulnerable members of the population. POS-S includes initiatives to benefit the individual, the family, and the community in general. Six of these initiatives are part of the basic plan and one is a form of reinsurance against high-cost illnesses.

The new general social security system for health is based on four pillars. The first pillar is the *Na-*

tional Council on Social Security for Health, under the Ministry of Health, which is responsible for administering the system. The Ministry of Health relies on departmental health services (one per department) to carry out its duties at the territorial level. The second one is the *National Solidarity and Guaranty Fund*, which is responsible for financing the system. All persons with incomes higher than the equivalent of two times the minimum wage income are required to contribute to the system, while the poor, the unemployed, and peasants received subsidized health benefits (*regimen subsidiado*). The third pillar includes *private health promotion enterprises*, which are the fundamental organizational nuclei of the system. They are responsible for mobilizing financial resources, health promotion, and organization and delivery of medical services. In addition, they organize complementary health plans (public, private, partnership-based, or mixed) that compete for subscribers. Six of the existing health promotion enterprises are indigenous owned (one of them, AIC, is our case study). The final pillar includes the institutions that provide health services: hospitals, outpatient clinics, laboratories, basic healthcare centers, other health service centers, and all professionals who offer their services through the health promotion enterprises. Law 100 also specifies that, as part of the Compulsory Health Plan, initiatives executed by the local government to promote health and prevent disease must be provided free to the entire community and should respond to popular needs. All the system's subscribers have the right to be covered under a basic plan, which includes emergency care, hospitalization, consultations, and medication.

The public health service network consists of 904 health centers, 128 health centers with beds, and 555 hospitals (397 hospitals at the primary level, 126 at the secondary level, and 32 at the tertiary level). In addition, there are 340 private clinics. Under the health insurance system, the 10 public health promotion enterprises, together with the 20 approved private and mixed enterprises, have the capacity to handle a total of 21.6 million persons. As of 2002 a total of 13.9 million Colombians were covered. In 2004 there were 58,761 physicians (135 per 100,000 inhabitants), 103,158 nurses, nurse assistants and midwives (237 per 100,000) and 33,951 dentists (78 per 100,000).

Epidemiological Context

Life expectancy at birth in 2003 was 72.2 years (69 for men and 75 for women). Crude mortality was 5.5 deaths per 1,000 inhabitants and infant mortality was 25.6 deaths per 1,000 live births. Among infants (less than 1 year old) respiratory illnesses were responsible for 30 percent of deaths, followed by congenital malformations (15 percent). For children 1 to 4, acute respiratory infections accounted for 14 percent of deaths, followed by intestinal infections 8.4 percent. Accidents and nutritional deficiencies were responsible for approximately 8 percent of deaths. Other leading causes of death in older children (5 to 14) were vehicle accidents (18 percent in boys and 11 percent in girls), followed by homicides (13 percent boys and 8 percent girls). The leading cause of death in adults up to 44 years of age were homicides (59 percent in males or 215 per 100,000 and 16 percent in females or 15 per 100,000). Pregnancy related issues and vehicle accidents were the other leading causes of death in females, accounting for 7.7 percent (7.2 per 100,000) and 7.7 percent of deaths (7.1 per 100,000), respectively. Homicides and cardiovascular disease were the leading causes of death among men aged 45 to 64 (16.2 percent and 15.5 percent respectively), with rates of 120 and 114 per 100,000, respectively. In women, cardiovascular and cerebrovascular illnesses were the leading causes of death in this age group (12.8 percent and 10.9 percent respectively, with rates of 57 and 49 per 100,000). Cardiovascular, cerebrovascular and chronic respiratory diseases were the leading causes of death in male and female seniors (20 percent, 12 percent and 8 percent respectively). The rate of congenital syphilis in 2002 was 125 per 100,000 inhabitants, and tuberculosis accounted for 26 of 100,000 deaths. Malaria accounted for approximately 550 of 100,000 deaths in rural areas in 2002.

In 2000, institutional coverage for pregnant women was 94 percent, each with an average of six checkups. In that same year, the coverage rate for institutional deliveries was 93.5 percent. Of all pregnancies, 24 percent were terminated by abortion and 26 percent resulted in unwanted births. Abortion is the second leading cause of maternal death, accounting for 15 percent of all pregnancy-

related deaths; the highest incidence is among women between the ages of 20 and 29. This reflects the unmet demand for contraceptives in the at-risk population.

An analysis of the violence scenario since the 1970s shows a picture of social disorder resulting from premeditated acts of revenge, the settling of accounts between drug traffickers, terrorist plots, delinquency, confrontations over land rights and the exploitation of emeralds, and other alarming manifestations of everyday violence. This situation has displaced many Colombians who have been forced to move from their places of origin to save their lives. Displacement, or involuntary migration because of violence, has had grave consequences for individuals and families who are not directly involved in the conflicts but whose physical safety has been threatened. These groups are scattered throughout the country.

This type of private justice has uprooted peasants whose living situations become untenable in conflict-torn areas. For those living in abject poverty, displacement due to violence is an even greater burden. It is estimated that guerrilla activities are responsible for 26 percent of this displacement; paramilitary forces are responsible for 32 percent; people's militias for 16 percent; the regular armed forces for 16 percent; and violence caused by other groups is responsible for the remaining 10 percent. Forty nine percent of displacements are the result of intimidation. This is followed by killings (15 percent), holdups (8 percent), and other types of threats (28 percent).

According to information from humanitarian organizations, during the period between December 1995 and December 1996, 53 percent of the displaced population were women and 54 percent were under 18 years of age. Female-headed families represented 36 percent of the total displaced population during this period. Access to health services is becomes a serious problem in the wake of forced migration. Only 22.1 percent of displaced households have access to medical care.

Indigenous History and Culture

In 2001, the total indigenous population of Colombia was estimated at 785,356 (approximately 2.1 percent of the total population). Eighty-one indigenous ethnic groups have been officially recognized. Of these, the most numerous are the Wayúu (150,000), followed by the Páez or Nasa (138,000), the Embera (88,000), and the Pastos (70,000). There are 40 ethnic groups whose population is less than 1,000 people.

The indigenous population is relatively young: 45 percent are under 15 years of age. The fertility rate is 6.5 births per woman (more than double the national rate). The absolute fertility rate is 41 births per 1,000 inhabitants, compared to 26 per 1,000 of the general population. However, the life expectancy of indigenous people is only 57.8 years for women and 55.4 years for men, compared to 75 and 69 years, respectively, for the general population.

Indigenous people have adapted over thousands of years to the extreme climatic conditions of the ecosystems of their traditional habitat. They have a tendency is to live in disperse population groups, despite the effort of missionaries as well as colonial and republican governments. Indigenous inhabitants of the regions of the jungle and savannah (Amazonía, Orinoquía and Pacífico) live scattered across the largest areas, while the small-scale farmers living in the Andean and Coastal regions occupy relatively smaller territories.

The loss of territory since the time of the Spanish conquest has been the main cause of the extinction of many indigenous peoples and communities. This has been reversed over the last three decades as indigenous social movements fought for and won the consecration of their collective territories in the country's new constitution as inalienable and not subject to attachment or prescription. This also covers the collective territories of black communities of the Pacific coast. Unfortunately, increased violence over the last 10 years has resulted in seizing of lands by narco-paramilitary groups who have established *latifundios*. They have not, however, seized indigenous lands. The violence, massive violations of human rights, forced displacements and the loss of territories

have been the major causes of death and illness for many indigenous and black communities. Although Colombian law gives indigenous communities preferential mining rights, some of their resources-rich territories (oil, minerals, biodiversity, sources of energy) are also objects of interest of multinational corporations.

The Organización Nacional Indígena de Colombia (ONIC), headquartered in Bogotá, currently represents approximately 40 indigenous organizations. One of the problems that ONIC faces is the lack of financial stability and its reliance on international funding sources. The Consejo Regional Indígena del Cauca (CRIC), an ONIC-affiliated organization, is one of the oldest indigenous organizations in Latin America, and the largest in Colombia. CRIC represents 81 indigenous reserves, 108 indigenous *cabildos*, and 10 *cabildo* associations in the Cauca region. It also provides some financial support to ONIC, which serves as a national political voice for indigenous health across Colombia.

Description of the Community/Region

The department of Cauca is located in southwestern Colombia and occupies 2.7 percent of the national territory (29,308 km²). The extent of the indigenous territory Cauca is 5,312 km². It has a population of 1.3 million people, over 190,000 of whom are indigenous. The capital of Cauca is Popayán. Contrary to the general tendency in Colombia, the majority of the population of Cauca lives in rural areas (65 percent). This department has seen little economic growth, and agriculture is the major economic activity, followed by agricultural manufacture, and trade.

Cauca has a large ethnic and cultural diversity, with numerous ethnic groups such as Paeces (Nasas), Kokonukos, Guambianos, Yanaconas, Totoroes y Esparas Siapidaras. They are grouped under the Consejo Regional Indígena del Cauca (CRIC).

Case Study

The current indigenous health model was developed based on a resolution of the Ninth Congress of the Consejo Indígena del Cauca (CRIC) (March

1997). It was conceived in response to the health problems faced by the indigenous peoples of Cauca, including: the marketing of health insurance in indigenous territories by unregulated non-indigenous companies; lack of acknowledgement of indigenous institutions; lack of adequate and sometimes even basic health care; lack of acknowledgement of cultural differences in the delivery of care, and the general inadequate management of the healthcare issues of indigenous peoples. The design and initial development of the model resulted from proposals put forward by the indigenous leadership and the CRIC health program, which also provided financial and human resources.

The CRIC incorporates a health insurance company, the Asociación Indígena del Cauca (AIC), which started operations in 1998 under the country's subsidized insurance scheme (*Régimen subsidiado*). Membership has increased from the original 9,000 members to the current 166,000 members, some of them indigenous people from other regions different from Cauca, also, covered by AIC. The association's management is entirely of indigenous descent, while the staff is 70 percent indigenous. Operational (delivery of care and programs) staff is 60 percent indigenous.

AIC receives government financing totaling approximately US\$110 (2007) per capita per year for registered members. Ninety percent of the financing goes directly to health programs (17 percent to indigenous program, 48 percent to standard medical programs, 13 percent to secondary and tertiary specialist care, and 12 percent to fourth level care for cancer and AIDS). Administrative expenses (10 percent of total funding) are allocated to operations (7.8 percent), support for CRIC (0.7 percent) and zone administration (1.5 percent).

CRIC includes a health program that has a general coordinator and an administrator, as well as coordinators for five lines of activity: organizational policy; relations with the state; cultural strengthening; territory and environment; and capacity building. CRIC's health program plays advisory, executive and technical assistance roles in relation to health, and also organizes the delivery of inter-

cultural health services and first level outpatient care.

The AIC is a public entity constituted by 102 indigenous authorities, whose objective is to administer the health subsidies according to the terms of laws 100 of 1993 and 691 of 2000. It is directed by an administrative council chosen by the General Assembly of *Cabildos* of the AIC and is presided over by a legal representative also chosen by the Assembly. Its internal structure includes: administration and planning; finance; legal affairs; sociocultural support; medical audits; client relations; systems and membership; and quality assurance of services. At the local level, the *Cabildo* associations are responsible for promoting, supporting and implementing policies, programs, projects and health activities for indigenous communities.

Community involvement is ensured through designations at a local level and at a regional level through the participation in debates and decisions at community assemblies, local community (*vereda*) meetings, zonal assemblies, regional directive boards, directive boards of the AIC, and the Congress of CRIC. The community is not simply a user of the system, but through CRIC, AIC and the IPSs (institutional health service providers) it takes part in the decision-making process directing the health system.

The model is financed through public monies in the form of contracts between the municipalities and AIC. These are funds transferred by the national government to the Fondo de Solidaridad y Garantía (FOSYGA) and the municipalities. The model is also supported through its own resources that originate from the General System of Participation and from international cooperation granted to CRIC's health program.

Cultural, Funding and Management Approaches to Intercultural Health Service Development

The Asociación Indígena del Cauca (AIC) and the Instituto Prestadores de Servicios (IPS-health service delivery entities) run by indigenous organizations in Colombia have designed culturally appropriate programs. Western medicine practitioners

appear sensitive to cultural values and beliefs, and the programs are developed with this approach. In addition, the AIC and IPSs seek to offer traditional medicine services in a variety of ways.

The integration of traditional healers and practices in the system, the development of community programs that are restoring traditional crop production and trading methods, and the support for other community initiatives, are concrete ways in which this initiative is satisfying indigenous cultural needs. Viewed from this perspective, the system is more than a mere health insurance scheme, it is a system that enhances indigenous cultural relevance and self-governance.

According to regulations, the government does not finance traditional indigenous health practices; therefore, AIC creates efficiencies and uses surplus administrative overhead monies to finance these initiatives (administrative overhead is 7 percent of the overall funding received from the government).

The indigenous ownership, management and operation of the AIC and IPSs, as well as the CRIC health program, have enabled the development of health programs that respect indigenous values and practices. New initiatives are developed on an ongoing basis in response to Indigenous communities' concerns, needs and issues.

Perceptions of Opportunities and Benefits Provided by Intercultural Health Initiatives

The Asociación Indígena del Cauca (AIC) and the Instituto Prestadores de Servicios (IPS) initiative in Cauca have had an impact in revitalizing indigenous voices and advocacy, and in strengthening indigenous institutional and community development. The incorporation of both western and traditional medicine in the health insurance scheme and the delivery of health programs run by indigenous organizations have not only increased access and improved quality of care, but have also fostered self-governance and knowledge. A key factor facilitating the advancement of traditional health programs and health promotion is the collectivist nature of indigenous populations. This indigenous insurance company (AIC) and its parent organization Consejo Regional

Indígena del Cauca (CRIC) function in a manner that is not typical of insurance-based health service companies that are usually motivated by profits. At all levels, the primary focus for CRIC, AIC and the IPSs is on the health of the community overall and the advancement of culturally based health initiatives grounded in the local cosmovision and self-governance.

The case of the CRIC/AIC/IPSs in Colombia shows the opportunities that are created when indigenous governance and management in health care and intercultural health are coupled with reliable (if not always sufficient) funding. First, it enables the development of an indigenous governance and management structure in health care. Second, it does so in a context of community participation and representation, thus the model can respond and adapt to community needs. Third, it facilitates the incorporation of indigenous health principles, beliefs and practices jointly with western medicine practices. Fourth, the model approaches health from a broad perspective, thus also supporting the implementation of health promotion, cultural strengthening and community development initiatives. Finally, it has resulted in a significant change in the attitude of health providers vis-à-vis indigenous patients in terms of discrimination, because currently an indigenous organization is in charge of contracting the services.

In Colombia, the CRIC arrangement serves as a useful demonstration project for designing and providing intercultural health services based on traditional practices that can be replicated elsewhere. There is potential for both a direct and indirect financial benefit to the health system by the creation, within a set budget, of economies that allow for the provision of additional traditional programs. Another benefit of the current health insurance system is the increased respect given to the indigenous management of health resources. This has had an indirect effect in enhancing indigenous participation in municipal affairs. Another benefit, although not necessarily due to an intercultural health model, is the increased level of autonomy of communities. AIC is ultimately accountable to the indigenous communities via their representation in CRIC.

Perceptions of Constraints and Risks Associated with the Articulation of Indigenous and Western Health Systems

One of the constraints faced by CRIC is that state regulations require it to follow Ministry of Health norms and guidelines, which sometimes makes it difficult for them to develop cultural programs. The second problem relates to the competition that has emerged in the health insurance market, where large insurance companies are competing for market control and enrolling indigenous people. Finally, CRIC indicated that they provide services to indigenous community members who are not enrolled in their insurance program, and they do so out of solidarity knowing that they will not be reimbursed.

Other constraints occur at the municipal level. Some majority indigenous municipal governments currently offer state funded prevention and health promotion programs based on cultural principles, but they would also like to develop their own service providers. However, the regional governor will not permit this, citing legal restrictions on the responsibilities of municipal governments. Service development is also constrained by the violence associated with guerrilla activity in the region. There have been guerrilla attacks on the hospital in one town visited, and doctors and other health staff refuse to relocate to this area. Government reports seem to indicate that the hospital is underutilized, but the mayors argued that the reason for this is that most indigenous people perceive the hospital as a place to die and thereby do not wish to receive care there. Local mayors have argued that if they had a service provider run by the indigenous community, they could change these attitudes by incorporating intercultural practices, which would increase indigenous utilization of secondary and tertiary prevention services.

Lack of information about the contribution that traditional healers make to the health care system is another constraint on the system. Even information systems for services received from the western health care system are not well developed, so it is impossible to examine health care utilization patterns or health status trends.

The Colombian health system has not been able to achieve its goal of health insurance for all by the year 2000, particularly as it relates to indigenous populations. For the general health system, major operational difficulties resulted in numerous problems in the administration and management of a very complex system. One particular problem is the method for developing a per capita allocation (UPC) that is dependent on risk and utilization in an environment of insufficient capacity for monitoring and information sharing. Health system reforms changed it from a supply-based service to one based on demand. This does not serve indigenous populations well since utilization is often low because of lack of cultural appropriateness as well as poor accessibility of services, particularly for isolated communities. Risk is not well measured secondary to the overall insufficiency of the health system's capacity to undertake adequate epidemiological monitoring and studies. At the same time, lack of services is significantly affected by the long-standing civil war. Few health professionals are willing to work under such conditions.

Government officials also described other constraints to the insurance-based health system. One problem is that the system is adversarial and has too many administrative regulations resulting in much time and energy wasted in disagreements and less time available to think about further developing the system. Another major constraint is that some health problems are covered while others are not. This fragmentation also affects health services and public health such that in regions where indigenous organizations are not strong, there is no coordination between the two. Disagreements also stem from the lack of supportive regulations for an integrated system; for example, indigenous health is holistic and integrated, but the national health system does not make allowances for this, and the country's administrative divisions do not correspond with indigenous territory.

Indigenous health organizations expressed concern over the method of registration in the subsidized program. This role is carried out by municipalities and sometimes individuals who do not qualify are subsidized for political motives, which leads to inequities.

Despite laws that ensure indigenous participation in the development of local health practices, few clear regulations have been developed or implemented in this regard. Most regulations are related to the administration of the insurance and delivery systems rather than to the creation of policy instruments to ensure local participation in the design of services that meet cultural needs. There was no evidence of a national legal framework for traditional practices despite the fact that in some regions, for example, the majority of obstetrical deliveries are done outside of the formal health system. CRIC believes that indigenous populations have their own legal systems, so traditional health, including the utilization of traditional practitioners, falls under the authority of indigenous populations and not under the state (Colombia has a pluralistic juridical system that recognizes autonomous indigenous jurisdictions).

Lack of coverage is another risk in Colombia. There was no evidence of significant support from the general health system for the needs of Indigenous populations. Some hospital administrators expressed resentment that they are required to provide services to non-registered Indigenous populations, despite receiving substantial portions of their budget from an Indigenous insurance company.

Impacts of the Development of Intercultural Health Systems

There is little evidence that the public health system in Cauca accommodates indigenous cultural practices. The only culturally appropriate health services available are provided by indigenous companies, which as a result of efficient management, are able to produce a small surplus. Regional health ministry officials indicated that health priorities were the same for all populations and include immunizations, decreasing maternal and child mortality and morbidity, and addressing drug addiction. This overall plan is not adapted to indigenous populations in order to improve its results. It is apparent that the government is aware that local indigenous populations were not generally consulted. Even in the area of state-funded health promotion and education programs, few indigenous organizations are contracted to do this work.

Indigenous health insurance companies in Colombia are at a disadvantage relative to the much larger mainstream companies, which also generate considerable revenue from co-payments made by individuals enrolled in the plans. Indigenous companies do not collect individual co-payments but there has been discussion around the possibility that indigenous reserves or municipalities could make financial contributions to the plan on behalf of their constituents.

Coverage is a particularly contentious issue because indigenous authorities hold that the census figures that the government uses to argue that coverage reaches 95 percent of the population are inaccurate. Indigenous organizations argue that coverage is at best 75 percent in some areas, and much less in others.

Several people claimed that maternal mortality had declined since the indigenous insurance organizations started purchasing services, but there is no statistical evidence to support this claim.

In terms of access, the indigenous insurance organizations enroll the most at risk individuals in the community first, recognizing that their resources will not cover everyone. Mothers and children, the elderly, and people with disabilities are the primary groups covered under the schemes. Non-indigenous insurance companies tend to do the opposite; that is, they enroll the healthiest members of the society first and develop mechanisms to exclude or limit coverage for people with pre-existing conditions, who are the most likely to require services.

Access to intercultural health programs is particularly limited in the Amazonia and more remote Andean regions. This is due in part to difficulty in delivering services to remote areas, and in part to the fact that many of these areas are no longer under government control.

When the Colombian government first proposed the insurance schemes, indigenous people were resistant because many believed it was a step towards privatization and would leave indigenous populations without any services. In part, the government's response was to establish the indigenous health insurance companies. Now, the population is quite supportive because they see services improving in many communities.

Although there have been many benefits and achievements, there also are a number of problems. Managing these systems is very difficult and leaders burn out quickly. Leaders are required to invest a significant amount of time in negotiations with the government over resources. Although a certain degree of autonomy has been established, the system requires a high level of accountability in terms of reporting requirements. This may condition indigenous organizations to becoming subordinate to government and may not foster a sense of autonomy. To some extent, the insurance schemes are designed to separate health care from community development and health promotion. Although this has not happened in some areas where the political control over the insurance organizations is strong, it is more likely to happen in areas without strong political development, or where mainstream insurance companies purchase services.

III. Conclusions

Cultural, Funding and Management Approaches to Intercultural Health Service Development

The notion of interculturality has different expressions across the cases studied. In Kwamalasamutu and Pëlele Tëpu, Suriname, we encountered a relatively clear-cut distinction between traditional and western health with the establishment of separate clinics interacting in each village. The informal collaboration between these two separate entities shows an approach that seems to enhance the work of each and that has gained the support of the indigenous community. In Chile, Ecuador and Colombia we found what are, in essence, health care organizations offering intercultural health care services, although each one attempts it in somewhat different ways. The initiative in Guatemala attempts, “unsuccessfully”, to articulate a western health care public institution with indigenous organizations in the area of midwifery.

The governance and management models of the five cases studied parallel the above conclusion. Whereas in Suriname and Guatemala there is one entity in charge of western medicine and another responsible for traditional medicine, in the other three countries indigenous entities manage the delivery of both types of health care. However, in every case, attempts are made at including cultural approaches within the broader health system at all levels. However, this goal is seldom realized and there is considerable evidence that racism and discriminatory practices are institutionalized in hospitals and other areas of the health care system.

In all five countries, the main funding for the delivery of traditional indigenous health care comes mostly from nongovernment donors, fee-for-service, or surplus administrative funds that are reallocated to this purpose. Colombia is a case in point, although most of AIC’s funding comes from the government, intercultural health practices are funded from the marginal surpluses stemming from administrative fees. Rarely does

the government provide any direct funding for traditional indigenous health services. Given the limited and unpredictable nature of this funding, it was the indigenous governance and management of the health delivery entities that facilitated the integration of indigenous health services into the health care system.

Perceptions of Opportunities and Benefits Provided by Intercultural Health Initiatives

The case studies call attention to a number of interesting opportunities provided by intercultural health initiatives. One of these is the opportunity for exchanging knowledge between western and traditional practitioners, which was particularly the case in Suriname and Ecuador (and to a lesser extent in Chile and Colombia). The lopsided arrangement in Guatemala, where western practitioners “train” the *comadronas* limits the possibility for an exchange of information.

The intercultural health initiatives studied also created an opportunity for increasing the trust of community members in the health care system. In Kwamalasamutu, Suriname, trust of both the western and traditional clinics appeared to be strong. This trust originated from community members’ positive experiences with each one of the clinics, but was reinforced by the collaboration between the two. On the other hand, in Guatemala, the lack of trust between the *comadronas* and the health center has hindered progress in intercultural work.

In Colombia, the fact that it was indigenous organizations that were involved in health care delivery and in incorporating western and traditional medicine into the health insurance scheme increased access and improved quality of care. The case of the CRIC/AIC/IPS shows the opportunities that can be made available when indigenous governance and management of healthcare and intercultural health are coupled with reliable fund-

ing. Another benefit is the increased respect given to the indigenous management of health resources. This has had an indirect effect in enhancing indigenous participation in municipal affairs.

In Chile, the political organization of Mapuche communities addressing intercultural health has strengthened their position and has enabled them to improve access to both western and traditional medicine. As well in Cauca, Colombia, CRIC, AIC and the Indigenous IPSs have provided opportunities for Indigenous governance and management of health care, where the intercultural health aspect has played a significant role in achieving community support and respect. In Otavalo, Ecuador, the Jambi Huasi experience has proved valuable in educating western health care staff to Indigenous health and facilitating communication and trust with Indigenous communities.

The benefits can be summarized as an apparent increase in cultural pride among the Indigenous communities, particularly in Suriname, Chile, Ecuador and Colombia. The situation of the Guatemala experience is more ambivalent in this regard. Overall, the revaluing of traditional knowledge and practices and the increased sense of ownership and control appear to provide a wide range of potential benefits.

Among more specific benefits, the articulation of Indigenous and western systems seems to facilitate more timely and appropriate referrals when higher complexity medical care is required. As well, it can help make progress in reducing cultural barriers to access to western hospitals and health centers. In Otavalo, the collaboration of the municipal government with Jambi Huasi and the midwives association has enhanced initiatives of maternal, child and adolescent health. In Cauca, the AIC experience has increased respect towards Indigenous governance and management of health systems, and indirectly enhanced Indigenous participation in municipal affairs. In Temuco, the Makewe initiative has created a new dialogue around the value and role of traditional medicine and the responsibility of Indigenous leadership in health issues.

Perceptions of Constraints and Risks Associated with the Articulation of Indigenous and Western Health Systems

One set of constraints on intercultural health initiatives appeared to be related to the resistance from certain churches to traditional medicine or aspects of it. In the case of Suriname, it was more related to the sidelining of the ceremonial spiritual practices of shamans, not with the use of traditional medicines per se. In the four other countries, the resistance by mostly evangelical Christian churches was at times more overt. Nonetheless, this is not homogenous and there seems to be some disconnect between church leaders that preach against traditional healers and church members that still make use of them. Overall however, these constraints based on religious beliefs do not seem to have seriously limited any of the intercultural health initiatives studied.

Constraints related to health professionals differ across countries for the cases studied. The initiative in Suriname suggested an interesting degree of openness by medical doctors and nursing staff to the opportunities offered by traditional medicine and there was a marked willingness to interact. In Guatemala, western health professionals appeared willing to accept traditional practices but felt that traditional practitioners should work as adjuncts to the western system. The risk here is of assimilation. The Makewe and Boroa experiences in Chile appear to be having an impact on the medical profession in the sense that more recent graduates seem more willing to practice in indigenous settings precisely because of the side-by-side existence of the two medical cultures. In Ecuador, the integration of the western and traditional practitioners appears to work very well at the clinic level, suggesting limited constraints.

In all the cases studied, serious resistance, and indeed racism, exist in the relationship with health personnel at the hospital level, limiting the likelihood that services will be culturally appropriate and that cultural barriers will be reduced. In Colombia, indigenous governance and management of CRIC/AIC/IPSs has produced an important incentive for western health professionals to understand and include intercultural perspectives in

their work, thus reducing possible constraints of this type.

A number of risks and constraints appear to be the result of legal ambiguity and lack of legal clarity for the practice of traditional medicine and for interactions between it and western medicine, as well as of professional regulations. The situation in Chile, where the government is quite favorable to intercultural health initiatives, is not currently of concern, but the ambiguous legal situation places the experiences at risk if the government's position changes. Even in Colombia, where two important pieces of legislation provide reasonable legal backing to intercultural initiatives, the lack of proper secondary regulations supporting an integrated system constrain further developments. Ecuador provides constitutional protections for traditional healers, but there are no clear regulations as to how the public health system can interact with them. In Guatemala, the legislative situation of *comadronas* is unclear, although the public health system seeks to both regulate them through a registration system and entice them to receive training. In Suriname, the lack of a regulatory framework does not seem to have put any constraints on the intercultural initiatives.

In all five countries the lack of proper funding sources and mechanisms creates a number of constraints. This is particularly the case in Guatemala where a very limited state health budget, coupled with limited international sources of funding, has prevented any broad development and articulation between the *comadronas* and the health system. The experience in Colombia suggests that indigenous governance and management of health resources are important to enhance intercultural health. Nonetheless, both non-flexible resource allocations and the lack of 100 percent coverage place significant strains on the system. In Suriname, the traditional clinics would not be in operation were it not for the undertakings of a foreign NGO. This makes the sustainability of the experience a matter of concern. The Makewe hospital in Chile has created an appropriate funding mechanism as a contractor of the public system, and a small portion of these funds sustain the intercultural experience. Nonetheless, because of regulations, it must be creative in its allocations. Although Jambi Huasi is very efficient in its use

of resources, these are quite limited and come mostly from user fees. This places serious constraints in the development of broader and farther reaching intercultural health programs, particularly since, as a private clinic, it does not have access to state funding.

Finally, the lack of adequate data collection systems is a serious constraint to these intercultural health initiatives in terms of planning, operations, evaluation and research. (To a certain extent Suriname is an exception; however, the data is collected by the NGO, not by the government.)

Impacts of Intercultural Health System Development

In four of the five cases studied, the most likely impact of the intercultural health initiatives was increased access to not only traditional medicine but also to western medicine. Guatemala was an exception because the intercultural model did not seem to be functioning properly. The evidence suggested that when indigenous entities are involved in organizing healthcare (as in Chile, Ecuador and Colombia) there was an immediate and significant impact on reducing barriers to access and increasing user satisfaction. Granted, there is a dearth of data to provide better evidence regarding access and other impacts, and as such this is a limitation of most initiatives.

In some specific cases intercultural practices seemed to be cost-effective. The cost of traditional medicines and practitioners vis-à-vis western medicine is minor. Where traditional medicine can resolve health problems the burden on the western system is reduced, and when coupled with proper linkages, traditional medicine can provide appropriate and prompt access. The case studies demonstrate that the systems do not function in opposition to each other. It is a false dichotomy to suggest that funding for intercultural health will undermine western healthcare. On the contrary, the real choice seems to be about investing in inclusive intercultural health care models instead of systems based only on western healthcare.

A positive impact of most intercultural health initiatives was on indigenous community develop-

ment, on revalorization of indigenous knowledge, cultural continuity and increase in their pride as a people. What is interesting is that these initiatives not only seemed to have a positive impact on healthcare, but also on improvements in community participation and organization, which in turn appeared to have an impact on broader health determinants (such as nutrition, employment opportunities, etc).

Since these initiatives appear to be improving access, satisfaction, and treatment options in healthcare, as well as affecting health determinants, it can be expected that they are having a positive impact on health status. Nonetheless it is still necessary to incorporate data collection systems to be able to conduct effectiveness studies of both the systems and of particular practices. None of the health systems in the five countries has adequate data to assess the effectiveness of the western system, let alone the indigenous traditional systems.

The development of appropriate information systems would surely be of assistance to the intercultural health initiatives.

Best Practice Evidence

For an intercultural health initiative to be considered a “best practice” it would need to satisfy the series of criteria (Mable and Marriott, 2001). It should demonstrate a tangible and positive *impact* on the individuals and population served; be *sustainable*; be *responsive* and *relevant* to patient and community health needs and to cultural and environmental realities; be *client focused*, including issues of gender and social inclusion; improve *access*; *coordinate* and *integrate* services; be *efficient* and *flexible*; demonstrate *leadership*; be *innovative*; show potential for *replication*; identify *health* and *policy* it addresses; and have the capacity for *evaluation*.

Table 6. Five Case Study Initiatives Compared Across the Best Practice Criteria

Project Criteria	Shaman's Clinic & MM Clinic (Suriname)	Comadronas Midwifery (Guatemala)	Makewe Hospital Boroa (Chile)	Jambi Huasi/Midwife Association /Yachac Association (Ecuador)	CRIC/AIC/IPS (Colombia)
Impact	√ -	--	√ -	√ -	√ -
Sustainability	√ -	--	√ -	√ -	√
Responsiveness and Relevance	√	√ -	√	√ -	√
Client Focus	√	√ -	√	√	√
Access	√	√ -	√	√ Urban	√
Coordination & Integration	√	--	√	√ -	√
Efficiency & Flexibility	√ -	√ -	√ -	√ -	√ -
Leadership	√ -	√ -	√	√	√
Innovation	√	√ -	√	√	√
Potential for Replication	√ -	√ -	√ -	√ -	√ -
Health/Policy Identification or Resolution	√ -	√ -	√	√ -	√
Capacity for Evaluation	√ -	--	√ -	--	√ -
√ = Criterion met	5	0	7	4	8
√ - = Criterion Partially Met	7	8	5	7	4
-- = Criterion Not Met	0	4	0	1	0

The study understands that a best practice is context dependent, in the sense that it is the best possible response to a particular reality and context including demographic (proportion of indigenous people in the area, etc.), geographic (urban, rural, degree of isolation, concentration of population, etc.), historical (strength of indigenous organizations and communities, country and regional legislation) and environmental (resources and organization, political, social and economic situation of the country) factors. Table 6 provides a summary overview comparing the case studies against the best practice criteria.

Impact refers to the notion that the initiative can demonstrate some tangible and positive impact on the individuals and population served or improvement for providers and staff that can be measured quantitatively and qualitatively. A first serious limitation was the lack of reliable quantitative data across the five cases in both the western medicine and the traditional medicine experiences that would enable some form of impact assessment either at the individual or population level. In this sense, the impact criterion was not met. On the other hand, there was enough qualitative information gathered to reach a tentative assessment of positive impact in Suriname, Chile, Ecuador and Colombia. This was not clear in the case of Guatemala. The positive impact of the intercultural health initiatives was apparent at several levels. It appears to have strengthened indigenous organizations, cultural identity and continuity. Particularly in the case of Chile and Colombia there appears to be better access to primary and secondary care. Conversations with community members provided initial evidence of satisfaction with the initiatives in Suriname, Chile, Ecuador and Colombia, although more rigorous evidence is required. The plausibility of improved health can be deduced because increased referrals to higher complexity care, more culturally appropriate primary care, preventive services and health promotion activities, and improved social/cultural determinants have a positive effect on health. The lack of other empirical evidence limits this criterion.

The initiatives in Colombia and Chile included a plan for their viability and continuity. The traditional health care clinic in Suriname has positive

organizational and economic outcomes, but it depends on external sources of funding. The Jambi Huasi clinic in Ecuador is economically self-sustainable but it achieved this by severely limiting the reach of its programs. Finally, while there are a number of plans for improving the sustainability of the efforts in Guatemala, these have yet to come to fruition.

All five of the cases studied showed a high level of responsiveness to patient and community health needs, as well as to cultural and environmental realities. Despite very different origins, all five initiatives appeared to have emerged in response to the needs of the indigenous communities for access to health services and for strengthening their cultural identities. In at least four of the five cases this resulted from the ongoing struggles of indigenous organizations that were able to take advantage of constitutional and legislative changes to develop systems that seek to respect and integrate western and traditional health models.

The initiatives in all five countries were focused on the client in terms of their sensitivity and the provision of appropriate opportunities for individuals and communities, as well as in terms of providing special attention to the elderly, women and youth. The Colombian and the Suriname experience appeared to be the more successful in this regard, followed by the Chilean and Ecuadorian initiatives. The Guatemalan experience was limited because of difficulties with the public health system.

Access refers to the ability of individuals to obtain the required services at the right place and time in accordance with their needs. Despite the fact that is geographically isolated, the Suriname clinic shows a remarkable level of access. The traditional health care initiative improved access in Chile and Colombia. The Ecuadorian and Guatemalan cases are somewhat more ambiguous in this regard. The mere existence of these initiatives had a positive impact on accessibility and the availability of resources, which helped reduce cultural barriers. However, better data would make it possible to more accurately assess the extent to which access has improved.

The ability to provide uninterrupted, coordinated service across programs, practitioners, organizations and levels of service, over time appears to have been enhanced in most of the cases studied. The largest improvements in coordination and integration took place in Colombia. The Surinamese model shows how two separate organizations are able to work very well together. The Chilean case suggests a degree of progress in this regard. In the Ecuadorian and Guatemalan experiences the level of integration is particularly limited.

Data limitations have hindered the ability to assess the *efficiency and flexibility* of the experiences. That is, it was not possible to ascertain whether the desired results were achieved with the most cost-effective use of resources or the degree to which the initiatives are flexible enough to meet new requirements. The fact that these experiences are essentially community-based and the way that they have developed in response to community requirements suggests that they are more flexible than top-down health systems. Nonetheless, although in most cases there were suggestions of cost-effectiveness (and in the case of Guatemala some basic data to support it), more comprehensive and detailed data needed is required.

Leadership is the ability to initiate, spur, encourage, inspire and become a catalyst for change. Leadership in the context of the five cases studied took different forms but was apparent in all, particularly in Chile and Colombia.

All five cases studied also showed varying degrees of innovation, meeting the requirement of developing new and creative solutions that meet or surpass known standards.

To some extent, all cases can serve as a model for *replication* by others. In fact, the Makewe experience in Chile spurred the Boroa initiative, and the success of Suriname's Kwamala initiative led to its replication in Tepu and elsewhere. However, each initiative is clearly context dependent, so only certain principles and organizational aspects are ultimately replicable.

All cases were attempts to resolve health and policy issue identified by the indigenous communi-

ties. The organizations that were created as a result appear suited to furthering these attempts. This is particularly evident in the cases of Chile and Colombia.

Capacity for evaluation is a measure of outcomes consisting of collecting information to assist in the decision-making process, assessing the effectiveness of strategies and programs, and measuring client satisfaction. As already mentioned, there is a dearth of data and information systems required for proper evaluations. The Suriname experience is the exception, although it is still in the early stages of adequately analyzing the data collected. The Colombian case has potential given the single organizational structure, but lacks resources to implement it. Similarly, the Chilean initiative has more potential for evaluation given that data are collected at the local level. In all cases, the government appears to have a negligible capacity or interest in creating information systems to evaluate intercultural health initiatives and the publicly-funded system.

Benefits and Impacts of Intercultural Health

Individual and Population Health

The case study's design and data limitations only permitted an assessment of plausible impacts. Despite anecdotal evidence, there is no empirical evidence of efficacy, no quasi-experimental studies of effectiveness, and not even good baseline data. We can, nonetheless, extrapolate potential impacts from evidence from other studies that suggest the relevance of social determinants of health, and of increased access and cultural appropriateness in the delivery of care. The scarcity of data in the western health system of the countries visited is of serious concern. Ironically, the health systems under indigenous control appear to have a greater interest in data gathering and, with proper technical and resource support, could develop adequate information systems.

In the absence of information systems that provide systematic outcome data, it is very difficult to assess the impact of indigenous medicine on health. However, in all of the case studies we heard tes-

testimonials from people indicating that the treatment received from indigenous healers helped a variety of illnesses. In particular, indigenous medicine appears to play an important role in resolving the spiritual, psychological and physical consequences of historical trauma, that is, the effects of many decades of violence and genocide in most of the countries included in this report. Indigenous people globally have had similar experiences as victims of colonization, oppression and genocide, and indigenous approaches to healing the whole person are recognized as important strategies for healing.

The concept of cultural continuity has emerged in the scientific literature as a key determinant of the health of indigenous communities (Chandler and Lalonde, 1998). Cultural continuity exists in those indigenous communities that have been able to sustain traditional approaches to health and governance. Intercultural health programs have a clear and important impact on cultural continuity in indigenous communities in Latin America. Based on evidence from indigenous communities in North America, sustaining cultural continuity may have a preventive impact on health problems such as suicide and chronic disease in the long term. Likewise, a connection between socioeconomic status, morbidity and mortality, and locus of control has been pointed out (Mechanic, 1989; Marmot, 1986; Brunner, 1996). Locus of control, or the essential need to have a say in determining one's own destiny, could be considered analogous to the need for self-governance and may be an important determinant of health. The case studies suggest a positive impact on these health determinants. As well, the intercultural health initiatives appear to be playing a significant role in community development, and as such indirectly benefiting population health.

Access to Primary Health Care Services

Intercultural health care models appeared to provide opportunities for extending coverage of primary health care in the case studies examined. In particular, indigenous midwives are responsible for between 50 and 90 percent of births across the countries. Indigenous midwives not only provide technical and family assistance to birthing mothers, but with appropriate support and training from

the western health care system, they also facilitate appropriate referral of women with high-risk pregnancies to western health care facilities. Although our investigation did not show a high degree of integration of indigenous and western health services except in Suriname and Ecuador, we did find evidence that intercultural health programs provided by indigenous organizations increase confidence in the indigenous community that their values and beliefs will be respected when they have to avail themselves of western health services.

Cultural Safety in Western Health Service Environments

All case studies (except Suriname) provided evidence that indigenous people experience considerable racism and discrimination in the context of western health services. Not only does this experience cause psychological and spiritual distress, but also it often inhibits indigenous people from availing themselves of western health services. This was particularly true for pregnant women who routinely refuse to receive hospital services even under the direst of circumstances. The negative consequences that result are often erroneously attributed to the traditional midwife. In all of the case studies, we found that the introduction of intercultural health services has had a positive impact on the emergence of cultural safety as a relevant concept in the provision of health services to indigenous people.

Cultural Protection and Recovery

Intercultural health programs are a key component of indigenous efforts in each country to recover and protect their cosmology and cultural traditions. Traditional healers maintain important leadership roles in communities as elders and carriers of traditional wisdom and knowledge. Maintaining these traditions is vital to the cultural integrity of indigenous communities.

Economic Benefits and Impacts

For the most part, intercultural health initiatives can be relatively inexpensive because indigenous communities prefer to maintain reciprocity and community support as the economic basis for in-

indigenous healing. Organizational development of intercultural health programs has been financed primarily by international NGOs. However, traditional services are often used as a first line of therapy for childbirth, mild to moderate illnesses and psychological distress, at a substantial cost savings to the formal health system. Traditional health practices are both cultural and financial congruent for indigenous populations and tend to be the first choice, particularly in rural environments. Urban indigenous and nonindigenous populations are increasingly utilizing traditional practitioners. One urban health center documented a significant increase (3000) in poor urban indigenous clients who sought the services of the traditional healer, with a secondary result being increased utilization of western health promotion and disease prevention services such as immunizations and PAP exams.

Community Development and Self-Government

In developed countries, despite caution (and sometimes opposition) by indigenous leaders, there has been an increasing movement toward the “integration of indigenous programming into mainstream departments, coupled with decentralized program management.” Mainstreaming attempts to decrease indigenous “claims to legal entitlement and differential treatment” yet has paradoxically resulted in increased autonomy through the development of capacity that results from the assumption of program management roles (Papillon 2004). Perhaps the most important finding from this investigation is that intercultural health programs play a significant role in providing a space within which to create the capacity of indigenous communities to develop autonomous self-governing organizations and communities. Intercultural health programs help to re-affirm the central importance of indigenous spiritual and social values in communities, which in turn provides the confidence required to assert autonomy and independence in relations with the wider society and the state.

Challenges and Constraints in Intercultural Health

Discrimination from the Western Health System

Despite constitutional and legislative changes to increase acceptance of indigenous cultural and traditional medicine practices, and despite attempts to provide cultural sensitivity training to practitioners and administrators, there is little evidence of progress toward acceptance (or even tolerance in some countries) of traditional medicine practices within the established health system. In general, a serious problem is the fact that medicine and other health professions do not receive appropriate initial or ongoing training in cultural sensitivity and lack the understanding that indigenous population have radically different ideologies and practices from those of the western world.

Indigenous Community Factors

There exists a degree of apprehension among indigenous groups about whether traditional medicine should be practiced in contemporary environments such as intercultural health clinics or should be restricted to original community practice environments. Likewise, there were differing opinions regarding the commercial marketing of traditional medicines. Some feel that the separation of traditional medicines and healers from the community environment is not appropriate and indeed reduces the effectiveness of healing. Some feel that, to the contrary, it is appropriate as means to capitalize on marketing traditional medicines for the purpose of community development and self-governance/self-reliance. Ultimately, indigenous communities must resolve these sensitive issues. Should the opportunity of a political and social environment arise that is supportive of intercultural health legislation and regulation, the lack of resolution of the indigenous debate on the usefulness of institutionalizing traditional medicines and practitioners may be a problem. Thus, it is important for indigenous populations in each country to undertake or expand on processes to advance the issue of how access to traditional systems in contemporary society should evolve so that there is no loss of cultural integrity.

Government Policy

Essentially, two systems of health services exist in the countries studied: the unrecognized and unregulated indigenous traditional health system that is widely distributed and extensively utilized, and the formally recognized and regulated allopathic health system that is significantly restricted in its accessibility and scope, particularly outside of metropolitan areas. Allopathic medicine in each country has gone through a process of health reform during the last decade, most often moving toward decentralization and increased privatization. Although all of the countries studied have attempted to maintain a core of first level services (primary health care) either through insurance schemes or contract-based health centers and outposts, there has been a substantial destabilization of the social safety network. In some countries a high proportion of the poor, including indigenous populations, are without adequate access to allopathic health care services. The fact that most indigenous populations, particularly in rural areas, rely on indigenous practitioners as their first choice of therapy has likely mitigated significant consequences from decreased access to allopathic medicine. Generally, government health programs are significantly restricted and indigenous peoples who live in rural and remote areas suffer a disproportionate impact, especially in the case of modern diseases for which traditional health systems have no treatment. This limitation of conventional medical services is related to an overall restricted government financial environment.

At the same time, there are advocates attempting to ensure the retention of indigenous traditional practices as more culturally fitting for significant portions (and sometimes majorities) of the population. Such traditional systems are stable over the long term, having been in place for thousands of years. In all countries, health ministry support for intercultural health and traditional medicine practices exist, but there also seems to be an attitude that the care provided by traditional providers is often perceived only as a temporary extension of the conventional health system. Although there was some understanding of the important cultural role played by these traditional practitioners, one that extends well beyond the health care system, ministries were most interested in utilizing them

to enhance indigenous access to the formal health system (e.g. immunization, health promotion and disease prevention). One of the complicating factors in the policy environment is the gap in communication between the government and indigenous communities. Due to the institutional policy development process, ministry personnel are unable to comment on what/why/whether certain actions are or are not being taken, and what is in the planning stage for further development.

Regulatory Environment

In some countries, constitutional or legal changes that recognize traditional medicine have resulted in minimal or no secondary legislative developments in terms of the establishment of clear regulations about how the health care system might best interact with traditional indigenous practitioners. Such a situation leaves both traditional healers and western physicians without guidance and at risk for litigation when adopting intercultural health practices. Western-trained physicians who do participate in practices with cross referrals to indigenous practitioners are at risk of losing their license to practice medicine. At the same time, traditional practitioners can be accused of practicing without a license and/or contravening health regulations. Although health ministry officials in some countries stated that health regulations either do not apply legally, or are not applied to indigenous healers, there is no real protection for healers should governments and policies change. Thus, it is essential that clear legislation and regulations be developed for adopting intercultural health practices as well as clarifying the relationship between traditional healers and state health regulations. Given the variety of traditional practitioners actively providing services in each country, the development of regulations guiding such practice, in consultation with indigenous populations, is an important avenue to explore.

Obstetrics seems to be the only area in which governments have attempted to clarify the relationship between traditional and allopathic providers. Some governments provide training and licensing to traditional midwives. What the allopathic health system does not seem to grasp is that the traditional midwife (*comadrona/partera*) is an integral part of the traditional health system and

not just a technician who “catches babies.” The *comadrona* works with the pregnant woman, the family, and the neonate, but also plays a leadership role in the community. The tendency toward medicalization of the midwives’ role (i.e., placing them under the control of western practitioners) should be avoided.

Economic Sustainability

Traditional health systems, based historically on a system of reciprocity, have had a sustainable existence for thousands of years. Potential traditional practitioners respond to a spiritual “call to service” and therefore are not motivated by financial gain. The belief is that failure to respond to such a call could result in serious illness. One common reason for not answering the call is lack of family and resources to take on the role of healer, which requires life-long dedication whether in the role of traditional healer (*machi*, shaman, *uachac*), herbalist, bonesetter, or midwife (*comadrona*, *partera*). That the role of healer is a calling rather than a profession or job may be a factor in the sustainability of traditional practices. The issue of economic sustainability of intercultural health experiences is a more complex question that needs to be examined from the perspective of the indigenous communities as well as the government. Communities want to continue to rely on and support traditional health systems for those conditions that are appropriate and culturally based, but at the same time they want access to allopathic services when needed for diseases that have not historically been managed by traditional practitioners. Intercultural health experiences become a point of intersection between traditional and allopathic medicines, as well as of access and coordination between the two. Although most indigenous political organizations stated they did not want traditional medicine to be subsumed in the health system, nor that traditional medicine become dependent on government funding, this must not be interpreted as indicating that indigenous peoples do not want fair access to resources (such as infrastructure) for their own cultural approaches to health promotion and health maintenance. Intercultural health practice sites provide an appropriate avenue for delivery of both traditional and allopathic health maintenance services.

Risks and Limitations of Intercultural Health

Commercialization

Two distinct problems are related to the issue of commercialization. One is what has been identified as “biopiracy” where scientists and corporations use traditional indigenous knowledge to identify medicinal plants. The chemical compounds of these plants are then analyzed, synthesized, patented and marketed in a variety of formats. This raises the serious problem (among other considerations) that those with the traditional knowledge receive no compensation or profits sharing for their intellectual property. In addition, the medical drugs that are later produced by these companies are generally sold at prices that are unaffordable to indigenous communities. The second problem is related to the commercialization of natural drugs and traditional practices by indigenous communities and organizations. The major risk is not the commercialization *per se*, but the loss of the proper cultural context in which such medications and practices are validated and controlled.

Inequities in the Extension of Primary Health Care

Strong indigenous organizations play a central role, particularly in extending western health care coverage. Stronger communities and organizations are better able to lobby for resources (from the state and NGOs) to build or better equip health centers in their areas. The success of these communities simultaneously suggests that the state, regional indigenous organizations and NGOs should monitor these developments to ensure that inequities in health care do not emerge. The stronger and more experienced communities will be more successful at generating resources, but the less organized and experienced communities may be left out. One way to avert this risk is to work with the weaker communities to ensure they have the same access to healthcare resources as other communities. A second issue that emerged in some of the case studies is the accessibility of the poor non-indigenous population to health care. There is a risk that indigenous healthcare systems may not be inclusive of the non-indigenous popu-

lation in the area that may be experiencing similar levels of need.

Institutionalization and Loss of Autonomy

The tension between indigenous and state control of health care is real and needs to be acknowledged. There are two main risks. First is the institutionalization of traditional health, where traditional practices become defined and structured, and ultimately subsumed under western paradigms. It is a risk because it undermines the cosmivision that gives meaning to traditional practices, emptying it of its most powerful elements. The second risk relates to the loss of autonomy of indigenous communities and organizations in terms of how they structure, organize and run health care systems that incorporate both medicines. The value of community control is lost to the logic of state control.

Popularization

The risk is not that traditional health practices become popular among the non-indigenous popula-

tion, but that these practices may be conducted outside of a cultural and community context that properly validates the healers and their practices. For example, there have been cases of unqualified practitioners offering a variety of alternative health services that may include modified aspects of indigenous medicine. These “illegitimate” practices are sometimes confused with indigenous medicine by the larger society and negative perceptions may emerge. Properly implemented intercultural health models are able to monitor, control and address these risks.

Iatrogenic Effects of Indigenous and Western Health Care Practices

There is always a potential risk of iatrogenic consequences regardless of the system of medicine followed. This risk is increased when there is a lack of proper articulation across the two systems. Consequently, intercultural health models need to have proper monitoring systems within and across the two health systems to minimize iatrogenic risks.

IV. Recommendations

Development of a Culturally Appropriate Regulatory Environment

While some countries (Chile, Ecuador, Colombia) have established a constitutional basis for the traditional health system and the work of traditional practitioners, none has moved very far toward developing regulations under existing indigenous legislation or amending the national health regulations to accommodate such constitutional changes. One country (Ecuador) has established special provisions in the national health regulatory system to ensure that traditional practitioners are not arrested for practicing traditional medicine. Others simply do not apply health regulations to indigenous healers; a practice that indigenous leaders argue is only sustainable if it is acceptable to the current government. Yet others (Suriname) take the position that the decision of whether to rely on traditional or alternative health services is a personal issue.

The ministries of health of some countries have also endeavored to provide cultural sensitivity training to allopathic health personnel and other government departments, but evidence of positive results is sketchy. These same ministries develop policies that are to be implemented at the regional and local levels, but again there is little evidence that these policies are being acted upon. Indigenous populations still appear to avoid utilizing allopathic health services because of poor treatment and racism. The gap in regulations results in significant confusion on the part of allopathic health professionals who believe that, by law, they cannot interact with traditional health practitioners. Those who choose to interact with traditional practitioners are at risk for professional censure. Likewise the gap leaves traditional practitioners in a very vulnerable position. Additionally, without sound policy and regulations, no avenue other than the general litigation system is available to patients in the event that they experience adverse outcomes from traditional practices.

There is an urgent need for clear intercultural health and traditional health regulations that articulate specifically how and when traditional and allopathic health systems could and should interact and/or complement one another. This *regulatory framework* should include the areas of: indigenous representation in national health strategies dialogues; equity for indigenous populations relative to public health expenditures; access to culturally based holistic health approaches; indigenous management of health services financing including traditional health services; indigenous and allopathic (i.e. intercultural) dialogue and mutual capacity building; allopathic institutional cultural competency; development and implementation of data instrument for monitoring intercultural, allopathic (particularly for indigenous populations) and traditional services, including for rural indigenous populations; and medicinal plant production/processing and intellectual property rights.

Contractual Models for Promoting Indigenous Autonomy in Health System Development

International experience has shown that contractual models in indigenous health governance help promote independence and autonomy (Lavoie, 2004). Our investigation indicates that the Colombian approach to contracting with indigenous organizations to provide both health insurance and western health services has also resulted in strengthened indigenous organizations and in a relatively comprehensive, accessible, and culturally appropriate health care system for indigenous communities. Despite difficulties and limitations, the Colombian model was the one that best approached best practice standards in intercultural health.

A contractual approach was also observed in Chile, where indigenous communities were able to enter into contracts with the government to provide primarily western health services in sev-

eral regional and community clinics. However, the Chilean model tends to reward communities with stronger and more outspoken leaders and has the potential for creating significant regional inequities in the provision of health services to indigenous communities. A contractual approach to the provision of western health services was also evident in Suriname but contracts were not with indigenous organizations.

In both the Colombian and Chilean situations, indigenous organizations have managed to support indigenous healers and practices through surplus funding resulting from efficient management of their western health service contracts with the government. However, reforms are needed in both countries to enable indigenous health service providers to include intercultural health programs in their contractual agreements. In general, we found that these contractual agreements facilitated a more integrated, widely accessible, and sustainable approach to intercultural health programming, than we found in the other case studies where intercultural health programs rely either on fee-for-service or contributions from international NGOs. We recommend that government policies seek to strengthen the independent and autonomous development of regional indigenous intercultural health systems that are available to indigenous communities.

Support Shifting Western Health Systems toward Intercultural Health Programs and Practices

With the exception of Suriname, discrimination by western health care practitioners and administrators against indigenous healers and practices was a major constraint on the successful implementation of these programs in all the countries studied. In some instances, discrimination was the direct cause of otherwise preventable morbidity and mortality. This was the case in situations where indigenous people avoid contact with western practitioners. Even in situations where western health care providers professed support for intercultural programs, they were quick to blame indigenous health care practitioners for morbidity and mortality due to problems that resulted from poor referral practices. Specifically, negative out-

comes were referred to as “healer’s iatrogenic problems.” However, our investigations suggest that when referral problems occurred, they were more likely the result of refusal by indigenous clients to avail themselves of western services out of fear that they would be treated poorly and without respect.

In several of the case studies (Guatemala, Chile and Ecuador) there are government initiated efforts underway to provide cultural orientation to health service workers who are directly involved in providing services to indigenous persons. Our investigations indicate that these efforts could be significantly strengthened if indigenous organizations played a greater role in the design and implementation of cultural orientation programs. In all of the case studies, indigenous organizations involved in providing intercultural health services had effective ideas and programs for ensuring that western providers were able to work with indigenous healers in their organizational structures. However, these efforts were not systematically adopted across the training and service provision structures.

It was also evident that most of this cultural orientation effort is focused on western health care practitioners who are already in practice. With some notable exceptions (Chile), there appears to be relatively little attention being paid to this issue at the training level. Universities and other training institutions need technical advice and resources to include more cultural orientation programming in their curricula. These innovations will be most effective if they involve indigenous organizations in the design and delivery of the programs.

Support Indigenous Organizations and Communities in the Development of Health Programs

Past and current experience regarding the lack of respect for indigenous cosmovisions and traditional practices has led indigenous communities to have very little trust in the government. Some respondents opined that with a minimal investment of resources, the government is attempting to co-opt traditional practices for its own purposes. It

was clear that governments tend to view support for traditional practices as a means of extending the reach of allopathic medicine. There is also a tendency for governments to consider that their mobilization of indigenous communities (including the use of traditional practice as a conduit for allopathic health services and health promotion) is successful in providing services to underserved communities. However, indigenous leaders do not consider programs that lack self-governance to be successful. In addition, when indigenous communities mobilize of their own initiative and demand access to culturally appropriate health services and health promotion, authorities often see this as agitation (and even aggression) that must be suppressed. Even in recent years, the suppression of indigenous demands has sometimes taken a violent turn.

Given the discussion on cultural continuity as a determinant of health, and the locus of control relationship with morbidity and mortality, the need for indigenous control over health services is critical. A current problem is the tendency for governments to bypass indigenous political bodies in favor of developing ministerial appointed advisory committees, which operate at a level of collaboration in program development rather than empowerment at a governance level. At the same time, technical health organizations governed by indigenous groups, which have human resource capacity, are often called upon to play roles that are more appropriate to indigenous political bodies. This leaves indigenous health services and political bodies at risk for both inter-group tension and disruption, or even potential failure. When a health service is playing a role that is more appropriate to a political entity, its resources are being taken away from their primary purpose, which is service provision. When government is not providing access to resources for the active participation of indigenous peoples through their chosen political bodies, these bodies are not positioned to carry out the role of advising indigenous health services on key policy questions, including those that go beyond the health sector but affect it. This creates instability in the health service environment.

Indigenous health service organizations may feel less stress if they are able to act in an advisory

capacity to their indigenous political leadership who, in turn, could more appropriately advise the health service sector of key policy issues from a broader perspective.

Provide Technical and Financial Support to Develop Information Systems for Monitoring, Evaluation and Research Purposes

A common situation encountered both at the national level and at the level of health care settings across the five cases studied was the lack of good and comprehensive data on the health status of indigenous people and health services delivery. Most case studies showed some attempt to gather information, but were quite limited in scope. National, regional, and community-wide censuses need to be designed to gather information that captures valid socio-demographic and economic data on indigenous people. Technical and financial support to governments and indigenous organizations could also help create a proper public health surveillance information system. Health surveys are also needed to gather data on the social determinants of indigenous health, on indigenous use of western and traditional health systems, on possible barriers to access, outcomes, and other indicators. Health care delivery organizations need technical and targeted financial resources to develop information systems for planning, monitoring, evaluation, and research purposes. Strengthening of monitoring and information systems can be achieved through collaborations with governments, indigenous organizations, universities (national and foreign), NGOs and international development organizations. As well, experimental and quasi-experimental studies on efficacy, effectiveness, and efficiency should also be pursued in specific cases, within a context of mutual respect between the different paradigms of knowledge. A basic criterion for the successful implementation of these information systems is the involvement of key stakeholders (particularly, indigenous organizations and communities, health officials, and health care delivery organizations) in their design and use, as well as in the interpretation of the data. The need for valid and reliable information cannot be overstated.

**Support the Exchange of Ideas and Models
Across Latin American Countries and Between
North and South America**

Evidence from the case studies showed the importance of the dissemination and exchange of ideas and models. Many of the best practices examined had been positively influenced by other experiences within the same country and/or from other countries. Yet, more exchanges are required to expand, improve and strengthen intercultural health models. These exchanges should cover technical, cultural, and political dimensions. In

particular, we recommend the exchange of intercultural health experiences among indigenous organizations and communities, and among municipalities and regions, within and across the countries of Latin America, North America and the Caribbean. As well, investment in educational exchanges particularly (although not exclusively) of health professionals, of traditional healers, of medical, nursing and other health care students, of health administrators and researchers, and of indigenous leadership responsible for health, could be of significant benefit.

V. Bibliography

- Alderete, E. 1996. The Formulation of a Health Research Agenda by and for Indigenous Peoples: Contesting the Western Scientific Paradigm. *The Journal of Alternative and Complementary Medicine*. 2(3): 377-385.
- Asociación de Cabildos Genaro Sánchez. 2005. *Proyecto fortalecimiento del sistema de producción y trueque de alimentos limpios del pueblo indígena Kokonuko - zona Centro Cauca*. Cauca, Colombia.
- Asociación de Cabildos Indígenas del Norte del Cauca. 2004. *Nuestras plantas, nuestra medicina*. Cauca, Colombia.
- _____. 2001. *Los regalos del sol*. Programa de Salud de la Asociación de Cabildos Indígenas del Norte del Cauca. Cauca, Colombia: Valderrama Impresionamos.
- _____. 2000a. *Sembrando semillas*. Cauca, Colombia: Valderrama Impresionamos.
- _____. 2000b. *Frutos de nuestra tierra*. Programa de Salud de la Asociación de Cabildos Indígenas del Norte del Cauca. Valderrama Impresionamos
- _____. 1999. *Alimentemos la vida*. Toribio, Colombia.
- Asociación Indígena para la Salud Makewe. 2000. *Curso en salud y pensamiento Mapuche (programa general)*. Región de la Araucanía, Chile.
- Astin, J., et al. 1998. A Review of the Incorporation of Complementary and Alternative Medicine by Mainstream Physicians. *American Medical Association*. 158(21): 2303-2310.
- Barret, B. 2003. Alternative, Complementary, and Conventional Medicine: Is Integration Upon Us? *The Journal of Alternative and Complementary Medicine*. 9(3): 417-427.
- Bartlett, J. 2003. Involuntary Cultural Change, Stress Phenomenon and Aboriginal Health Status. *Canadian Journal of Public Health*. 94(3): 165-167.
- Basso, E. 1977. Introduction: The Status of Carib Ethnology. In *Carib-Speaking Indians: Culture, Society, and Language*. Anthropological Papers of the University of Arizona, no.28. Tucson: University of Arizona Press.
- Battiste, M. and Henderson, J. Y. 2000. *Protecting Indigenous Knowledge: A Global Perspective*. Saskatoon, Saskatchewan: Purich Press.
- Batzin, R. 2004a. *La mejor práctica de salud intercultural estudio de caso Guatemala: plan de actividades visita de campo para la recolección de datos, 20 al 27 de noviembre de 2004*. Unpublished Document. Guatemala, BID, Working Paper.
- _____. 2004b. *La mejor práctica de salud intercultural estudio de caso Guatemala: Prácticas y modelo de las comadronas de San Juan Comalapa*. Unpublished Document. Guatemala, BID, Working Paper.
- Bittle S., Quann N., and Hattem, T. 2002. *A One-Day Snapshot of the Aboriginal Youth in Custody Across Canada*. Department of Justice, Ottawa, Canada.
- Brunner, E. 1996. The Social and Biological Basis of Cardiovascular Disease in Office Workers. In Blane, D., Brunner, E. and Wilkinson, R.G. (Eds.), *Health and Social Organization: Towards a Health Policy for the Twenty-first Century* (pp. 272-299). London, England: Routledge.
- Castillo, H. 1999. *Guía para la capacitación a comadronas en salud materno infantil y reproductiva*. Chimaltenango, Guatemala: Asociación de Servicios Comunitarios de Salud.
- Centro Panamericano de Ingeniería Sanitaria y Ciencias del Ambiente. 2003. *La salud de las poblaciones indígenas*. Quito, Ecuador: Centro Panamericano de Ingeniería Sanitaria y Ciencias del Ambiente and Washington, D.C.: Pan American Health Organization.
- Cifuentes, M., et al. 1992. *Medicina andina: Situaciones y respuestas*. (First edition). Quito, Ecuador: Albazul Offset.

- Conejo, M. 1999. *Mujer más allá del año 2000*. (Rep. No. 1). Centro de Medicina Alternativa JAMBI-HUASI FICI . Otavalo, Ecuador: Imprefepp.
- _____. 1998. *Población indígena y reforma del sector salud. El caso de Ecuador*. Washington, D.C.: Pan American Health Organization.
- Confederación Nacional de Organizaciones Campesinas. 2004a. *Mis derechos y deberes ciudadanos*. Quito, Ecuador: Fondos de las Naciones Unidas para la Infancia.
- _____. 2004b. *Nacemos y caminamos, crecemos y aprendemos*. Quito, Ecuador.
- _____. 2004c. *Nos gusta ser niños y niñas*. Quito, Ecuador: Fondos de las Naciones Unidas para la Infancia.
- _____. 2003. *Pensamientos de la Fenocin*. Quito, Ecuador.
- Congreso de los Pueblos Kichwas de la Sierra Norte del Ecuador. 2003. *Chinchaysuyu Jatun Ayllu Llaktakunapak Tantariy Inrujta Fici*. Otavalo, Ecuador.
- Consejo Nacional de las Mujeres. 2003. *Ley de Maternidad Gratuita y Atención a la Infancia*. Quito, Ecuador: Visión.
- Dei, G., Hall, B., and Rosenberg, D. 2000. *Indigenous Knowledges in Global Contexts*. Toronto: University of Toronto Press.
- Díaz, L., Sáez, M., and Herrera, G. 2000. *Primer Seminario Nacional de Salud Intercultural y Políticas Públicas*. Santiago. Ministerio de Planificación and Ministerio de Salud.
- Eder, K. 2003. *Model of Indigenous Maya Medicine in Guatemala*. Guatemala City, Guatemala: Asociación de Servicios Comunitarios de Salud.
- Eder, K., and Pú M.M. 2003. *Model of Indigenous Maya Medicine in Guatemala*. Guatemala City, Guatemala: Asociación de Servicios Comunitarios de Salud.
- Encalada, E., García, F., and Ivarsdotter, K. 1999. *La participación de los pueblos indígenas y negros en el desarrollo del Ecuador*. 1999. Washington, D.C.: Documento de trabajo.
- Fontanarosa, P. 2001. Publication of Complementary and Alternative Medicine Research in Mainstream Biomedical Journals. *The Journal of Alternative and Complementary Medicine*. 7(1): 139-143.
- Frideres, J. 1993. *Native Peoples in Canada: Contemporary Conflicts*. (4th ed.) Scarborough: Prentice Hall Canada Inc.
- Gerstenberg, B. 2004. *Evaluación del decenio internacional de los pueblos indígenas del mundo, caso Guatemala*.
- Giordano, J., et al. 2003. Complementary and Alternative Medicine in Mainstream Public Health: A Role for Research in Fostering Integration. *The Journal of Alternative and Complementary Medicine*. 9(3): 441-445.
- Glei, D. and Goldman, N. 2000. Understanding Ethnic Variation in Pregnancy-Related Care in Rural Guatemala. *Ethnicity & Health*, 5, 5-22.
- Government of Chile. 2004a. Bill/Resolution M. d. S. 1605. Santiago.
- _____. 2004b. *Indicadores básicos de salud 2003*. Santiago.
- _____. 2003a. *Orientaciones. Programa nacional de salud y pueblos indígenas. Año 2003*. Documento de Trabajo. Santiago.
- _____. 2003b. *Indicadores básicos de salud 2002*. Santiago.
- _____. 2002a. *Programa de salud y pueblos indígenas. Estado de avance y evaluación 2001*. Santiago.
- _____. 2002b. *Programa de salud y pueblos indígenas*. Santiago.
- _____. 2001. *Salud y pueblos indígenas: Logros y desafíos en la región de las Américas*. Santiago: Ministry of Health and Washington, D.C.: Pan American Health Organization.
- _____. 2000. *Encuesta de calidad de vida y salud. Chile 2000*. Santiago.
- _____. 1996. *Primer encuentro nacional de salud y pueblos indígenas*. Servicio de Salud de la Araucanía. IX Región.

- Government of Colombia. 2004. *Insumos para la conceptualización y discusión de una política de protección social en salud para los grupos étnicos de Colombia*. (Rep. No. 1. Bogotá: Ministry of Social Protection and Washington, D.C.: Pan American Health Organization.
- _____. 2003. *Situación de Salud en Colombia, Indicadores Básicos 2002*. Bogotá: Ministry of Health.
- _____. 2002a. *Situación de Salud en Colombia Indicadores Básicos 2001*. Bogotá: Ministry of Health.
- _____. 2002b. *Situación de Salud en Colombia, Indicadores Básicos 2003*. Bogotá: Ministry of Social Protection.
- Government of Ecuador. 2004a. *Boletín APS, Boletín Ecuatoriano de Salud Pública y Desarrollo de Sistemas de Salud* (Rep. No. 10. Quito: Ministry of Public Health.
- _____. 2004b. *Marco General de la Reforma Estructural de la Salud en el Ecuador*. 2004. Quito, Ecuador: Ministry of Public Health and Consejo Nacional de Salud.
- _____. 2002 *Jambirinamanta*. Quito: Ministry of Public Health and Dirección Nacional de Salud de los Pueblos Indígenas.
- Government of the Municipality of Otavalo. 2003. *El Valle del Amanecer*. Otavalo, Ecuador.
- Harlan, W. 2001. Editorial. *The Journal of Alternative and Complementary Medicine*. 7(1): 1-4.
- Hendon, C. 2002. The Preservation, Promotion, and Integration of Traditional Medicine in Amerindian and Maroon Communities of Suriname, South America. In Zuluaga, G. and Correal, C. (Eds.). *Seminario Internacional de Etnomedicina: Aproximación al conocimiento de sistemas tradicionales de salud (Memorias)* (pp. 101-114). Bogotá, D.C.: The Amazon Conservation Team.
- Herbert, C.P. 1996. Community-based Research as a Tool for Empowerment: the Haida Gwaii Diabetes Project Example. *Canadian Journal of Public Health*. 87(2): 109-112.
- Hernández, I. 2003. *Autonomía o ciudadanía incompleta, el Pueblo Mapuche en Chile y Argentina*. Santiago, Chile: Pehuén.
- Hernández, M. 2002. Reforma sanitaria, equidad y derecho a la salud en Colombia. *Cad. Saude Publica*, 18, 991-1001.
- Hill, M. 2003. *Traditional Medicine in Contemporary Contexts, Protecting and Respecting Indigenous Knowledge and Medicine*. National Aboriginal Health Organization. Ottawa.
- Icú-Perén, H. 2004a. *La mejor práctica de la salud intercultural. Estudio de caso: Practicas modelo: Las comadronas de San Juan Comalapa, Producto No. 1*. Unpublished Document. Guatemala, BID informe de consultoría.
- _____. 2004b. *La mejor práctica de la salud intercultural. Estudio de caso: Prácticas modelo: Las comadronas de San Juan Comalapa, Producto No.3*. Guatemala, BID informe de consultoría.
- Indian and Northern Affairs Canada 2002. Communications Branch, Words First: An Evolving Terminology Related to Aboriginal Peoples in Canada. Available at <http://www.ainc-inac.gc.ca/pr/pub/wf/>.
- Instituto Ecuatoriano de Seguridad Social. 2002. *Perfil de facilidad sectorial de Ecuador*. Quito: Dirección del Seguro Social Campesino.
- Iwasaki, Y., Bartlett, J., and O'Neil, J. 2004. An Examination of Stress Among Aboriginal Women and Men with Diabetes in Manitoba, Canada. *Ethnicity and Health*, 9(2): 189-213.
- Jagtenberg, T. and Evans, S. 2003. Global Herbal Medicine: A Critique. *The Journal of Alternative and Complementary Medicine*. 9(2): 321-329.
- Kroeger, A. 1982. South American Indians Between Traditional and Modern Health Services in Rural Ecuador. *PAHO Bulletin*. 16 (3): 242-254. Pan American Health Organization, Washington, D.C.
- Kronenberg, F., et al. 2001. A Comprehensive Information Resource on Traditional, Complementary, and Alternative Medicine: Toward an International Collaboration. *The Journal of Alternative and Complementary Medicine*. 7 (6): 723-729.
- Lavoie, J. 2004. Governed by Contracts: The Development of Indigenous Primary Health Services in Canada, Australia and New Zealand. *Journal of Aboriginal Health*. 1(1): 6-28.

- Llancaqueo, V. 1997. *Situación de salud de los pueblos indígenas de Chile*. Washington, D.C.: Pan American Health Organization.
- Mable, A. and Marriott, J. 2001. A Path to a Better Future: A Preliminary Framework for a Best Practices Program for Aboriginal Health and Health Care. National Aboriginal Health Organization. Ottawa.
- Marmot, M.G. 1986. Social Inequalities in Mortality: The Social Environment. In R.G. Wilkinson (Ed.), *Class and Health: Research and Longitudinal data* (pp. 21-33). London: Tavistock Publications.
- McChesney, R. 1995. In Guatemala, A Time to Mourn. *America*. 172 (16): 18-21.
- Mechanic, D. 1989. Socioeconomic Status and Health: An Examination of Underlying Processes. In Bunker, J.P., Gomby, D.S., and Kehrer, B.H. (Eds.), *Pathways to Health: The Role of Social Factors* (pp. 9-26). Menlo Park, California: The Henry J. Kaiser Family Foundation.
- Mella, I. and Matamala, J. 1990. *Manual de alimentación tradicional mapuche*. Santiago. Government of Chile, Ministry of Health.
- Mishra, S., Hess, J., and Luce, P. 2003. Predictors of Indigenous Healer Use Among Samoans. *Alternative Therapy Health Medicine*. 9(6): 64-69.
- Municipality of Pueblo Bello. 2003. *Encuentros de saberes. El pensamiento tradicional, vía para la paz*. Pueblo Bello, Cesar.
- National Aboriginal Health Organization. 2002. *Urban Aboriginal Health Centres Meeting*. Available at <http://www.naho.ca>.
- Nigenda, G., et al. 2001. The Practice of Traditional Medicine in Latin America and the Caribbean: The Dilemma Between Regulation and Tolerance. *Salud Pública de México*. 43(1): 1-10.
- Padilla, C. and Sáez, M. 2002. *Segundo Encuentro de Epidemiología e Interculturalidad*. 2002. Santiago: Government of Chile, Ministry of Health.
- Pan American Health Organization. 2002. *Traditional, Complementary and Alternative Medicines and Therapies*. (Rep. No. 21). Washington, D.C.
- _____. 1998. *Situación de salud de los pueblos indígenas de Ecuador*. Washington, D.C.
- _____. 1998. *Situación de salud de los pueblos indígenas de Guatemala*. Washington, D.C.
- _____. 1998. *Situación de salud de los pueblos indígenas de Chile*. Washington, D.C.
- Papillon, M. and Cosentino, G. 2004. *Lessons from Abroad: Towards a New Social Model for Canada's Aboriginal Peoples*. (Rep. No. 40). Ottawa: Canadian Policy Research Networks.
- Plaza, B. et al. 2001. Managed Competition for the Poor or Poorly Managed Competition? Lessons from the Colombian Health Reform Experience. *Health Policy and Planning*. 16(2): 44-51.
- Puertas, B. and Schlessler, M. 2001. Assessing Community Health among Indigenous Populations in Ecuador with a Participatory Approach: Implications for Health Reform. *Journal of Community Health*. 26(2): 133-147.
- Rivière, P. 1981. 'The Wage of Sin Is Death': Some Aspects of Evangelization among the Trio Indians. *Journal of the Anthropological Society of Oxford*, XII: 1-13
- Romanow, R. 2002. A New Approach to Aboriginal Health. In the Commission on the Future of Health Care in Canada. National Aboriginal Health Organization. Ottawa.
- Rosa, R. and Alberto, I. 2004. Universal Health Care for Colombians 10 years after Law 100: Challenges and Opportunities. *Health Policy*. 68(2): 129-142.
- Royal Commission on Aboriginal Peoples. 1996. *Traditional Health and Healing*. Vol. 3. Appendix 3A.
- Smith, L. T. 1999. *Decolonizing Methodologies: Research and Indigenous Peoples*. London: Zed Books, Ltd.
- Smylie, J. et al. 2004. Health Sciences Research and Aboriginal Communities: Pathway or Pitfall? *Obstetrics Gynecology Canada*. 26(3): 211-216.
- Statistics Canada. 2001. *Aboriginal People of Canada: A Demographic Profile*. Statistics Canada Catalogue: 96F0030XIE2001007 P.5. Ottawa.
- Tetzaguic, M. 2003. *Cultural e interculturalidad en Guatemala*. Guatemala: Instituto de Lingüística y Educación, Universidad Rafael Landívar.

- Trotti, J. 2001. Compensation Versus Colonization: A Common Heritage Approach to the Use of Indigenous Medicine in Developing Western Pharmaceuticals. *Food and Drug Law*. 56(3): 367-383.
- UN Commission on Human Rights. 2000. *The Situation of the Mapuche in Chile*. 56th Session of the Commission, Item 7. Geneva.
- Waldram, J. B. 1997. *The Aboriginal People of Canada: Colonialism and Mental Health*. New York: Plenum Press.
- Wheatly, MA. 1991. Developing an Integrated Traditional/Clinical Health System in the Yukon. *Arctic Med Res*. 217-220.
- World Health Organization 2002. *WHO Traditional Medicine Strategy 2002-2005*. Geneva.
- _____. 2001. *Overall Health System Achievement for 191 Countries*. (Rep. No. 28). Geneva.
- Yin, RK. 1991. *Case Study Research: Design and Methods*. (Vol. 5) Newbury Park: Sage Publications.
- Zúñiga, F. and Catrilaf, R. 2003. Carta a los pastores y miembros de las iglesias cristianas de Makewe. Makewe: Asociación Mapuche para la Salud. March 21.

Annex

Table A.1. Case Study Plan

Issue	Statement for Testing	Indicators
Approaches to culturally appropriate health services.	Models for providing culturally-appropriate health services Indigenous communities are viable.	Evidence of cultural appropriateness of services. Health services at different sites incorporate cultural practices specific to the indigenous populations they serve. Evidence of effective use of intercultural health care services. Evidence of support for the model.
Opportunities provided by the articulation of traditional and conventional medical practices for indigenous health systems.	There is a good articulation of traditional and conventional medical practices. Health systems are enhanced by the articulation of traditional and conventional medical practices.	Evidence of adequate communication among practitioners of conventional and traditional health care Evidence of proper physical settings that facilitate the articulation between conventional and traditional health care. Evidence of positive experience with both practices by indigenous populations when using health care services. Evidence of improved access to health care because of the articulation between both types of practice. Evidence of good quality of care across both types of practices. Evidence of good patient satisfaction with the combined practices.
Constraints faced in the articulation of traditional and conventional medical practices for indigenous health systems.	The articulation of traditional and conventional medical practices requires overcoming specific constraints both internally and externally.	Evidence of broader obstacles to implement the articulation of traditional and conventional practices. Evidence of difficulties in combining both types of practices. Evidence of resistance to articulate both practices from health care workers. Evidence of structural barriers in national health systems. Evidence of professional resistance to intercultural practice.
Approaches in health services funding and management.	There are a variety of successful models for funding and managing culturally-appropriate health services.	Funding formulas for culturally-appropriate health services are adequate and sufficient. Different management models of culturally-appropriate health services are congruent with multicultural approach. Flexibility in allocation of resources across programs Financial accountability frameworks.
Constraints in health services funding and management.	There are many constraints around funding culturally-appropriate health services that need to be overcome, along with limitations in management practices.	Funding of culturally-appropriate health services is resisted by other sectors. Funding of culturally-appropriate health services is resisted by the health care sector. Funding formulas are inadequate for multicultural approaches. Management models are inappropriate for multicultural approaches.

Table A.1. Case Study Plan

Issue	Statement for Testing	Indicators
Opportunities in health services funding and management.	There are secure sources for funding culturally-appropriate health services and sound management practices are followed.	Strategies for training and capacity-building. Evidence of sustained funding. Evidence that funding formulas adapt to multicultural approaches. Evidence that management practices are congruent with multicultural approaches.
Legal regulatory framework related to traditional medicine practices and culturally appropriate health services.	There are clear and adequate regulatory frameworks for the provision of traditional medicine practices and culturally-appropriate health services.	Professional regulatory bodies have regulations that allow health professionals to work with traditional medicine practitioners. Government regulations recognize the articulation of traditional and conventional medicine practices and provide legal guidance. Profession organization oversight appropriate Cultural systems for peer evaluation of traditional practitioners.
Adjustments in service delivery to accommodate cultural practices.	The delivery of health services effectively accommodates different cultural practices.	Evidence in health care setting of accommodating different cultural practices, (e.g., referrals). Modes of delivery of health care are not standardized to conventional practices. Indigenous people indicate that they feel that their cultural practices were respected by health personnel. Recognition of cultural diversity in client population.
Benefits of initiatives that articulate indigenous medicine and conventional health services.	The articulation of indigenous medicine and conventional health services has produced tangible improvements in health care for the population served and to the health system.	Evidence of more creative responses to health needs. Evidence of improved health outcomes. Evidence of better quality of care. Health system is viewed positively by indigenous population. Evidence that the health system includes processes that seek to further the improvement of health care delivery.
Risks faced by initiatives that articulate indigenous medicine and conventional health services.	The articulation of indigenous medicine and conventional health services pose some health and legal risks.	Examples of risk management and resolution of problems. Legal threats have been posed against culturally-appropriate practices. Evidence of backlash by health care professional groups.
Health systems based on indigenous people's parameters and cultural concepts of well-being, illness, and death.	The health systems effectively incorporate in their practices and values indigenous parameters and cultural concepts of well-being, illness, and death.	Evidence that health personnel respect indigenous cultural values of well-being, illness and death. Evidence that the health system has adapted to foster indigenous practices. Modes of organization of the health care setting reflect indigenous cultural concepts. Health system's interpretation of health and illness is congruent with indigenous interpretations.
Cost-effectiveness of intercultural health experiences.	Intercultural health initiatives are more cost-effective compared to conventional practices.	Comparison of cost data and health outcomes of intercultural health initiatives versus conventional practices is favorable to the former.
Impact of intercultural health experiences on health status.	Intercultural health initiatives have positively impacted the health status of Indigenous populations.	Outcome measures indicate positive health results Measures comparing health outcome between intercultural health initiatives and non-intercultural settings suggest better results for the former.

Table A.1. Case Study Plan

Issue	Statement for Testing	Indicators
Access to intercultural health services.	Indigenous populations have unrestricted access to intercultural health services.	Indigenous populations report few difficulties in accessing intercultural health services. Evidence that barriers to accessibility have been addressed or are in the process of being addressed.
Community, gender, and individual satisfaction of intercultural health services compared to conventional health services.	Indigenous communities and individual Indigenous men and women are more satisfied with the intercultural health services compared to conventional health services.	Indigenous populations report better satisfaction with services received at intercultural settings compared to conventional settings. Similar results are seen in females and males.