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**INTERNATIONAL HEALTH ORGANIZATIONS AND INDIGENOUS
POPULATIONS:
AN EXAMINATION OF PARAGUAY**

**BY
LISA JANE NELSON**

**B.A. (YALE UNIVERSITY) 1990
M.P.H. (UNIVERSITY OF CALIFORNIA AT BERKELEY) 1993**

**A THESIS SUBMITTED IN PARTIAL SATISFACTION OF THE REQUIREMENTS
FOR THE DEGREE OF
MASTER OF SCIENCE
IN
HEALTH AND MEDICAL SCIENCES
IN THE
GRADUATE DIVISION
OF THE
UNIVERSITY OF CALIFORNIA AT BERKELEY**

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Thank you for the statement and request for exemption that you submitted to the Committee for the project referred to above. As described in the statement, your research satisfies the Committee's requirements under Exemption #3, page 3, of our Guidelines of August 1993. Accordingly, the project is exempt from further Committee review provided that there are no changes in the use of human subjects.

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Austin Ranney

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ACKNOWLEDGEMENTS

Many people have supported and encouraged this research over the years. At Berkeley and UCSF, I would like to thank my thesis committee: Alain DeJanvry, Margarita Melville, and, in particular, Judith Justice, who provided guidance, encouragement, and a wealth of knowledge over the last few years. Many thanks also to my classmates, professors, the JMP staff, and all of those in the Joint Medical Program who have supported and taken an interest in this research.

So many people in Paraguay have given so much over the years that it would be an impossible task to thank every one of them. I do wish, however, to thank a number of people in particular. Beate Lehner and Balbino Vargas Zárate opened their home and their lives to me on two occasions (1990-1991 and 1993-1994), shared with me their profound knowledge of Pai culture and indigenous communities, and encouraged this research at all stages of its development. In addition, Hugo Medina Huerta and Luis Medina Huerta also shared their many years of experience among the Pai Tavytera with me, and they and their families provided many warm words of encouragement. The Rolón family also opened their home and their lives to me in 1990-1991. Many people in the Proyecto Pai Tavytera (PPT), SAI (Servicio de Apoyo Indígena), Mision de Amistad, INDI, non-governmental organizations, and Ministry of Health shared their invaluable expertise and knowledge with me. I would particularly like to thank Luis and Ñeca Marecos, Emilio Caballero, Oleg Vysokolan, Mercedes Oviedo, and Rodrigo Ramirez, who all provided help and encouragement in numerous ways. Finally, many thanks to those Pai Tavytera who shared their experiences, stories, and their lives with me over the last few years.

Previous trips to Paraguay (1986 and 1989) were made possible through my involvement in Amigos de las Americas (a non-governmental, volunteer health organization), an experience which first engendered an interest in Paraguay and in international health. My 1990-1991 research was made possible through a Charles P. Howland Fellowship from Yale University. My final research in 1993-1994 was funded in part by a FLAS (Foreign Language Area Studies) grant for the study of Portuguese.

Finally, I wish to thank all of the friends and family who have encouraged this research, provided emotional and moral support, and shared my interest in Paraguay, international health, and the Pai Tavytera. All of you, in innumerable ways, have made this undertaking possible.

We were once the masters of the earth, but since the gringos arrived we have become veritable pariahs...We hope that the day will come when they will realize that we are their roots and that we must grow together like a giant tree with its branches and flowers.

-Francisco Servin at the Congress of Indians, 1974 (Pai Tavytera Leader)

(Quoted in James Clifford, The Predicament of Culture, p. 1)

En el río Itaimbey, junto a Laurel, salen de noche los yacarés a comerse las mariposas. El yacaré, tronco de corteza dura y áspera, se acerca, abre la boca y engulle la mariposa, débil y florida.

Por la costa del Itaimbey, cerca de Laurel, salieron obrajeros y palmiteros a cazar guayakíes. Los acorralaron después de tres días y tres noches de persecución, hubo disparos, hubo matanza de guayakíes; unos niños guayakíes fueron tomados y...fueron piadosamente vendidos.

Y por las noches los yacarés, en el río Itaimbey, junto a Laurel, seguían comiendo mariposas...

(Bartomeu Melia, Una Nación, Dos Culturas, p. 29)

A partir de aquel entonces
Papa Réi multiplicó sus cabras,
multiplicó sus vacas,
multiplicó todo lo suyo
y ensangrentó el fusil.

No contento con eso
se adueñó de nuestras tierras,
se adueñó de nuestros bosques,
se adueñó de nuestros animales.

Papa Réi olvidó a Ñane Ramói.
Lo que Papa Réi tiene,
lo tiene por Ñane Ramói.
Ya no distingue
lo que es suyo
de lo que es nuestro.

Papa Réi ensangrentó el fusil!
Papa Réi está ciego!
Papa Réi cayó en la obscuridad!

(Fragment of the story "La Traición de Papa Réi" told by Evangelí Morilla and Leandro Morilla, and collected by Oleg Vysokolan. Quoted in Miguel Chase-Sardi, et. al. Situación Sociocultural, Económica, Jurídico-Política Actual de las Comunidades Indígenas en el Paraguay, p. 3)

INTRODUCTION

In 1986 I first traveled to Paraguay as a summer volunteer in a community development project. In 1989, I returned to Paraguay to coordinate a vaccination program, and in 1990-1991 I spent nearly a year there on a research fellowship to examine the role of international health organizations. My interest at that time lay in understanding the role of international health organizations and how community health needs are determined, how specific health projects are developed, and what the most important barriers to project success and sustainability are. While in Paraguay in 1990-1991, I learned of an integrated rural development project among the Pai Tavytera (an indigenous group) in Eastern Paraguay, the Pai Tavytera Project (PPT). Many of the people I spoke with in the development community identified PPT as the longest running and most successful project among indigenous communities in Paraguay. Although many people stated that the project had initially been well-designed, they also suggested that it had changed over time and encountered a number of difficulties.

The purpose of this thesis is to examine the Pai Tavytera Project in greater depth in order to understand how the project originated, how goals and objectives were determined, to identify what some of the problems with the project have been, and to develop some hypotheses to explain these difficulties.

International health as a field of study and work has been described as:

the flow of advice, health professionals, and health technology from wealthier nations to poorer.¹

This provision of health services to less-developed countries (LDCs) has produced large numbers of researchers, organizations, and theories. International health has expanded and diversified greatly from its origins in missionary and colonial efforts of the nineteenth century.² International health efforts can be broadly divided into

¹Rubinstein, Robert A., and Lane, Sandra D., "International Health and Development," in Johnson, Thomas M., and Sargent, Carolyn F., Medical Anthropology: Contemporary Theory and Method. New York: Praeger. 1990, p. 368.

²Rubinstein and Lane, op. cit., p. 368.

multilateral (international such as WHO), bilateral (government-sponsored, such as USAID), non-governmental (NGO) and philanthropic foundations (such as the Ford Foundation).³ This study will focus on the issues involved in one non-governmental project in particular. While all development organizations have followed some similar trends and popular approaches (tropical disease control, population programs, primary health care, child survival, safe motherhood), non-governmental organizations have generally funded smaller, more "grassroots" projects.

Researchers have repeatedly demonstrated that many projects are poorly designed and culturally inappropriate.⁴ In recent years, however, NGO projects in particular have attempted to design smaller, more culturally-sensitive and locally-appropriate projects that will prove to be more sustainable over time. This paper is concerned with the problems that arise in what has been judged a well-designed, sustainable, and culturally-appropriate health project in Paraguay.

At the same time as the field of international health has emerged, in Latin America, the recent activities surrounding the 500th anniversary (1492-1992) of the "meeting of two worlds" have given renewed energy to local movements for indigenous rights and concerns. Indigenous populations, also called "Indian" are a heterogeneous group of communities which are culturally and ethnically distinct from the mixed, *criollo* populations which dominate many Latin American nations. They have unique cultural, social, and historical circumstances which may require special adaptation. Development projects among these populations in recent years has focused more on incorporating local knowledge and traditional medicine; these projects

³Rubinstein, Robert A., and Lane, Sandra D.. op. cit., pp. 370-1.

⁴See, for example Paul, Benjamin D.. Health, Culture, and Community: Case Studies of Public Reactions to Health Programs. New York: Russell Sage Foundation, 1955, and Trostle, James, and Simon, Jonathan, "Building Applied Health Research Capacity in Less-Developed Countries: Problems Encountered by the ADDR Project." *Social Science and Medicine*, 35(11): 1379-1387, 1992, p. 1379, among others.

view the development process as a dynamic equilibrium rather than simply one set of 'experts' handing out solutions to 'needy' communities.

After a military coup in 1989, Paraguay has been undergoing a democratic transition with increased political involvement, a greater freedom of expression of non-governmental organizations, and an increased awareness of the needs and unique nature of Paraguayan indigenous communities. For the first time many of these issues can be discussed freely and openly by a variety of non-governmental groups, religious organizations, government ministries, and indigenous organizations.

In Paraguay, a country with a small indigenous population of roughly 1-2% of a total population of 4.3 million, a debate about the "indigenous question" developed during World War II.⁵ By the late 1960s and early 1970s there was a recognition that many of these communities had lost control of their ancestral lands, were coming into increasing contact with non-indigenous populations, and suffered from health problems that were different from, or comparatively worse than, the general population.

In the 1970s, a number of projects were started in an attempt to address the problems of Paraguay's indigenous population. Most of the projects which addressed health needs did so within the larger context of community development. Many were integrated rural development projects of which health was a key component. One of the best known and longest running of these projects is the Pai Tavytera Project (PPT), started in 1972. The PPT identified a number of different health problems and devised a comprehensive, long-term, integrated plan that would involve the Pai communities in meeting their own health needs.

Over 20 years have passed since this project first began. How did the project determine the original goals and methodology, and who was involved? How well has the project met its own goals? How well has it served the health needs of Pai

⁵See for example Bejarano, Ramón César, "El Problema Indígena en el Paraguay y Su Posible Solución," *Suplemento Antropológico* 1(1): 38-47, September 1965.

communities? How sustainable has the project been and what changes have occurred over time? How well has it included community participation, local knowledge, and traditional medicine? And finally, what are some possible explanations for the project's achievements and difficulties, and what can be learned about the design of new NGO projects from this process? These are some of the unanswered questions to which this study seeks answers.

With the exception of one 14-month period, the PPT has continued without interruption for more than 20 years. However, the project has not achieved a number of the goals it set forth. Following the background section, Part I of this study describes the original goals and founding principles of the project were initially, how they were determined, and whether these goals and objectives were appropriate and attainable. By assessing what the perceived achievements and shortcomings of the project have been, the study will assess how well these goals and principles have been met and whether they have changed over time. Finally, some of the reasons for the project's shortcomings will be discussed. For all of these issues, this study will attempt to assess how the perceptions and the responses to the questions asked vary according to who is answering them: Pai health workers, projects organizers, community members, Pai leaders, and others.

In later sections, several possible explanations for project difficulties and limitations will be explored. These hypotheses include that: (1) the project failed to fully understand traditional medicine and its articulation with Western medicine, (2) the project failed to promote community participation, and that (3) the project methodology changed over time, and has proven unable to adapt to changing Pai needs and circumstances.

I hope that this research will provide an understanding of what happens to a well-intentioned, well-designed project over the course of time. From this research I hope to contribute a better sense of what the long-term constraints are to NGO health

projects among indigenous populations. Ultimately, I hope that this study and others like it will contribute to more culturally-sensitive and culturally-appropriate projects, to greater project success and sustainability, and to improved health status of indigenous populations.

Background

Geography

Paraguay is a small, land-locked country of 406,752 km² in central South America bordered by two rivers: the Pilcomayo and the Paraná.⁶ The Paraguay River divides the country nearly in half and into two geographically and demographically distinct regions: the Occidental (Northwest) and the Oriental (Southeast). The Occidental half, better known as the Chaco, represents over half of the land mass of Paraguay, but contains less than two percent of the population. It is a dry, inhospitable region currently populated by numerous distinct indigenous groups, Mennonite colonists, and the military. The Eastern half consists of sub-tropical rolling hills and forests and contains 98% of the population and all of the major cities.⁷ This study will focus only on the Eastern region of Paraguay where the Pai Tavytera Project is located.

History

Paraguay has a unique history in comparison to other Latin American nations. It was colonized by the Spanish in the early 16th century and Asunción, the capital city, was founded in 1537. Paraguay was ruled, for all practical purposes, by the Jesuits with little outside intervention from 1609 to 1768. During this period numerous indigenous communities had some contact with the Jesuit missions which were established throughout

⁶Centro Paraguayo de Estudios de Población(CEPEP). Paraguay: Encuesta Nacional de Demografía y Salud (ENDS). Asunción: Centro Paraguayo de Estudios de Población, 1991, p. 1.

⁷Centro Paraguayo de Estudios de Población. Paraguay: Encuesta Nacional de Demografía y Salud, op. cit., p. 1.

the countryside. Paraguay was of little importance economically and politically to the Spanish crown, and its isolation caused a mixing of Spanish and Guaraní (the predominant indigenous group) cultures that did not occur elsewhere in South America.⁸ For this reason, most Paraguayans trace their ancestry to both the Spanish and the Guaraní, and some have claimed that Paraguay has the highest rate of bilingualism in the world: 6.5% speak only Spanish, 40.1% speak only Guaraní, and 48.6% speak both Spanish and Guaraní.⁹

Paraguay has undergone some fundamental political changes in the past five years which may serve to overturn a history of lengthy dictatorships. Paraguay became independent from Spain in 1811. In the 19th century, three dictators dominated the country's politics: Gaspar Rodríguez de Francia (1814-1840), Carlos Antonio López, and his son, Francisco Solano López. Two political parties emerged in the late 1800s, the Colorado Party and the Liberal Party. While a succession of short presidencies dominated the political scene up to 1947, when there was a brief civil war, General Alfredo Stroessner and the Colorado Party took power in 1954; Stroessner was able to consolidate his power and dominate the country until a coup forced his exile in February of 1989. Andrés Rodríguez, the second most powerful figure behind Stroessner and one of the main orchestrators of the coup, was elected to power in the country's first democratic elections. Elections were held again in 1993 and Juan Carlos Wasmosy, a businessman and member of the Colorado Party was elected to power.

In addition to a history of strong political rulers, Paraguay has faced a number of devastating wars. In the War of the Triple Alliance (1864-1870), a pre-war population estimated at 800,000 was reduced to 240,000 consisting mostly women and children in a battle against the three most powerful South American nations of the time: Brazil,

⁸Gross, Daniel R.. Peoples and Cultures of Native South America. New York: Doubleday/The Natural History Press, 1973, p. 320.

⁹Centro Paraguayo de Estudios de Población. Paraguay: Encuesta Nacional de Demografía y Salud, op. cit., p. 2.

Argentina, and Uruguay. The war halted a process of rapid development that had begun after independence, and placed Paraguay under the tutelage of its neighbors for years to come.¹⁰ From 1932 to 1935, Paraguay again entered into war, this time against Bolivia for control of the Chaco, where oil was reputed to have been discovered. Although no oil ever materialized in the Chaco, the war ended in a cease-fire and Paraguay was again left economically devastated and depopulated for years to come. The Chaco War provided greater contact between indigenous groups of the Chaco and the Paraguayan military, and thus contributed to a growing concern for indigenous populations in the 1940s.

Economy

The population of Paraguay in 1990 was estimated at 4.3 million and the rate of growth between 1985 and 1990 at 3.1% per year, making Paraguay a young and rapidly growing nation.¹¹ Paraguay is still largely a rural country, with less than 42% of the population living in urban areas and with soy and cotton accounting for 80% of all exports.¹²

Despite the fact that Paraguay is more rural than most South American nations and has the lowest rates of urbanization of any South American nation,¹³ it has one of the healthiest and fastest growing economies. It has the highest annual increase in exports, but one of the lowest average rates of inflation (23% compared with an average of 129% for all South American countries) and only 10% of export earnings are used for debt payments.¹⁴ Much of this increase in output can be traced to an expanding agricultural frontier with high

¹⁰Centro Paraguayo de Estudios de Población. Paraguay: Encuesta Nacional de Demografía y Salud, op. cit., p. 2.

¹¹Weisskoff, Richard, "Expansion Económica y Crisis de Salud en el Paraguay," *Boletín de la Oficina Sanitaria Panamericana*. 114 (6): 520-535, 1993, p. 525.

¹²Centro Paraguayo de Estudios de Población. Paraguay: Encuesta Nacional de Demografía y Salud, op. cit., p. 3.

¹³Weisskoff, op. cit., p. 523.

¹⁴Weisskoff, op. cit., p. 523.

rates of new land under cultivation and large numbers of new cattle ranches. As a consequence, however, Paraguay has the fastest rate of deforestation in South America.¹⁵

Much of the economic expansion has occurred in Eastern Paraguay, the home of many Guaraní communities, including the Pai Tavytera. Pioneer settlers began arriving in the 1960s, attracted by unused government land.¹⁶ Beverly Nagel identifies three mechanisms of settlement: (1) "official" colonies established by the Institute of Rural Welfare (IBR-Instituto de Bienestar Rural), (2) private commercial enterprises of colonization, mainly Brazilian, and (3) spontaneous occupation of unused land by groups of campesinos (peasants).¹⁷ The provinces of Amambay, Alto Paraná, and Canindejú have increased their population by roughly ten-fold in 20 years (1962-1982), and current estimates indicate that 60% of the population of those provinces is of Brazilian origin.¹⁸ A large influx of new settlers, both Brazilian and Paraguayan, has occurred in recent years.

In summary, Paraguay has undergone a rapid expansion of its economy in recent years. It remains a largely rural country with an economy dominated by agricultural production.

Health Conditions

Improvements in health conditions have not kept pace with the rapid economic growth in Paraguay. Life expectancy for both men and women is currently 67 years, which is the average life expectancy for South America as a whole.¹⁹

Paraguay's health statistics place it in an unusual position compared to other South American nations. It has an infant mortality rate, 41/1000 live births, placing it in the mid-

¹⁵Weisskoff, op. cit., p. 523.

¹⁶Nagel, Beverly Y., "Socioeconomic Differentiation Among Small Cultivators on Paraguay's Eastern Frontier," *Latin American Research Review* 26(2): 103-132, 1991, p. 109.

¹⁷Nagel, op. cit., p. 109.

¹⁸Nagel, op. cit., pp. 103-4.

¹⁹Weisskoff, op. cit., p. 524.

range for South America, but a rate of maternal mortality (300 maternal deaths/100,000 live births) which is second highest after Bolivia. Weisskoff (1993) attributes these problems to unhealthy conditions:

The principal causes of mortality in newborns and babies (lactantes) reflects the presence of unhealthy environmental conditions, contaminated water, poor nutrition and inadequate prenatal care, and in the child population from 1 to 4, the lack of immunization. The prevalence of measles and tuberculosis in the general population and, in recent years, the increase in pertussis and tetanus, reflects the progressive deterioration of health conditions and points to the need to redouble the efforts to immunize the population.²⁰

Weisskoff does not discuss the reasons for moderate infant mortality rates and high maternal mortality rates in his article, but there are several possible explanations. Given that Paraguay has few services in rural areas, one explanation may be that the lack of obstetrical, gynecologic, and surgical care in the countryside has a greater adverse effect on maternal than on child survival. It is estimated that between 50% and 70% of all women still give birth in the home without the benefit of any prenatal care or a birth with trained assistance.²¹ In addition, abortion is illegal in Paraguay, as it is in all Latin American countries with the exception of Cuba, and Paraguay has high mortality rates due to septic abortions [22-34 maternal deaths/100,000 live births].²² These factors may account for the relatively higher rates of maternal mortality as compared to infant mortality.

Adult causes of death represent a mixture of 'modern' and 'old' diseases: heart disease, tumors, atherosclerosis, accidents, diarrheal diseases, pneumonia, nutritional deficiencies, and tuberculosis.²³ This data must be viewed with a great deal of caution, however, due to the high probability of the underreporting of health statistics from rural

²⁰Weisskoff, op. cit., p. 533. Note that I have translated this quote as well as all others unless otherwise stated.

²¹Centro Paraguayo de Estudios de Población (CEPEP) Paraguay: Encuesta Nacional de Demografía y Salud. Asunción: CEPEP, 1991.

²²Pan American Health Organization (PAHO). Health Conditions in the Americas. 1990 Edition. Washington, D.C.: PAHO (Scientific Publication #524), Vol. I and II, 1991.

²³Weisskoff, op. cit., p. 526.

areas. It suggests, nonetheless, that infectious diseases and nutritional deficiencies continue to be a problem and that newer diseases are also emerging. The lack of health services in rural areas helps to explain many of Paraguay's health problems: only 30% of births are attended by trained personnel, only one-third of the total population and 7% of those in rural areas have access to potable water, and only 61% of the population has access to any sort of health services.²⁴

The high birth and fertility rates coupled with larger numbers of new settlements in remote areas suggests Paraguay's health situation may be worsening. Infectious diseases, such as malaria, dengue, schistosomiasis, Chagas' Disease, leishmaniasis, and leprosy all appear to be increasing.²⁵ Paraguay, like many poorer countries, has less reliable record-keeping, particularly in rural areas. Because Paraguay has a larger rural population and poorer access to health services in rural areas than other South American countries, the available statistics probably represent a significant underestimate of the problem.

Most of the health care services in Paraguay are provided by the public sector, with the private sector playing a significant role only in the greater Asunción area and a few of the larger cities. There are four components of the public sector providing health care: the Ministry of Health (Ministerio de Salud Pública y Bienestar Social-MSPyBS), the Social Security Institute (Instituto de Prevención Social (IPS), a public insurance plan), the Military (through a system of military hospitals), and the Hospital de Clínicas, a university-based hospital in Asunción. In rural areas, the Ministry of Public Health provides services through a system of regional hospitals (*hospitales regionales*), health centers (*centros de salud*), and health posts (*puestos de salud*). The Ministry divides the country into 14 "sanitary regions" (*regiones sanitarias*) for administration and the allocation of resources. Tertiary care (referrals for specialized procedures) for the

²⁴ Ibid., 1993, p. 525.

²⁵ Ibid., 1993, p. 526.

medically indigent is available only at the Hospital de Clínicas and at the National Hospital in Itapua which opened in 1990.

Only 3% of the government budget goes to health care and according to Weisskoff:

The economy functions with a relatively small budget, in such a manner that the government provides only 0.2% of the Gross National Product for health. This figure is lower, in absolute terms, than any other country in Latin America.²⁶

Weisskoff uses cross-sectional data to convincingly argue that rapid economic growth has not led to improved health conditions in Paraguay in recent years. Rather, a growing population and a more vulnerable rural population coupled with very low government expenditures, poor infrastructure, and widening income inequalities suggests that the health situation may actually have worsened.

Since the elections in 1989, the Ministry of Health has undergone significant changes. The Minister of Health for 19 years, Dr. Adán Godoy de Jimenez, a close ally of Stroessner's, is one of the few members of the previous government still in jail on charges of corruption and embezzlement. The first Minister to be appointed after the coup, Dr. Juan Manuel Cano Margarejo, was a political appointee of the Colorado Party knowing little about public health, and he ran the Ministry in much the same fashion as his predecessor. In the fall of 1990 Dr. Cynthia Prieto, Paraguay's first female cabinet minister replaced him, and she quickly gained the respect of the medical and international community. She acted decisively to reduce bureaucratic expenses, to decentralize the Ministry, and to set new priorities for rural areas and high-risk populations. Indigenous health and maternal and child health were two examples of such high priority areas. Since the elections in 1993, she has been replaced by Dr. Cándido Núñez de Leon, who has

²⁶ Ibid., p. 526. Note here, however, that when referring to Latin America Weisskoff only includes the countries of South America.

been widely viewed as a more political appointment and a return to a more traditional Ministry of Health and greater centralization.²⁷

Indigenous Communities

Indigenous groups²⁸ of various ethnicities account for between one and two percent of Paraguay's population. Controversy exists as to the actual size of the indigenous population, with overall estimates ranging from 24,000 to over 100,000, and estimates of the Pai Tavytera population (from a number of years ago) range from 5000 to 10,000.²⁹ A 1981 INDI (National Indigenous Institute) census calculated the total indigenous population at 38,703.³⁰ However, given the history of indigenous mistrust of the government, the isolation and inaccessibility of these populations, and government incentives for underestimating their size, doubt exists as to the true population size. Non-governmental groups have criticized the findings and estimate that the population is between 70,000 and 100,000.³¹ The new director of the department of Indigenous Health of the Ministry of Health, states that he estimates the current population at between 90,000 and 120,000,³² an increase which would correlate with Paraguay's high population growth rate.

The indigenous population is composed of seventeen distinct ethnic groups that fall into five linguistic groupings: Tupí-Guaraní, Zamuco, Maskoy, Matako-Mataguayo, and

²⁷This view is based on interviews with government health workers and other respondents in the non-profit sector.

²⁸"Indigenous" (indígena) is the preferred term in Paraguay and so I will use it here instead of "Indian" (indio) which has a derogatory connotation.

²⁹Prieto, Esther, "La Situación Demográfica y de Tenencia de la Tierra de las Comunidades Indígenas del Paraguay (Región Oriental)," in Derechos Territoriales Indígenas y Ecología: En las Selvas Tropicales de América. Bogotá: CEREC, 1992, p. 182.

³⁰Instituto Paraguayo del Indígena (INDI). Censo y Estudio de la Población Indígena del Paraguay 1981. Asunción: Instituto Paraguayo del Indígena (INDI), 1982.

³¹Chase-Sardi, Miguel, et al. Situación Sociocultural, Económica, Jurídico-Política Actual de las Comunidades Indígenas en el Paraguay. Asunción: CIDSEP (Centro Interdisciplinario de Derecho Social y Economía Política-Universidad Católica), 1990, p. 11.

³²Personal interview.

Guaicurú.³³ These groups have unique histories, geographic distributions, cultural characteristics, and relations within Paraguayan society. Roughly two-thirds of the indigenous population lives in the Chaco, and one-third in the Eastern region.³⁴

National recognition of the situation of many indigenous communities began during World War II with the founding of the Paraguayan Indigenist Association (AIP-Asociación Indigenista Paraguaya) in 1942.³⁵ A number of anthropologists studied these communities, including Paraguayans such as Branislava Susnik, Miguel Chase-Sardi, and Leon Cadogan, and foreigners including Alfred Métraux, Pierre Clastres, Egon Schaden, Lucien Sebag, Mark Munzel, Miguel Angel Bartolomé, and others.³⁶ Apart from a small circle of anthropologists, however, the situation of Paraguay's living *indígenas* was largely unknown in the rest of Paraguay until the late 1960s and early 1970s. At that time, accounts began to emerge about the treatment of the indigenous population and some researchers accused the Paraguayan government of genocide, most notably against the Aché (Guayakí) group in Eastern Paraguay.³⁷

In the early 1970s several integrated projects of indigenous assistance were begun. Many of these projects, including the Pai Tavytera Project (PPT), were the product of the "Barbados Declaration" that came out of a 1971 meeting of applied anthropologists who were dedicated to improving the material conditions and preserving the cultures of indigenous communities.³⁸ Apart from the Pai Tavytera Project (PPT) which is the subject

³³Chase-Sardi, et. al., 1990, op. cit., p. 11.

³⁴INDI, Censo y Estudio de la Población Indígena del Paraguay 1981, op. cit., p. 47.

³⁵Colombres, Adolfo, and Chase-Sardi, Miguel, eds. Por la Liberación del Indígena: Documentos y Testimonios. Compilación del Proyecto Marandú. Buenos Aires: Ediciones del Sol Serie Antropológica, 1975, p. 227, and Bejarano, Gral. Ramon César. "¿Genocidio en el Paraguay?" Serie Estudios Antropológicos. Nº 5. Asunción: Editorial Toledo, 1974.

³⁶Bartolomé, Miguel Alberto, "Nación y Etnias en Paraguay," *America Indígena* Vol. XLIX (3) July-September 1989, p. 416.

³⁷Arens, Richard, ed.. Genocide in Paraguay. Philadelphia: Temple University Press, 1976, and Cadogan, León. "La Tragedia Guaraní" *Suplemento Antropológico* 2(2): 269-291, Asunción, 1967.

³⁸Rodríguez Doldán, Sinfioriano, "Proyecto Marandú: Informe de Actividades Sanitarias," *Suplemento Antropológico* 11(1-2) 1976, p. 1.

of this study, there were several others. Another well-known project was Proyecto Marandu (*marandú* means "news" or "information" in Guaraní) started by Paraguayan anthropologist Miguel Chase-Sardi and others. This project was short-lived, however, and as part of a larger wave of political repression in 1976, within a few months of the project's inception, its leaders, including Miguel Chase-Sardi, were jailed for political subversion.³⁹

An awareness of the situation of indigenous communities continued to grow throughout the 1970s and 1980s, and a number of non-governmental organizations continued to act in a variety of capacities. This process has accelerated since 1989 with the greater political freedom, the increased ability of non-governmental organizations to work together, and some increased government willingness to get involved.

Many of the health problems now are the same as those that were present in the early 1970s. The health situation of indigenous communities remains roughly what it was in 1976:

The health problems of the Indian villages are truly alarming. The conquerors brought the worst diseases that today plague us: hunger, tuberculosis, syphilis, influenza, chicken pox, measles, and fear⁴⁰

Based on recent community visits, the Department of Indigenous Health (Ministry of Health) describes the most important current health problems as parasitic infections, malnutrition, skin diseases, and tuberculosis.⁴¹

Indigenous populations continue to have high rates of fertility and mortality. The most complete picture of the health and demographic status of all indigenous communities dates from a 1981 census by the National Indigenous Institute (INDI). Overall, almost 55% of *indígenas* in the Eastern Region, and 52.6% in the Chaco are less than 19 years of

³⁹See "Paraguay: Destruction of the Marandu Project" *Newsletter No. 14* Copenhagen: International Work Group for Indigenous Affairs (IWGIA), March 1976, pp. 1-2.

⁴⁰Rodriguez Doldan, Sinfioriano, "Proyecto Marandú: Informe de Actividades Sanitarias," *op. cit.*, p. 1.

⁴¹Ministerio de Salud Pública y Bienestar Social. *Memorando (MSPyBS)*. (Unpublished). Note, however, that these diseases are based heavily on observable phenomenon.

age.⁴² The global fertility rate was estimated to be 6.9 children per woman in 1981.⁴³ Infant mortality before the age of two (per 1000 live births), in the same INDI study, was estimated to be 222, roughly three times that of the rest of Paraguay. This high rate was attributed to disease epidemics (measles, pertussis), respiratory infections, diarrheal diseases, and parasitic infections.⁴⁴ Populations in Eastern Paraguay had lower rates of infant mortality (186), while those assisted by projects had the lowest rates of infant mortality (184) (see Table I).⁴⁵

Infectious diseases, especially tuberculosis, remain common, and are exacerbated by a number of factors: land disputes, a changing lifestyle that has led to an increase in malnutrition and exposure to disease, and lack of health services. One of the most crucial variables contributing to the poor health situation is the loss of traditional indigenous land for farming, hunting, and as a buffer from the outside world.

Table I: Probability of Dying Between Birth and Two Years of Age by Region, Type of Settlement (1976-1977) for Indigenous Populations in Paraguay-per 1000 Live Births⁴⁶

<u>Type of Settlement</u>	<u>Total</u>	<u>Eastern Paraguay</u>	<u>Western Paraguay</u>
Total	222	186	235
Mission Settlements	245	182	282
Project Settlements	197	184	209
No Project	252	256	252
Dispersed	242	208	248

⁴²INDI.Censo y Estudio de la Población Indígena del Paraguay 1981., op. cit., p. 49.

⁴³INDI.Censo y Estudio de la Población Indígena del Paraguay 1981., op. cit., p. 46.

⁴⁴INDI.Censo y Estudio de la Población Indígena del Paraguay 1981., op. cit., p.67.

⁴⁵INDI.Censo y Estudio de la Población Indígena del Paraguay 1981., op. cit., p.68.

⁴⁶Based on INDI.Censo y Estudio de la Población Indígena del Paraguay 1981., op. cit., p.69. Eastern Paraguay includes the Pai Tavytera; Western Paraguay refers to the sparsely populated Chaco.

A number of government agencies provide limited health services for Paraguay's indigenous population. INDI (National Indigenous Institute) is the official government agency responsible for indigenous affairs, and it has a small sector devoted to health care. The organization has limited funds to run a small clinic on the outskirts of Asunción, La Clínica Santa Teresa, and to make a few trips a year to the countryside in order to survey indigenous living conditions. INDI does not carry out regular vaccinations, however, and in the past, has gone to communities to vaccinate populations only in the face of large, already occurring, epidemics. INDI's activities have been further reduced in the last year due to significant budget cuts.⁴⁷ The Ministry of Health until very recently had no formal responsibility for indigenous health care, and in the past frequently refused to treat indigenous patients arriving on the doorsteps of its rural health facilities. As of 1990, however, the Ministry of Health is now legally required to treat all indigenous patients free of charge.

The Ministry of Health under Dr. Prieto made indigenous health (and health issues of landless campesinos) a priority area. A number of training courses for health promoters were held, particularly among the Pai Tavytera. The Ministry has also conducted seminars on indigenous health issues and training sessions for indigenous midwives, among other activities.⁴⁸ However, Ministry of Health activities have also often been limited to a visit to the countryside once news of a well-established epidemic reaches the capital. They have

⁴⁷ Personal interviews with nurses and doctors at INDI's health clinic, Santa Teresa. See also "Tuberculosis Es Causa de Mortalidad Indígena: Informe del INDI Desnuda Precaria Atención Sanitaria a Indios," *Hoy*, September 18, 1993, p. 6., "Indigenismo: Presupuesto para Indígenas Disminuye en un 60%" *Análisis del Mes* 7(84) October 1992, p. 28, and "Clínica Indígena Sin Rubro," *Análisis del Mes*, 7(91) June 1993, p. 25.

⁴⁸ See for example Cañiza López, María Roque. Programa Nacional de Promoción del Indígena y la Salud. Asunción: Ministerio de Salud Pública y Bienestar Social: Dirección General de Bienestar Social, 1993, Curso de Capacitación en Acción Comunitaria para la Salud en Comunidades Indígenas. Asunción: Ministerio de Salud Pública y Bienestar Social: Dirección General de Bienestar Social; Dirección General de Regiones Sanitarias, UNICEF, 1992, and Jornada de Intercambio de Experiencia en Organización Social y Capacitación en Salud Indígena: 13, 14, 15 de Diciembre de 1990: Conclusiones. Asunción: Ministerio de Salud Pública y Bienestar Social: Dirección General de Bienestar Social, UNICEF, 1992.

also consisted of "goodwill" tours of the countryside to hand out medications, examine a few patients, and vaccinate available community members.⁴⁹

For many indigenous communities, many of which live in isolated areas, the only access to health care is through private organizations, often religious missions. These missions vary widely, however, in their approach to indigenous populations and in the nature of the health services provided.⁵⁰ The 1981 INDI census calculated that 24.3% of *indígenas* lived in or were assisted by missions (religious), 53.0% received assistance by private projects (70% in Eastern Paraguay, due largely to the coverage by the Pai Tavytera Project and Guaraní Project), 10.8% received no project assistance, and 11.9% lived without assistance in a dispersed fashion.⁵¹ Non-governmental organizations, both religious and secular, have historically provided services to rural areas, and particularly to indigenous communities, in the absence of state action.

Pai Tavyteral Project (PPT)

The Pai Tavytera are an indigenous community of the Guaraní linguistic group that inhabit rural areas in the provinces of Amambay, Concepción, San Pedro and Canindejú. Many Pai communities had some contact with outsiders dating back to the Jesuit missions. However, it has only been with the development of agribusiness, the entry of Brazilian multinationals involved in timber extraction and large cotton and soy plantations, and the growth of cattle ranches during the last 25 years that they have come into frequent contact with outsiders.

⁴⁹"Parasitosis, Enfermedad Más Común en Indígenas" *Noticias* January 7, 1994, p. 47, "Indígenas del Chaco Claman por Mayor Atención Médica," *El Diario Hoy* September 18, 1993, p. 9., "Ministro de Salud Viaja al Chaco para Evaluar Salubridad," *ABC Color* January 14, 1994, p. 30.

⁵⁰See Escobar, Ticio. *Misión: Etnocidio*. Asunción: RP Ediciones (Comision de Solidaridad con los Pueblos Indígenas), 1988, for a discussion of the role of missionary groups in Paraguay.

⁵¹INDI. Censo y Estudio de la Población Indígena del Paraguay 1981., op. cit., p. 47.

Roughly 8400 Pai Tavytera inhabit 35 communities in Eastern Paraguay. In 1975 it was estimated that 41.5% of the Pai, or an additional 5,750 individuals, lived in Brazil, where they are referred to as Kaiowa-Ñandéva.⁵² In Guaraní, *Pai* is a title used for the gods while *Tavytera* is a contraction meaning "inhabitants of the village in the center of the earth,"⁵³ a name which reflects their profound spirituality and strong connection to their land.

The Pai Tavytera are the only Guaraní group which has retained a concept of a geographically-circumscribed Pai nation, *Pai Reta*.⁵⁴ The Pai traditionally lived in small, dispersed communities in heavily forested areas of what is now Northeastern Paraguay and the state of Mato Grosso in Brazil. Each community, or *tekoha* has its own political and social structure and consists of between eight and 120 nuclear families.⁵⁵ Pai practice subsistence agriculture of a diverse nature: corn, potatoes, squash, manioc, beans, sweet potatoes, and sugarcane. They supplement their diet by hunting fish and animals (wild boar, armadillo, etc.), an important source of protein, and by collecting plants and wild fruits.⁵⁶ Production and consumption of goods are based on two coexisting, cooperative models: (1) that of the *tekoha*, and (2) a system of kinship ties and family relationships. Leadership of each *tekoha* has two components: (1) a *tekoharuvicha* (often older) who is the religious leader, and (2) a *mburuvicha* (younger) who is the political leader. Decisions are made in community meetings, *aty*, and all Pai Tavytera meet in *aty guasu* (large meetings) to make important decisions which affect all communities.

This recent history of increased contact has led to profound changes in Pai culture, health status, and way of life in recent years. It is estimated that due to drastic economic

⁵²Proyecto Pai Tavytera. Manual de Trabajo. Pedro Juan Caballero: Proyecto Pai Tavytera, 1975, p. 29.

⁵³Melia, Bartomeu, Grünberg, Georg, and Grünberg, Friedl. Los Pai Tavytera: Etnografía Guaraní de Paraguay Contemporáneo. Centro de Estudios Antropológicos (Universidad Católica). Asunción: 1976, pp. 183-184.

⁵⁴Proyecto Pai Tavytera. Manual de Trabajo, op. cit., p. 46.

⁵⁵Proyecto Pai Tavytera. Manual de Trabajo, op. cit., p. 47.

⁵⁶Proyecto Pai Tavytera. Manual de Trabajo, op. cit., pp. 7-8. 47-48.

changes, the Pai have lost over 98% of their ancestral lands. By 1972 the Pai had reached a severe stage of impoverishment, deculturation, and illness. In this period 50% of their children were dying before two years of age, and there were frequent epidemics of measles, chicken pox, whooping cough, malaria, and diarrheal diseases.⁵⁷

The Proyecto Pai Tavytera (Pai Tavytera Project) was founded in 1972 in an attempt to secure land titles for the Pai and to provide them with some basic health and education services. Two Austrian anthropologists, Georg and Friedl Grünberg began the project, and it was taken over several years later by J. Wicker, a Swiss anthropologist. Over the years the project worked with the Pai on several issues: the acquisition of land titles, education (in Guaraní taught by Pai instructors), agricultural promotion, and health programs. Many evaluators have concluded that the health component of the project has shown the most success.⁵⁸ The agricultural and educational projects have been largely abandoned due to their failure to achieve visible results. Over the years, the project has been financed by a number of non-governmental sources, most of them European. The project has been carried out since its inception under the auspices of the Misión de Amistad (Friendship Mission-a religious organization from the United States).

The health project included vaccination campaigns, an active tuberculosis treatment program, and the provision of basic health services. A hospital for the treatment of tuberculosis was established in the village Tajy in 1975, but was shut down in 1986.

In the late 1970s the project began to train Pai couples to act as village health workers, or health promoters. Currently, 25 communities have pairs of health workers, although they vary substantially with respect to their training and experience.

⁵⁷Proyecto Pai Tavytera. Manual de Trabajo, op. cit., Proyecto Pai Tavytera, Recuento Histórico-Analítico de los Trabajos con los Pai Tavytera. Asunción: Proyecto Pai Tavytera, 1988, op. cit., and personal interviews with the first medical director of the project.

⁵⁸Grünberg, Friedl. Estudio Sobre el Proceso de los Pai Tavytera de 1972 a 1988. Asunción: Servicios Profesionales Socio-Antropológicos y Jurídicos, 1988.

These health activities have improved the health of the Pai Tavytera villages involved in the project.⁵⁹ Vaccinations for tuberculosis and childhood diseases are routinely done, and while the health coverage is far from complete, it is better than that provided for the Paraguayans living in the area. In fact, the Pai health promoters have also occasionally organized and carried out vaccination trips to nearby campesino (peasant) villages because they have been concerned by the lack of health services available to Paraguayan peasants in rural areas. In addition, the tuberculosis control program has contributed to a reduction in the incidence and prevalence of the disease, although it has proven difficult to eliminate. Finally, treatment of basic health problems such as skin diseases, childhood diarrhea, and infections are also routinely handled by the Pai health workers in their communities. The project has attempted to incorporate Pai concepts of disease and traditional medicine, and to promote greater community involvement and leadership.

Methodology

The purpose of this study is to examine the barriers to project success and sustainability that arise in a well-designed project over time. I have made every attempt, therefore, to collect as much information as possible about the social and health situation of the Pai, past and present, to assess what services are available to the Pai through all sources, and to collect a detailed history of the project.

Many project manuals, reports, and bibliographic materials were collected. However, much of the information about the project has never been collected in a systematic, written way, and much of the quantitative data is unreliable or outdated.

For these reasons, fieldwork in Paraguay and in-depth interviews were needed to provide a complete picture of the project and its history. Fieldwork was undertaken during

⁵⁹Not all Pai villages participate in the project, and while the vast majority do, the different villages participating over the years has fluctuated.

two separate periods. Much of the initial background data was collected in 1990-1991 when I traveled to Paraguay on a research fellowship to examine the role of international health organizations. As a part of this research, I became interested in the issue of indigenous health and learned of the Proyecto Pai Tavytera (PPT). At that time, and particularly from March to June 1991, I collected documentation about the project, interviewed informally many of those working with the project, and visited several communities (Tajy, Jakaira, Yvypyte, Tavytera, and others). I also had the opportunity to observe the functioning of both the Casa Pai (Pai House) in Pedro Juan Caballero and in Capitan Bado, two houses owned by the project and run by the Pai themselves as a meeting place in these cities.

I returned to Paraguay in December and January 1993-1994 for follow-up fieldwork and recontacted many of the people I had worked with in 1990-1991. Many of those I spoke with informally, or with whom I later conducted more formal interviews, were people whom I already had met and talked to on the first visit. I also collected more updated written materials, visited a few communities (Tavytera, and the Casa Pai in Pedro Juan Caballero and Capitan Bado), and to observe a training course for health promoters. A new phase of the project began in December, so I was able to attend some of the planning meetings with the project staff and observe PPT meetings with Pai leaders.

Two principal methods were used to collect data: a literature review, and fieldwork consisting of participant observation and interviews of several categories of respondents. This type of methodology was appropriate to the study goal because not only did it enable me to obtain specific information about the project and the situation of Pai and other indigenous communities, but it also provided the different experiences and viewpoints of the people involved in the project.

A thorough literature review of Paraguayan health and indigenous issues, as well as development literature was conducted. Very little health literature specific to Paraguay, and even less health information about indigenous communities is available in the United

States. Some anthropologic research on indigenous communities in Paraguay is available. Until recently, however, very little health research was done in Paraguay, and it has been the source of study of few outside researchers. Little quantitative data exists as to disease and vaccination rates, and what few statistics do exist must be viewed with a good deal of caution: information is often collected in an unsystematic way, and is often repeated, distorted, and cited in other publications later on. I did collect, however, statistical data from the Ministry of Health, INDI (Paraguayan Indigenous Institute), PAHO/WHO (Pan-American Health Organization/World Health Organization), and the PPT, as well as project manuals and evaluations, journal articles, newspaper accounts, and other government documents.

During my two visits I observed the work of the project at various levels: project meetings in Asunción, training courses in regional cities (Capitan Bado), and work in the countryside: site visits, community vaccinations, and the work and training of community health promoters.

Finally, in December and January 1993-1994, I conducted in-depth, structured interviews with 27 respondents: 12 current or former members of the project team of the PPT, 10 Pai Tavytera, including leaders and health promoters, three government workers, and two other non-governmental workers.⁶⁰ Those interviewed from the PPT span the length of the project's existence from its inception in 1971-1972 to the present and include the current director and health coordinator. They included staff from the health, education, agriculture, and land components of the project. In addition, many of those interviewed have since left the project and are working with other non-governmental organizations or in government ministries. Of the past or present PPT staff, nine have worked or are currently working with a variety of different non-governmental organizations and three are working or have worked for the Ministry of Health.

⁶⁰A list of all of those interviewed, formally and informally, has been included as an appendix.

The interviews ranged in length from 45 minutes to several interviews over several days with key respondents (such as the two former medical directors of the projects) who were willing to talk with me in greater depth. Many of the interviews took place in the capital, Asunción, while the others took place in the cities in Amambay where the project has been involved: Pedro Juan Caballero and Capitan Bado. While I do speak some of the language of the Pai Tavytera, Guaraní, I used the assistance of a translator for interviews with the PPT leaders and health promoters. The agronomist from the project who was very new to the PPT and whom I did not interview independently, translated for all Pai interviews. Because it was difficult to follow the translation and take notes at the same time, these interviews were taped. I took detailed notes for the other interviews, but did not tape them.

The questions that were asked covered the respondents' involvement in and knowledge of the project, their perception of its original goals and aims as well as project achievements and difficulties. Other general questions about the nature of indigenous health issues, the current and ideal role of state and private health services, the role of health promoters and the community, and the role of traditional medicine were also asked.⁶¹ Several areas emerged that form the basis of the subsequent analysis.

There are several potential limitations to the research I have conducted. My short stay in Paraguay of five weeks during the second visit made it difficult to spend much time in the indigenous communities. In addition, I was unable to interview Pai community members or religious leaders or healers (often the same individual, *tekoharuvicha*) as I had originally intended. Because the project is currently only working in the Southern region of Capitan Bado, I was only able to interview the promoters from this region who attended the training. This was unfortunate, particularly given that the health workers in the Northern region of Pedro Juan Caballero have worked longer with the project, and have more training and experience. While I did meet many of these promoters and even traveled

⁶¹A sample of the interview questions asked has also been included as an appendix.

with them on previous visits, I was not able to interview them formally. I was, however, able to interview a number of the political leaders from the North. In addition, my limited time prevented me from visiting more communities, getting to know the respondents better, or feeling fully comfortable with the language and culture. I was fortunate, however, that during my first visit I was able to spend more extended time in the communities, observe the Pai lifestyle (including observing a Pai healing ceremony for TB), and talk with people informally.

Another potential limitation is the fact that a few of the people whom I interviewed were people I had met in an informal way on my previous visit. While the fact that these individuals know me personally could influence their responses, the use of structured interviews and a more formal setting may reduce this risk. In addition, I believe that those few people who had met me before were perhaps more willing to be more open and honest with me in their responses.

PART I: PROJECT GOALS AND OBJECTIVES

This preliminary section has a number of components: (1) a brief background of the Pai Tavytera and the project origins, (2) a discussion of the goals and objectives of the project and how they were determined, (3) a history of the most important stages of the project, and (4) an overview of the most commonly identified achievements and difficulties of the project. This information provides the required framework and background knowledge for the subsequent analysis of the project.

Pai Tavytera Background and Project Origins:

An understanding of the Pai Tavytera and their cultural characteristics has evolved with time, as has the group itself, which has been influenced since the early stages of Spanish involvement in the area in the early 1500s. The Pai have been referred to by many different names over the centuries, which often correspond to the understanding and biases of those who have observed them. This discussion will focus on three critical historical periods of "outside" contact: the Jesuit missions (1609-1768), the 19th century, and events from the 1950s to the start of the project in 1972.

The nation of Paraguay most typified Jesuit colonization and has been most shaped by the early Jesuit presence in South America. These "reductions," (*reducciones*) or missions operated throughout much of Paraguay (and Argentina, Brazil, Bolivia, and Uruguay) from 1609 until abruptly halted by the Spanish crown in 1768. According to Bartomeu Melia:

The reduction is a form of the Spanish colonial system which pretends to incorporate and integrate indigenous society within the Spanish state and its structures...The reduction is fundamentally a project of assimilation of the *indígena* to the colonial system, putting his "tribal" structure

under the control of the state and concentrating the labor force at the service of the *encomendero*.⁶²

The Pai Tavytera, who most probably represent descendents of the Itatín Guaraní cited frequently in colonial records, had contact with colonists from their earliest appearance, predating even the founding of Asunción in 1537.⁶³ The Guaraní at this time were differentiated by the Spanish and the Jesuits according to their geographic location. Those who "became" the modern-day Pai were part of the reduction system at several points. By the time the Jesuit system of missions was dismantled in the late 1700s, most had returned to a life in the forest (*monte*), taking with them and incorporating some symbols (the cross) and myths as a remnant of their time among the Jesuits.

These Itatín, by the 19th century, became loosely referred to throughout the region of Amambay as "Caaguá" (meaning "from the forest" in Guaraní). This semantic change reflected a change in attitude which Melia notes as follows:

The Itatín of the 16th and 17th centuries were looked at as a people, an object of conquest or mission, according to the case; feared enemies, they were also potential allies; in all cases they formed an important part of the province. Little by little, the remains of this group became considered as marginal and peripheral groups, that were only of interest to expanding groups of the criollo economy, as work hands who had to be lured, or as barbarous dangers who needed to be maintained peacefully, but who would have to be eliminated if they resisted. The intents to missionize them are more and more timid, and fail besides, because in reality the colonists no longer think it necessary, neither as an instrument of pacification, nor as a resource of *encomendero* labor.⁶⁴

By the 19th century, the distinctions between different indigenous groups, particularly in the area of Amambay, had been largely forgotten, and most were referred to, pejoratively,

⁶²Melia, Bartomeu. "Los Guaraní del Paraguay Frente a Dos Modelos de Modernidad: La Reducción Jesuítica de los siglos XVII y XVIII y los Proyectos Actuales de Desarrollo," in Seminario Sobre Identidad Cultural y Modernidad: Nuevos Modelos de Relaciones Culturales: Barcelona 27-30 November, 1992. Barcelona: UNESCO, 1992, p. 1.

⁶³ Melia, Bartomeu, Grünberg, Georg, and Grünberg, Friedl. Los Pai Tavytera: Etnografía Guaraní de Paraguay Contemporáneo. Centro de Estudios Antropológicos (Universidad Católica). Asunción: 1976, p. 157.

⁶⁴Melia, et. al., 1976, op. cit., p. 157.

as "caaguá", and later, "ava," meaning man, but used generically to mean "Indian." Some Pai communities had contact with the Paraguayan army during the War of the Triple Alliance in the 1860s, as much of the war was fought in the region of Amambay. The founding of a large yerba mate plantation (La Industria Paraguaya, S.A.) in 1886 in the region of the Pai may actually have protected the Pai: while many Pai worked from time to time as wage laborers, Pai communities were able to survive among the vast tracts of unused or underused land owned by the company. To this day, the largest concentration of Pai communities occur on what were once lands owned by Industria Paraguaya.⁶⁵

Bartomeu Melia identifies three main outside influences on the Pai prior to the project: the landowner (and salesman), the military, and the missionary.⁶⁶ In the recent history leading up to the founding of the PPT, these three groups have exerted an important influence.

Landowners and land settlement projects in Amambay had a tremendous effect on the land situation of Pai communities after the 1950s. According to the Manual de Trabajo, the first important document of the PPT:

Amambay, together with Alto Paraná, in recent years was the department with the highest rate of population increase (90% between the years 1962 and 1972). This was due to new colonization plans carried out by the Institute of Rural Welfare (IBR) and also by private Brazilian entrepreneurs who operate with peasants from Brazil.⁶⁷

This influx of new settlers and agribusiness forced the Pai to disperse even further into small, separated, and highly mobile communities. This also resulted in greater contact with neighboring Paraguayans and Brazilians, and Paraguayan society, than the Pai had previously been exposed to.

The IBR (Institute of Rural Welfare) created an Indigenous Colony (*Colonia Indígena*) in Yvypyte in 1954 at the request of General Samaniego and the military, who

⁶⁵Melia, et al., 1976, op. cit., pp. 181-182.

⁶⁶Melia, Bartomeu. Los Pai Tavytera del Amambay 15 Años Despues. 1988, p. 1.

⁶⁷Proyecto Pai Tavytera. Manual de Trabajo, op. cit., p. 8.

were responsible for indigenous affairs.⁶⁸ This model of "colonias," promoted for many years by the Military and the Paraguayan state, followed an idea proposed by the Brazilian military of "*aldeias indígenas*" that would bring together all of the members of one ethnic group into one location.⁶⁹ Specific members of the military, Generals Bejarano and Samaniego, exerted enormous influence in the area, and especially in Yvytyte. The involvement of the military in Yvytyte has played an important role in Pai politics and culture up to the present day.

The American missionary group, "To the New Tribes Mission" was given permission to establish a mission in Yvytyte by the Ministry of Defense. Around the same time a mission near Ybyyau was established by Norwegians, Misión Norma. Another missionary group, the "Misión Alemana Entre los Nativos del Paraguay" (The German Mission Among the Natives of Paraguay) operated at roughly the same time in the Pai community of Pirary (Piraymi). These groups have shaped Pai history, and the subsequent history of the project, up to the present day.

The Pai Tavytera have been spared much of the intense land conflicts and cultural confrontation that has occurred with other indigenous groups. According to Miguel Chase-Sardi, a Paraguayan anthropologist:

Until the 1960s, [the Pai] were the ones who had suffered the fewest terrible consequences of contact. In the first place, the vast zone they inhabited was occupied by unproductive landowners and fiscal (government) lands, and in the second place, from the 1940s on, they received the protection of the then "Mayor" Marcial Samaniego.⁷⁰

⁶⁸The first government agency for indigenous issues DAI (Departamento de Asuntos Indígenas) was formed within the military. INDI, formed in 1975, continues to be part of the Ministry of Defense. See Bejarano, Gral. Ramon Cesar. Solucionemos Nuestro Problema Indígena con el INDI. Caracas: Serie Estudios Antropológicos N° 6 (2ª edición), 1977.

⁶⁹Proyecto Pai Tavytera. Recuento Histórico-Analítico de los Trabajos con los Pai Tavytera. Asunción: Proyecto Pai Tavytera, 1988, p. 22, and personal interviews with a former medical director in the project.

⁷⁰Chase-Sardi, et. al., 1990, op. cit., p. 409.

Compared to other indigenous groups, the Pai were less well known to anthropologists and to the society at large, and they were known in the early 1970s as the "Avá del Amambay,"⁷¹ a non-specific term meaning "Amambay Indian."

Nevertheless, many of these processes of cultural change, the loss of ancestral lands, and an increase in disease incidence, accelerated during the 1960s and peaked in the early 1970s. At the time the Grünbergs arrived to study the Pai in 1972, the Pai did not have any lands that they could legally claim as belonging to them.⁷² According to the Manual de Trabajo:

Given that the *indígenas* lacked sources or legal means, such as identity documents or a civil registry, and that their very existence was indeed ignored by the regional authorities, each Pai Tavytera community was looking for the response to a critical situation: "How do we protect our lands and how will we find the conditions to feed ourselves and our children?"⁷³

In 1972 the Pai had lost 98% of their ancestral lands and had no legal claims to the little land they did occupy. Epidemics of tuberculosis, malaria, measles, and diarrhea decimated families and whole communities.⁷⁴ Thus, according to many respondents, including the Pai themselves, by the early 1970s they had reached a critical point at which they felt their very survival as a distinct ethnic group was threatened. At this point, a critical moment in Pai history, two Austrian anthropologists arrived in Consuelo'i to conduct a study of the Pai, an undertaking which ultimately led to the formation of the Pai Tavytera Project (PPT).

Georg (Jorge) and Friedl (Paz) Grünberg had previously worked among the Chiriguano (Guaraní) in the Chaco. Georg Grünberg had helped to organize the first Barbados meeting which brought together anthropologists to discuss the situation of Latin

⁷¹Project Pai Tavytera, 1988, op. cit., p. 7, and Melia, 1988, op. cit., p. 1.

⁷²Proyecto Pai Tavytera. Manual de Trabajo, op. cit., p. 8.

⁷³Proyecto Pai Tavytera. Manual de Trabajo, op. cit., p. 8.

⁷⁴Project Pai Tavytera, 1988, op. cit., p. 11.

America's indigenous populations.⁷⁵ In addition, the group formulated a declaration "Por la Liberación del Indígena" (also known as the Barbados Declaration) which:

calls to the attention of world public opinion the situation of South American *indígenas* and makes the national states, religious missions, and anthropologists take responsibility.⁷⁶

The Barbados Declaration document also states that (1) indigenous communities should themselves undertake their own liberation, (2) these populations are now engaged in a dynamic struggle throughout South America, and (3) these indigenous populations have the right to self-government, development, and self-defense.⁷⁷ This document therefore forms the critical theoretical background and underpinnings of the PPT.

Past and present members of the PPT tell a similar tale of the project's origins, although different versions exist. The "myth" of the project's foundation, as told to me by many current and former project members, is that the Grünbergs arrived for the purpose of doing a scientific study. After staying among the Pai for several months, the Pai finally became frustrated at being treated as the objects of study and demanded that the Grünbergs, rather than treating them as a research project, assist them in finding solutions to their most serious problems: land, health, education, and agricultural production. The Grünbergs agreed, and they began working to establish the PPT objectives in a systematic way with the Pai themselves. Bartomeu Melia, a Jesuit priest and early member of the project summarizes that early encounter as follows:

The initial cohabitation for a period of several months with the Pai community of Consuelo introduced the Grünbergs into a crisis situation. This type of experience which can be common to any external agent who works with indigenous

⁷⁵Dostal, Walter, ed. [Documents from Barbados I]. The Situation of the Indian in South America: Contributions to the Study of Interethnic Conflict in the Non-Andean Regions of South America. Proceedings of the Symposium on Interethnic Conflict in South America. (25-30 January, 1971. Bridgetown, Barbados). Geneva: World Council of Churches, 1972.

⁷⁶Indianidad y Descolonización en América Latina: Documentos de la Segunda Reunión de Barbados. México: Editorial Nueva Imagen, 1979, p. 10.

⁷⁷Indianidad y Descolonización en América Latina: Documentos de la Segunda Reunión de Barbados, op. cit., p. 11.

communities, was characterized in this case, I believe, by the perception that they were dealing with a situation not only of a collection (conjunto) of injustices against the *indígenas*--alienation from their lands, subjugation to the legal owners of these lands, exploitation of the indigenous work force, abusive prices of the products that were sold in the small shops (stands) in the area,--but of a crisis of the Pai system as such; better said, of the trappings of the neocolonial system, of "progress" against the indigenous system. These attacks, the Pai system was capable of feeling it and making it known, including to strangers, with their own indigenous and non-colonized categories.⁷⁸

Melia thus suggests that the Grünbergs not only witnessed the material living conditions and exploitation of the Pai, but also the destruction of their way of life. In addition, the Pai were able explain the nature of this process to the Grünbergs from their own perspective.

One of the earliest members of the PPT, apart from the Grünbergs, was a Paraguayan sociologist. When interviewed, he described a large meeting he attended in which the Pai established the five fundamental points they wanted a project to contain:

(1) Absolute respect for their culture and for them. This implied that they must participate in any project, be included.

(2) There must be first and foremost a solution to their land situation, for their *tekohas* (communities) so that foreigners (any outsiders, any non-Pai) wouldn't bother them in their communities.

(3) They asked to be informed about how Paraguayan society functions--its laws, institutions, and how and where to go about getting assistance.

(4) They asked for immediate health attention (*asistencia medica*). They felt they were being affected by diseases brought to them by foreigners. These were things that they had no prior knowledge of, and therefore felt they could not cure with their own medicine. This included TB, measles, whooping cough, and diarrhea.

(5) The final thing they asked for help with was agricultural production.⁷⁹

⁷⁸Melia, 1988, op. cit., p. 2.

⁷⁹Personal interviews with former project members.

These demands were established during a large meeting (*aty guasu*) with the Pai to discuss the nature of a possible project. The Paraguayan sociologist, who worked for the Mision de Amistad on a campesino project, had been sent out by the mission to visit with the Grünbergs. The Grünbergs had previously visited a number of communities and had held many conversations with the Pai. Three days after he returned to Asunción, the director of the mission left for a visit to the United States. While there, he was able to obtain \$3000 to purchase the first vehicle for the project, which was the initial financing for the project.⁸⁰

It is clear that the Pai were involved in the project's founding. While this "myth" that the Pai demanded that the Grünbergs help them is widely held by many members of the project, it also seems clear that the Grünbergs themselves probably had some idea of a project of assistance in mind when they arrived in Consuelo'i. Their involvement with the "Barbados Declaration" suggests that they brought with them definite ideas about the role of anthropology with indigenous populations.

The Pai themselves have had less to say about the project origins, at least in project documents and in interviews conducted. Unfortunately, none of the Pai I interviewed were involved in the project's founding, and most were not old enough to have been around at its inception. Even so, the Pai were curiously silent about the structure of the project itself, and this may not only be due to their limited level of involvement at the project's origin. While Paraguayans and foreigners contend that the Pai have been heavily involved in determining the project structure since its inception, it is unclear that the Pai themselves share this view. According to at least one source, the Pai have identified more with individual project directors and leaders than with the concept of an integrated development project:

More than a "project," to the Pai it was clear that assistance (*ñepytyvõ*) came via particular and concrete individuals...Karai Jorge (Georg Grünberg) and Karai Juan (Hans Wicker).⁸¹

⁸⁰Personal interview with former project members

⁸¹Projecto Pai Tavytera, 1988, op. cit., p. 80 (Note).

Goals and Objectives

The early founders of the project held many meetings with Pai communities in the initial stages of the project. If the story told of the project's foundation is to be believed, then the goals and the objectives are a direct result of Pai demands for a practical project that would meet their needs. Despite the passage of over 20 years, there is still a strong consensus on the founding goals and objectives of the project when former project members were interviewed.

According to the Manual de Trabajo (Work Manual) produced in 1975, a document which represents a summary of what had been learned and achieved in the project up to that point, the overall objective of the project was:

The social, cultural, and economic emancipation of the Pai-Tavytera, the most numerous indigenous group in Eastern Paraguay, within a program of community development according to the realities of national society.⁸²

One former director of the project echoes a sentiment expressed by many but not always stated in written documents:

I think the general objective of the project was to save the Pai from extinction. If not from physical extinction, then at least from cultural extinction. Although I'm not sure the project was ever explicit about this, I think this was the underlying goal.⁸³

Based on the overall objective of the project and an assessment of the most pressing problems, three specific objective areas were determined. These included:

1. Legal adjudication of the lands of each community (*tekoha*) for its communal use according to the laws concerning agrarian reform and the consequent creation of Pai-controlled production and consumption cooperatives called "*Pairekoha*" (National Indigenous Colonies)

2. Medical and Sanitary assistance based on a combination of traditional and Western medicine. Diversification of

⁸²Manual de Trabajo, op. cit., p. 7.

⁸³Personal interview with former project director.

agricultural production and vaccination campaigns, with an emphasis on the eradication of tuberculosis.

3. An integral education program including literacy programs for adults and children, information about rights, and the distribution of identity documents.⁸⁴

Most of those interviewed from the project, with the exception of the Pai themselves, clearly identified the above components as the overall objectives. This suggests that the overall intent and focus of the project has remained remarkably clear over time despite staff turnover, and many changes in methodology and project specifics. Of the Pai who were interviewed, several of the leaders did articulate a general sense of the goals of the PPT. A number of them focused on the project goal of obtaining land.⁸⁵ One of the experienced health promoters also expressed an understanding of the goals:

We understood that the people in the project came to do a health project to form health workers, and also to help legalize our lands. This was my understanding.⁸⁶

But many of the Pai interviewed are political leaders (*mburuvicha*), and therefore too young to remember or have been involved in the project's early stages, a fact that they themselves expressed in the interviews. In addition, many of the health promoters are also young, recently involved in the project, or their involvement in the project began when the health workers were formed, sometime after 1978.

Apart from the four areas mentioned above (land, health, education, and agricultural changes), another goal of the project involved combining efforts for indigenous communities with those of campesinos. According to the Manual de Trabajo:

The project attempts to re-establish the communication between the two rural groups, the mestizos or "Paraguayans," and the *indígenas*, to make possibly a work of solidarity, of mutual benefit.⁸⁷

⁸⁴Manual de Trabajo, op. cit., p. 9.

⁸⁵Personal interview with Pai Tavytera leader.

⁸⁶Personal interview with Pai health promoter.

⁸⁷Manual de Trabajo, op. cit., p. 7.

With time, the project identified a number of specific objectives within the health program. These included an understanding and knowledge of Pai concepts of health and disease, preventive measures such as vaccinations, tuberculosis control, improved nutritional status, the provision of basic medical and dental services, sanitary education, and the formation of Pai enfermeros who would be able to use both traditional and Western medicine in their communities.⁸⁸

Project Methodology

The project based its original objectives on lengthy observations and conversations among the project staff and with the Pai in large meetings. A review of the history of the PPT describes this key component of living among and observing Pai daily life as "human behavior as applied methodology."⁸⁹ The project sought to learn and record as much as possible about Pai culture and beliefs. The assessment of most of those who worked in the project, is that the Pai were involved in the forming of the project, but member of the PPT determined the methodology:

Thus the Pai themselves indicated the actions that needed to be undertaken. The team (of the PPT) simply indicated the methodology and strategy.⁹⁰

The method of project work was intended to be, from the beginning, integrated (among different projects), participatory, and one of social promotion. According to one evaluator of the project:

The methodology is that of a social promotion through actions in certain fields and the revitalization of all of the mechanisms of participation and community and ethno-

⁸⁸Manual de Trabajo, op. cit., p. 98-99 and Proyecto Pai Tavytera/Proyecto Guarani. Programa de Control de la Tuberculosis. Asunción: Asociación Indigenista del Paraguay/Mision de Amistad, 1985, pp. 1-2.

⁸⁹ Proyecto Pai Tavytera, 1988, op. cit., pp. 14-15.

⁹⁰ Personal interview with former health director and project director.

regional decision-making, developed in the years of the project's work.⁹¹

The Pai themselves were to be the main protagonists with the PPT providing "accompaniment" (acompañamiento), resources, and support.⁹² The PPT made use of the traditional Pai practice of *aty* (community meetings) and *aty guasu* (large meetings of all Pai communities) to promote community participation and Pai involvement.

In addition, the project had a number of underlying tenets on which it based its work, although these were seldom stated in written form. They included such things as valuing Pai culture and wisdom (*arandu Pai*), avoiding the imposition of Western or outside influences, and "accompanying" Pai changes without imposing a Western agenda.⁹³ The project also attempted to work in a process of contact, evaluation, revision, and reformulation, as well as self-criticism of project actions.

These original goals and objectives were based on the many months that project members spent living among the Pai, conversing with them, and observing their needs. The Manual de Trabajo⁹⁴ represents a summary of what had been learned up to that point in the project. It included cultural information, historical data, health and demographic statistics, as well as a description of project goals and methodology.

The early project was dedicated to collecting information, documenting its observations and accomplishments, and engaging in a continuous learning and evaluation process. There are many indications that this process did not continue beyond the initial stages of the project, a factor which will be discussed in greater detail in a later section.

⁹¹Berweger, Peter. Reflexiones a Base de 4 Proyectos de Salud de la Cruz Roja Suiza en Bolivia y Paraguay. Direccion de Cooperacion al Desarrollo del Gobierno Suizo, 1984, p. 2 (Annex).

⁹²Proyecto Pai Tavytera, 1988, op. cit., p. 13.

⁹³Grünberg, Friedl. Estudio Sobre el Proceso de los Pai Tavytera de 1972 a 1988. Asunción: Servicios Profesionales Socio-Antropológicos y Jurídicos, 1988, p. 16 and Berweger, 1984, Peter, op. cit., p. 2 (Annex).

⁹⁴This manual was later published with added historical information about the Pai as: Melia, Bartomeu, Grünberg, Georg, and Grünberg, Friedl. Los Pai Tavytera: Etnografía Guaraní de Paraguay Contemporáneo. Centro de Estudios Antropológicos (Universidad Católica). Asunción: 1976.

The project was founded, as stated above, with the help of the Misión de Amistad. Within the mission, a group was already working on campesino issues and projects with urban poverty, PROMURI (Promoción Urbana, Rural, e Indígena-Urban, Rural, and Indigenous Promotion). In addition, several other organizations were involved in lending logistical, financial and political support to the project from its earliest stages. These included the Paraguayan Indigenist Association (AIP-Asociación Indigenista del Paraguay), the Institute of Rural Welfare (IBR), the Ministry of Defense, the Ministry of Health (MSPyBS-Ministerio de Salud Pública y Bienestar Social), and the Paraguayan Episcopal Conference (CEP-Conferencia Episcopal Paraguaya), a Catholic organization. While conflict among these different organizations developed later, they were all essential to the early broad-based support for the program by both the public and private sector. Some of the people interviewed who work in the non-governmental sector contend that this broad-based support from a variety of organizations insulated the project from the political repression experienced by other projects, such as the Proyecto Marandú.⁹⁵

Brief History of Project Stages:

A project beginning in 1972 and still operating in 1994 will have undergone significant changes, and the PPT is no exception. An understanding of the major "phases" of the project and their characteristics, as well as a description of the several "crises" that the project has weathered is essential to an understanding of many of the other issues surrounding the project.

Project members, in an analytic history of the project, Recuento Histórico-Analítico de los Trabajos con los Pai Tavytera (1988)⁹⁶ identify three stages of the project which vary according to project methodology and actions. I will focus here on the stages of the health project, since those of other projects, particularly education, are somewhat different.

⁹⁵Personal interviews with former project members and evaluators.

⁹⁶ Proyecto Pai Tavytera. Recuento Histórico-Analítico de los Trabajos con los Pai Tavytera. Asunción: Proyecto Pai Tavytera, 1988.

To the three stages, I would add a fourth, from 1988 to the present, that has occurred since the 1988 review of the project was written. According to the review:

The stages (époques) are distinguished from one another by the actions undertaken, principally, the form of capturing the different problems and their solutions, on the part of the indigenous leaders themselves, together with members of the project and the supporting institutions. The process and the changes that were adopted did not have any anticipatory planning. They arose as a consequence of the situational changes that were operating at the level of the indigenous communities and the Pai nation in general.⁹⁷

The review identifies the first stage (1972-1975) as one of curative medicine and building relationships.⁹⁸ This was an era of acute health problems on the one hand and attempts to gain the trust of political (*mburuvicha*) and spiritual (*tekoharuvicha*) leaders on the other. Many medicines were given out when requested, and these, particularly with TB patients, were shared among the community regardless of whether a person was sick or not. Accordingly:

No one was deprived when they received medicine, even if it was given for a personal treatment, they had to distribute it among themselves. The TB patients took the same attitude with their treatment: they distributed their medicine for all sorts of afflictions.

In the beginning medicine constituted a means of relating between a leader and their community to support and consolidate their leadership.

For that reason, when the leaders asked for medicine from the project, it could not be denied.⁹⁹

This distribution of medicine among family or friends, whether they suffered from tuberculosis or not, is not surprising given the Pai custom of distributing goods according to kinship ties.

During the second phase of the project (1975-1979) the PPT continued to focus on curative medicine, and the tuberculosis treatment was centralized by the construction of an indigenous hospital in the rural community of Tadj. The Pai began to use government

⁹⁷Proyecto Pai Tavytera, 1988, op. cit., p. 20.

⁹⁸Proyecto Pai Tavytera, 1988, op. cit., p. 32.

⁹⁹Ibid., p. 33.

health centers for some treatment, with the help of the project, but the government was not providing TB treatment to anyone in the countryside at that time.

Finally, the third stage (1980-1986) was characterized by an increasing focus on preventive measures such as improved nutrition for TB, the training of health promoters, and a decentralization of TB treatment. Because the hospital in Taji had proven ineffective for a number of reasons, the project increasingly began to focus on forming health promoters who could be trained to treat tuberculosis in their communities. In 1987 the project underwent a "crisis" that brought project activities to a standstill for over a year. In interviews, different respondents identified several other periods of "crisis" in the project: (1) a change of leadership in 1980-81, and (2) accusations that Pai were growing marijuana at the request of the PPT in the fall of 1990. However, the 14-month period from January 1987 to March 1988 is widely viewed as the time of greatest conflict arising between the project and the Pai communities, and it merits a brief discussion so that subsequent events can be contextualized.

The crisis involved attempts by several individuals (Maria Elva González and others), with the behind-the-scenes backing of INDI (Instituto Paraguayo del Indígena) to convince the Pai to sever ties with the PPT in order to take advantage of Pai resources, especially timber. The crisis was characterized by

the rapid and sustained decomposition of work relations between the Project team and the Pai Tavytera leaders, with the rupture of the inter-community political unity of the Pai.¹⁰⁰

These individuals, claiming to be sent by INDI, promised to help the Pai for eight years, to provide them with whatever they needed, and to set up a new project for the Pai, "Proyecto Ñesunga" (meaning 'place of dance and oration' in Guaraní). The group of people held meetings with Pai leaders, and on occasion, they were accompanied by representatives of INDI. Amelio Morilla, a powerful political leader (*mburuvicha*) from Taji was named as

¹⁰⁰Proyecto Pai Tavytera, 1988, op. cit., p. 79.

the Pai representative to INDI and the leader of all Pai by these people, although he had no such basis for this authority from the Pai communities themselves. Four vehicles were promised, and one was given to Amelio. Gifts of clothing, alcohol, and other goods were given to Pai leaders and their wives.¹⁰¹ In another meeting that was held, a nurse from INDI promised to give all necessary medicine to the Pai and to reorganize the TB hospital in Taji. At that meeting Amelio gave orders that no one should resort to the Project for any medicine or medical assistance.¹⁰²

Eventually, this group, with the support of INDI, organized a meeting in July 1987 for the purpose of having the Pai formally ask that the PPT be stopped. Instead, Pai leaders and health promoters complained that INDI had failed to make good on its numerous promises, and asserted that they wanted the work of the PPT to continue.¹⁰³ This meeting was the last time that official representatives of INDI attended meetings with the Pai. Others have also identified that it was Pai concern about worsening health conditions in the communities that finally prompted other leaders to challenge Amelio and INDI.¹⁰⁴ Clearly, many Pai had become skeptical of promises that had not been fulfilled, and many desired a reinstatement of the PPT because of the visible benefits, health and otherwise, that it had provided.

The project review identifies three objectives that INDI may have had in instigating this elaborate plot to undermine the PPT: (1) to end the project, particularly its aspects of education and its methodology, (2) to undermine the socio-political organization of the Pai, and (3) to usurp the natural resources of the Indigenous Communities, starting with the timber and perhaps even including the land itself.¹⁰⁵

¹⁰¹Proyecto Pai Tavytera, 1988, op. cit., pp. 88-89.

¹⁰²Proyecto Pai Tavytera, 1988, op. cit., p. 90.

¹⁰³Ibid., p. 90.

¹⁰⁴Grünberg, Friedl., op. cit., pp. 22-23.

¹⁰⁵Proyecto Pai Tavytera, 1988, op. cit., p. 92.

While INDI's actions clearly precipitated the crisis, the PPT evaluation postulates several underlying causes for the crisis which precipitated the breakdown of relations between the Pai and the PPT. One explanation is that Pai efforts to distance themselves from the project represented a manifestation of their increasing sense of power and a desire to assert their autonomy with respect to the project.¹⁰⁶ In addition, this change may have represented an expression of frustration by the Pai at some of the project's shortcomings. These difficulties included a failure to make progress on land titles, particularly in 1985-1986, which was exacerbated by an inadequate project response to Pai criticism and concern. Further, the project failed to satisfy a number of other long-standing Pai demands including a vehicle for their use and diplomas for teachers and health promoters. Finally, the effort by INDI to undermine the PPT coincided with a conflict that erupted between two of the sponsoring organizations of the project, the Mision de Amistad and the AIP (Paraguayan Indigenist Association), and with the dysfunction of the umbrella organization responsible for the PPT within the mission, PROMURI. These events weakened the PPT's ability to respond both to Pai demands and INDI's threat.

Other former project members interviewed have suggested that the "crisis" with INDI simply highlighted the process of project changes and increasing project inability to adapt to changing circumstances and needs, or to respond to other Pai demands.

Friedl Grünberg and others have suggested that as more Paraguayans became involved in the project, many of whom had a background in political campesino organizations (ligas agrarias), the project lost its anthropological perspective.¹⁰⁷ Members of the project and the Pai promoters who were trained became "agents of change" committed to promoting a more egalitarian structure, but creating more divisions among the Pai and provoking a greater alienation from the community.¹⁰⁸ According to this perspective, this alienation made the project more vulnerable to INDI's tactics.

¹⁰⁶Ibid., p. 80.

¹⁰⁷Grünberg, Friedl, op. cit., p. 13.

¹⁰⁸Grünberg, Friedl, op. cit., p. 16.

The project summary, Recuento Histórico-Analítico de los Trabajos con los Pai Tavytera notes several consequences of INDI's actions against the Pai and the PPT which included the paralysis of literacy and sanitary education efforts and the logging and sale of large amounts of timber from some communities (Tajy, Pirary, Tavamboae, Pysyry, Pikykoa, and Ndyvaa).¹⁰⁹ After project health efforts were halted, according to project documents, there was an increased mortality due to TB, respiratory infections, and diarrhea, an increase in community levels of alcoholism, a decrease in agricultural production leading to malnutrition and anemia, and the loss of social cohesion in a number of communities. While it is difficult to believe that all of the project's years of achievements could be reversed in the space of 14 months, this crisis clearly did have a significant impact on Pai communities.

The project response to INDI's efforts was a "tactical retreat."¹¹⁰ The PPT took steps to dismantle the project, but tried to avoid conflict, abrupt actions, or taking any actions that would be viewed by the Pai as political. The project was ready to respond to the Pai requests that they felt would eventually come for dialogue and a restart of the project.

In summary, one view taken by the PPT in an evaluation of the outcome of the "crisis" is as follows:

The Pai reaction, nevertheless, was rapid and admirably revindicating of their genuine interests. Despite the fact that at one moment the "María Elba alternative" --a launching point of the INDI assault for the occupation of Pai territory-- merited the almost unanimous interest of the leaders of the Northern region, the only success that it achieved from the Pai is to have stripped them of one of their most lucid leaders, Amelio Morilla [and his father the *tekoharuvicha*, Evangelí Morilla].¹¹¹

Since the project restarted in 1988, a fourth stage has emerged. The activities of the PPT have been greatly reduced, and now consist largely of curative activities, health

¹⁰⁹Proyecto Pai Tavytera, 1988, op. cit., p. 94.

¹¹⁰Proyecto Pai Tavytera, 1988, op. cit., p. 95.

¹¹¹Proyecto Pai Tavytera, 1988, op. cit., pp. 92-3.

promoter trainings, vaccinations, and some work on land issues.¹¹² For historical reasons, the health components of these two project areas had always been financed separately in the North (Pedro Juan Caballero) and the South (Capitan Bado). The PPT and the Mision de Amistad have been unable to obtain funding since 1988 for the North, and as a result the project has only worked in and around the area of Capitan Bado.

In November of 1993, a new group of people began coordinating the PPT, and although two of the four have previous experience in the PPT, the program has now been greatly reduced. Motivated by the Mision de Amistad's efforts to impose better standards of objectives and evaluations, the project now has more specific goals in two areas: health (vaccination and the training of health promoters) and agriculture (bee-keeping and the cultivation of citrus trees).¹¹³ These efforts by the Mision de Amistad to standardize the project goals and evaluations contributed to the breakup of the two organizations under which the PPT had previously operated within the mission: PROMURI and SAI (Servicio de Apoyo Indígena). Both groups have since broken with the mission and have taken some of the PPT documents and fragments of the projects (PPT and Guaraní Project) with them. Since November of 1993, the new PPT project and activities undertaken by SAI with the Pai Tavytera have come into conflict and the two groups threaten to compete with one another in Pai communities.

Summary of Achievements and Difficulties

Interviews, evaluations, and project reports have identified a number of overall achievements and difficulties of the project over time. As one researcher has pointed out,

¹¹²See PROMURI (Promoción Urbana Rural Indígena). Proyecto de Trabajo: 1989-90: Area Pai Tavytera. Pedro Juan Caballero: PROMURI (Mision de Amistad), 1989, and Mision de Amistad. Proyecto Pai Tavytera de Capitan Bado: Programa Trienal (Nov. 1993-Nov. 1996). Asunción: Mision de Amistad, 1993.

¹¹³Mision de Amistad. Proyecto Pai Tavytera de Capitan Bado: Programa Trienal (Nov. 1993-Nov. 1996). Asunción: Mision de Amistad, 1993.

development project achievements are a highly subjective matter.¹¹⁴ Nonetheless, the perception of project success can have important implications for project sustainability, as will be discussed at greater length in the final section. While some of these will be discussed in later sections in greater detail, a summary of perceived achievements and difficulties will be included here. They can be loosely grouped according to the initial objectives of the project: (1) land, (2) agriculture (3) health, (4) education, (5) changes in the Pai themselves, (6) changes in the PPT structure, and (7) the changing national context.

According to Friedl Grünberg, who returned to do a follow-up evaluation of the project in 1988:

The present work has used as a point of reference the conditions of misery in which the Pai Tavytera were found in 1972/3. In comparison, the current situation of this group in terms of natality, nutrition, the legal and social situation in the national context, the consolidation of internal politics, etc., is truly impressive.¹¹⁵

While it would be dangerous to attribute all of these changes strictly to the efforts of one project, many sources (both oral and written) suggest that the PPT has played a critical role in the change that has occurred.

The recuperation of ancestral lands has always been one of the most important goals, for both the Pai and the PPT, and most of those interviewed cite this as one of the most important achievements of the project.¹¹⁶ Over 45,000 hectares are now in the hands of 33 semi-autonomous Pai communities.¹¹⁷ While other groups have assisted the Pai in securing final titles (such as Servicios Profesionales Socio-Antropológicos y Jurídicos), these groups followed the initial efforts by the PPT. Over 95% of Pai families live on communally measured lands, although in many cases with only provisional

¹¹⁴Foster, George M., "Bureaucratic Aspects of International Health Agencies." *Social Science and Medicine*. 25(9): 1039-1048, 1987, p. 1043.

¹¹⁵Grünberg, Friedl, op. cit., p. 2.

¹¹⁶Personal interviews with Pai leaders and health promoters.

¹¹⁷Fernandez de Valdez, Ana Maria. Aspectos Sociodemograficos y Culturales de los Indigenas Guaranies de la Region Oriental del Paraguay. Los Pai Tavytera. Asunción: SAI (Servicio de Apoyo Indigena), 1992 (?), p. 2.

titles.¹¹⁸ In addition, a sacred Pai space, *Jasuka Venda*, was declared an area of "cultural patrimony" by the government in 1990, and more than 8000 hectares have been set aside, the first time in Latin America that land has been entitled to an indigenous community because of its religious significance.¹¹⁹

The approach taken by the project to the land issue represents another achievement of the project. The PPT broke with prior efforts to locate all Pai in one large Indigenous Colony in Yvypyte, and advocated obtaining communal land titles for each *tekoha*, or semi-autonomous Pai community. The project believed this would be a more effective way to preserve Pai political and social structures. According to one of the founders of the project, Georg Grünberg:

Thanks to an agreement with the Institute of Rural Welfare (IBR), the governmental organization for agrarian reform, the project was authorized to carry out--for the first time in the history of Paraguay--legal measurements and registries of indigenous lands in favor of its occupants and with titling in the name of indigenous cooperatives corresponding to each community.¹²⁰

Permanent land settlements have also made greater cultural and political expression of the Pai possible, and have enabled other changes. Many members of the project assert that the initial success with land efforts increased Pai confidence and enthusiasm in the project as a whole, and conversely, when the project began having difficulties in continuing land reform in 1985-1986, discontent and mistrust of the project contributed to the eruption of the project "crisis" in 1987.¹²¹

Unfortunately, however, land titles and land reform represent necessary, but not sufficient conditions for improved agricultural production and nutritional status. An

¹¹⁸Grünberg, Friedl, op. cit., p. 4.

¹¹⁹Prieto, 1992, op. cit., p. 197, and Vysokolan, Oleg. *Informe de 3 Años del PPT en Capitán Bado: 1989-1993*. Asunción: Misión de Amistad and Proyecto Pai Tavytera, 1993(Unpublished), p. 3.

¹²⁰Grünberg, Georg, op. cit., p. 297.

¹²¹Proyecto Pai Tavytera, 1988, op. cit., p. 16, and Berweger, 1984, op. cit., p. 4 (Annex).

increase in agricultural production was achieved for a time and some new crops, such as onion and soy, were tried. However, the agricultural project was halted in 1982 due to the perception that "the said program had committed more errors than success."¹²² While a new, more modest project of bee-keeping and citrus trees has only recently been restarted, improving agricultural production and nutritional status remains an area of significant need.

Friedl Grünberg is not alone in concluding that "Probably the most visible and spectacular success in the work of the project has been achieved in the area of health."¹²³ A number of the successes can be attributed to the introduction of some elements of Western medicine, to which the Pai had very little access prior to the project's inception. While there was significant Pai resistance to vaccinations, in the early years of the project, most Pai now actively request vaccinations for their children.¹²⁴ As a result, epidemics of childhood diseases that still occur commonly in the rest of the country now are very rare in the Pai communities served by the project.

The Pai now have greater access to other primary care services and first aid due to the presence of the project and the health promoters in each community who have been trained by the project. In addition, the project has contributed significantly to an increased access to government services available in health centers and health posts.¹²⁵

While some improvement in the treatment and prevention of tuberculosis has occurred, it still represents the most important health problem in Pai communities. Many former project members identified the TB hospital constructed in Tadjy as a clear failure of the project.¹²⁶ However, despite Pai resistance to receiving treatment at the hospital, it represented a popular symbol of a concrete project achievement (their own Pai hospital). As one respondent pointed out, the fact that the project was able to recognize and eliminate

¹²²Grünberg, Friedl, op. cit., p. 6.

¹²³Grünberg, Friedl, op. cit., p. 8.

¹²⁴Personal interview with a nurse in the project.

¹²⁵Personal interview with a former medical director of the project.

¹²⁶Personal interviews with former project members.

a component of the project that, while popular among the Pai, was not improving TB control, speaks to the project's flexible approach and ability to recognize and eliminate projects that did not work out as they had been planned.¹²⁷

Another achievement cited by many was the respectful attitude of the project towards traditional medicine.¹²⁸ Some former project members suggested that the influence of the PPT contributed to a greater valorization of traditional medicine by the Pai.¹²⁹ All of those interviewed admitted, however, that few steps were taken after the initial years of the project to enhance the PPT's knowledge of traditional medicine, and that the use of traditional remedies, while encouraged, was neither investigated nor included in any systematic way.¹³⁰

Finally, many of those interviewed identified the formation of health promoters as one of the most important achievements of the project. This was particularly true of the Pai that were interviewed, who view this as one of the most important and longest lasting achievements. This observation must be treated with a great deal of caution, however, since the Pai I spoke with were attending a health promoter course at the time of the interviews. These health promoters now participate in Ministry of Health activities and have served to strengthen the ties to the public sector. They represent the strongest link between project and government activities.

A few sources claimed that the project has made major strides in improving literacy in Spanish and Guaraní.¹³¹ However, nearly all of the Pai interviewed identified it as one of the most important shortfalls of the project. The health promoters, in particular, desire

¹²⁷Personal interview with former education project member.

¹²⁸Personal interviews with current and former project members.

¹²⁹Berweger, 1984, op. cit., p. 5 (Annex), and personal interview with former medical director.

¹³⁰Personal interview with former project members.

¹³¹Medina Huerta, Hugo, et al. La Tuberculosis en las Comunidades Indígenas del Amambay. Asunción: Ministerio de Salud Pública y Bienestar Social (Segundo Curso Modular de Salud Pública), 1990, p. 12.

more literacy skills (to be able to read medications and health education literature) and more training in health skills.¹³²

The project, and all of the activities for land rights and improved health status, have contributed to changes in Pai attitudes and an ethnic strengthening in the face of national society.¹³³ The greater stability and improved health conditions have enabled the Pai to re-establish political structures, and ties between other Pai communities and with the outside world. One respondent stated, that in terms of political organization at the national level, the Pai are ten years ahead of any other ethnic group, and that this difference can be attributed in large part to the actions of the project.¹³⁴ The Pai now make greater use of public services, including health services, travel freely throughout the country, talk to the press, and Pai leaders even participated recently in the writing of a new Paraguayan constitution. While clearly these dynamic changes also reflect an increased state responsiveness and a greater ability of the Pai to make collective demands, this participation at the national level did not occur to the same degree prior to the project's inception.¹³⁵

However, the increased activism and politicization of certain sectors of the Pai has also created new internal conflicts. These have frequently taken the form of leadership conflicts between young leaders who have worked as promoters (health, education, or agricultural) within the project and older, more "traditional" Pai leaders. In addition, some community leaders (*mburuvicha*) have come to speak for all Pai at the national level, although they may not represent the views of all Pai equally.

Finally, the structure of the project itself has had an important impact. The style that the project developed of working closely with the Pai, fiercely defending indigenous rights, and always attempting to have great respect for Pai culture, represents an important

¹³²Personal interviews with project health promoters.

¹³³Personal interview with current project director.

¹³⁴Personal interview with former project member.

¹³⁵Personal interviews with former project members.

innovation and one which has been adopted elsewhere.¹³⁶ The project emphasized the issue of land rights, made innovative use of existing laws, and published widely distributed documents about Pai culture and the project undertakings. In addition, the PPT helped to strengthen the notion that all indigenous communities deserve respect for their culture and certain basic rights, including access to health care provided by the Ministry of Health.

While the project structure was innovative and responsive at the outset, the fact that it has become more rigid with time represents one of the greatest difficulties that developed with the project over of time. Many of those interviewed suggest that the project methodology has become less self-reflexive with time and the project has become unable to adapt to changing circumstances or new Pai needs. In addition, the project has suffered from a lack of financing (and trained personnel) in recent years, and a loss of the research component that was present in the initial stages. Some of those interviewed have also pointed out that all projects have destructive and negative effects; that all projects will create new needs and dependencies, and the PPT is no exception.¹³⁷

Several sources hold the PPT responsible for the "crisis" that arose with efforts by INDI to exploit Pai natural resources.¹³⁸ They suggest that INDI would have met with little success if the PPT had had greater project success and Pai participation and support.

The PPT has been unable to foresee some problems, perhaps because its methodology has become more rigid, and the project therefore has not responded well to emerging problems. These problems have included deforestation and the sale of timber from Pai lands, overpopulation, decreased protein consumption, decreased availability of medicinal plants, alcoholism and cigarette consumption, the entry of new diseases, including sexually transmitted diseases, and more difficult access to the communities (ranchers have erected fences and gates to keep outsiders from visiting the Pai).¹³⁹

¹³⁶Personal interview with former project evaluator.

¹³⁷Personal interview with former project evaluator.

¹³⁸Personal interview with Pai leader, and Chase-Sardi et. al., 1990, op. cit., p. 410.

¹³⁹Personal interview with former project medical director.

Finally, the project has brought a number of benefits to Pai communities that are often difficult to quantify: transportation, social support and the functioning Casas Pai (Pai Houses) in Pedro Juan Caballero. These houses, overseen on a rotating basis by pairs of Pai caretakers, serve as sites in these cities where Pai can stay overnight while purchasing goods and services, seeking medical care, for meetings, or while in transit to other locations. While problems have arisen when some Pai have lived for months at a time at the Casa Pai, these houses have served as a buffer for Pai interactions with the larger Paraguayan community.

Several of those interviewed commented that the PPT began its work at an opportune moment when there were great needs but also real possibilities for change.¹⁴⁰ Unfortunately, the situation of many other indigenous groups in Paraguay, even when projects with similar goals and methodologies have been attempted, have frequently met with less success in part because they have been started in an era or region of greater difficulty. The Pai were fortunate, in this sense, that the project began in the right context at the right time.

PPT Legacy

One aspect of the PPT that struck me deeply during my most recent visit to Paraguay was the important legacy that the project has left in the area of indigenous issues more generally. Many people from the project and in Paraguay overlook the project's influence in a number of areas: personnel from the project, the formation of other organizations, legal changes, changes to state agencies such as the Ministry of Health, and its role as a model for other projects.

Many of those who once worked in the PPT have gone on to work on indigenous issues in a number of areas. Former members have worked in INDI (the National

¹⁴⁰Personal interviews with several former project members.

Indigenous Institute), the Ministry of Health, and many non-governmental organizations where their experience in the PPT has been put to use in other ways.

Numerous former PPT staff have been involved in starting new organizations non-governmental to work on various indigenous issues in a different way or with a different focus. Examples of such groups that have arisen in recent years include Servicios Profesionales Socio-Antropológicos y Jurídicos (Professional Anthropological and Legal Services), CEDHU (Centro de Estudios Humanitarios, the Center for Humanitarian Studies), SAI (Servicio de Apoyo Indígena-Service of Indigenous Support), which is composed of former PPT members who left the Mision de Amistad, and others. In addition, the Pai have formed their own organization, the Asociación Pai Tavytera (Pai Tavytera Association), with the support of the PPT and SAI.

Members of the PPT were instrumental in the writing and passage of one of the most critical pieces of legislation, Law 904/81.¹⁴¹ This law granted indigenous communities the rights to land, self-determination, citizenship, and legal representation (personería jurídica).

Two of the former medical directors of the project are now directors of two of the 14 sanitary regions of the Ministry of Health, the rough equivalent of a U.S. state health director. They have both continued to promote indigenous rights and improved health status from within the Ministry structure. Other members of the PPT have also worked in the Ministry of Health, and the health promoters trained by the project have had greater contact and involvement with the Ministry in recent years.

Finally, the PPT has served as a model for a number of other health projects. In 1975 the Guaraní Project (Proyecto Guaraní) was started among two other Guaraní groups in Eastern Paraguay: Ava-Chiripá and Mbya. This project is closely based on the PPT model, is sponsored by the Misión de Amistad, and often works jointly with the PPT. In

¹⁴¹Prieto, Esther, "La Situación Demográfica y de Tenencia de la Tierra de las Comunidades Indígenas del Paraguay (Región Oriental)," in Derechos Territoriales Indígenas y Ecología: En las Selvas Tropicales de América. Bogota: CEREC, 1992.

addition, two rural health projects in Bolivia, Proyecto Izozeño and Proyecto Chuquisaca (Chuqisalud), were designed using the PPT as a model.¹⁴²

Summary of Part I

This section has attempted to trace the history of the Pai Tavytera and the PPT, including the project goals and objectives, and achievements and difficulties, in greater depth. Several conclusions emerge from this analysis which are critical to the understanding of the issues to follow. There is ample evidence of the difficult social and health situation facing the Pai at the project's inception. A review of the goals and objectives of the project suggest that they were initially appropriate to the needs of the Pai. These goals were determined by a close interaction between the project and the Pai, and by the participation of the Pai themselves. Similarly, the initial methodology of the project and the specific projects that were undertaken were also appropriate to Pai needs and demands. While the project has contributed to the improvement of the Pai health and social situation some 20 years later, a number of difficulties have emerged in the project over time, perhaps the most important of which has been the project's inability to remain flexible and adapt to changing Pai needs and demands. In the sections to follow, some possible explanations for the project's difficulties, changes, and short-comings will be explored.

¹⁴² Berweger, Peter. Reflexiones a Base de 4 Proyectos de Salud de la Cruz Roja Suiza en Bolivia y Paraguay. Direccion de Cooperacion al Desarrollo del Gobierno Suizo, 1984.

PART II: TB AND CHILDHOOD VACCINATION: TRADITIONAL MEDICINE AND WESTERN METHODS

One theme which emerged over and over again during the course of interviews was the striking decrease in epidemic childhood diseases (pertussis, measles, diphtheria) compared with the persistent problem of tuberculosis (TB). This failure to control TB constitutes one of the most important "failures" of the project, as identified by those interviewed and yet it was one of the most important health goals at the project's inception. What accounts for the difference between vaccination "success" and TB "failure"? Is it, as some have suggested, due to the project's inability to fully incorporate ideas of traditional medicine, or instead to the project's unwillingness to eliminate the influence of traditional medicine?

In the following section, I will explore the relationship between traditional and Western medicine as it relates to TB and the practice of vaccination, and will show that while traditional views about tuberculosis have certainly contributed to the difficulty of its eradication, the difference can be explained by more "technical" factors alone. This section therefore evaluates some key concepts of Pai traditional medicine, explores the introduction of Western medicine through the PPT, and compares the history of the TB program with that of vaccinations. Based on the evidence presented, I conclude that the ease of TB transmission, the difficulty of TB case detection, treatment, and follow-up, and the continued problem of poor nutrition all are sufficient explanations for this observed difference and, that while cultural factors may contribute to the difficulties, they cannot be blamed for project shortcomings.

Pai Concepts of Health and Disease Causation

The Pai Tavytera concept of health is:

the state of well-being that is achieved through the practice of a total harmony with their God, with themselves, with the

social environment, and with the natural world that surrounds them.¹⁴³

Pai concepts of health and illness are also intimately linked to religious and spiritual values, and in that sense differ from a Western disease concept that is more limited and mechanistic.¹⁴⁴

The Manual de Trabajo identifies several classes of diseases among the Pai:

(1) *Ñandejára mba'asy*, (2) *Itajáry*, (3) *Mohāy járy (pajé vai)*, and (4) bodily diseases.¹⁴⁵

These categories differ with respect to disease causation and treatment approach.

Ñandejára mba'asy are diseases which are sent by God. These are considered the most dangerous, because they can affect an entire community. Epidemic diseases can fall into this category.

Itajára are the evil spirits who are the owners of the mountains, inhabit the jungles, and own the snakes and the rainbows. They are most often found in the forest in the early morning hours, but the diseases they cause can be prevented beforehand with prayers.¹⁴⁶

One of the most feared classes of diseases are those caused by "*pajé vai*" (*mohāy járy*) in which a Pai man or woman uses an evil object to cause illness in another person. The perpetrator is discovered with prayers and the help of the *tekoharuvicha*, and often appears in a vision of the sick person. Historically, the person discovered to be the cause of the *pajé vai* was severely punished, and often killed or burned to death.¹⁴⁷ While this has occurred less often in recent years, such individuals are often punished by the Pai by imprisonment in the leader's house, or are forced to work for the community or the

¹⁴³Ministerio de Salud Public y Bienestal Social. "Medicina Tradicional Guaraní. Region Oriental del Paraguay," in Seminario Sobre "Particularidades de las Comunidades Indígenas y los Nuevos Asentamientos Rurales en el Paraguay." Ministerio de Salud Public y Bienestal Social and The World Health Organization (WHO), 1991, p. 34.

¹⁴⁴Personal interviews with former project members and evaluators.

¹⁴⁵Manual de Trabajo, op. cit., pp. 96-97.

¹⁴⁶Manual de Trabajo, op. cit., p. 97.

¹⁴⁷Ministerio de Salud Public y Bienestal Social. "Medicina Tradicional Guaraní," op. cit., p. 35.

community leader.¹⁴⁸ The involvement of the project and the introduction of Western medicine treatments have been largely responsible for this change.

Finally, the Pai consider some diseases to be ones which only affect the body. These include local wound infections, visible injuries, dental infections, or other things that result from physical violence or mechanical injury.¹⁴⁹ In general, these are viewed as mechanical injuries and treated with medicinal plants only.

Pai medicine, like many traditional medicines, can also be divided into two spheres which differ as to cause, treatment, and health care 'provider'. One sphere consists of general knowledge and popular practices that are widely known and part of a community knowledge base. These are most often practiced more by the elders in a community, but consist of a large pharmacopeia of plant remedies (*pohã ñana*) and teas.¹⁵⁰ Many other Paraguayans also continue to use medicinal plants in a similar way, albeit in a much altered form, where they are referred to as "yuyos."

A second sphere consists of a more cohesive body of knowledge to which access is restricted, usually only to a healer (*tesapysó*).¹⁵¹ These healers, who are also responsible for the spiritual relationship between body and soul, diagnose illness by talking with the patient and family, and undertake treatments with prayer, medicinal plants, bodily secretions, ash, and animal fat.¹⁵² While there is still widespread use of the first type of knowledge, practitioners of the second type are now more scarce.¹⁵³

¹⁴⁸Ministerio de Salud Public y Bienestel Social."Medicina Tradicional Guarani,"op. cit., p. 35 and also personal interview with Pai leaders.

¹⁴⁹Manual de Trabajo, op. cit., p. 97.

¹⁵⁰Smith, Clarence Ernest, Jr.. Disease Concepts and Plant Medicine in Native South America. Dissertation-University of California, Berkeley, 1940, p. 50.

¹⁵¹Berweger, 1984, op. cit., p. 8.. See also Ministerio de Salud Public y Bienestel Social."Medicina Guarani Tradicional,"op. cit., p. 36, Fernandez de Valdez, op. cit., p. 11., and Smith, op. cit., p. 115.

¹⁵²Manual de Trabajo, op. cit., p. 98.

¹⁵³Lehner, Beate. Censo Sanitario Entre Comunidades y Grupos Pai Tavytera. Departamento de Concepcion. 1991/1992. Asunción: Servicios Profesionales Socio-Antropologicos y Juridicos, 1993, (Unpublished), p. 37.

Pai midwives, usually older women, represent another category of 'health care provider.' They help with births and postnatal care, and also are aware of plants with fertility and abortive properties.¹⁵⁴

Epidemics, as noted above, may be sent by God. In addition, however, they may more commonly be due to a prayer:

Epidemics traditionally are interpreted as the result of a prayer-spell (*ñembo'e tatá*)--that a person says and that affects people in a community. These deeds usually generate more social conflicts--family confrontations--moving to a new site, social dispersions and a worsening of health conditions.¹⁵⁵

Clearly the presence of epidemics, and the explanations that the community invokes to explain them, will have a profound effect on social and political interactions. Arthur Kleinman similarly emphasizes the social threat posed by epidemics, and the attempts of traditional medicine to provide an explanation:

Perhaps epidemic diseases pose the most severe tests for traditional medical systems, which in most cases are incapable of preventing or controlling such devastating occurrences, but which primarily rely upon their explanatory systems to deal with these catastrophes so as to support the social order, reconstitute disrupted personal relations, and provide means for individuals and families to live with suffering, loss, and overwhelming human misery.¹⁵⁶

Many diseases introduced to the Pai by Paraguayans or other outsiders have been present for centuries, and as a result, such as the case of TB, have been reinterpreted and incorporated into Pai explanations of disease.¹⁵⁷ Even though they have incorporated these diseases into their explanatory models, Pai still make a distinction between disease present

¹⁵⁴Fernandez del Valdez, op. cit., pp. 9-12, and Manual de Trabajo, op. cit., p. 98.

¹⁵⁵Ministerio de Salud Pública y Bienestar Social. "Medicina Tradicional Guaraní", op. cit., p. 35.

¹⁵⁶Kleinman, Arthur, "Cognitive Structures of Traditional Medical Systems: Ordering, Explaining, and Interpreting the Human Experience of Illness" *Ethnomedizin III* 1/2: 27-49, 1974/5, pp. 39-40.

¹⁵⁷Manual de Trabajo, op. cit., p. 94.

throughout their history, and those introduced with the arrival of the "*Mbairy*" (*Mbairy* in Guaraní roughly translates as "the man of evil"--*el hombre del mal* --the term Pai use to describe whites), such as TB and childhood epidemic diseases. This distinction also implies that there can be different treatments depending on whether a disease is of *Mbairy* origin or not. A "*Mbairy* disease," in the eyes of the Pai, may be more amenable to and appropriate for a Western treatment. In the case of TB, the project attempted to use this Pai distinction to argue that there are two types of disease: (1) caused by *pajé vai* , and (2) one brought by the *Mbairy*. The project thus attempted to use this Pai explanation to encourage some Pai to seek Western treatment for tuberculosis.

The Introduction of Western Medicine

According to Peter Berweger:

It must be noted that elements of modern medicine have been already introduced indiscriminately in almost all cultures in recent times, and in the great majority of Latin American populations. Pharmaceutical products and other contributions arrived, for the most part through commercial inroads and through non-state institutions (religious, scientific, and groups of assistance). Their introduction did not always obey the principle of "complementarity" but rather one of competition with traditional medical systems and, in many cases, these contributions have been accepted and demanded.¹⁵⁸

While many indigenous populations clearly have had access to Western medicine, Berweger and others also point out that the Pai had very little contact with Western Medicine prior to the arrival of the PPT. The Paraguayan program for the elimination of malaria, SENEPA (Servicio Nacional de Eradicación del Paludismo), some religious missions which handed out medicines, and a few small stores which sold medicines were perhaps the only contact the Pai had with Western medicine prior to the arrival of the project.¹⁵⁹

¹⁵⁸Berweger, 1984, op. cit., p. 16.

¹⁵⁹Personal interviews with former project members and medical directors.

The initial goal of the PPT involved the introduction of a minimal amount of Western medicine coupled with the promotion and revalorization of traditional medicine.

According to the Manual de Trabajo:

From the beginning we received from the Pai the mandate of helping them in their struggle against disease, especially against those which they did not traditionally know (e.g. tuberculosis) and those which manifest themselves in epidemic form (e.g. measles, pertussis). Thus we have to always know more about Pai cultural concepts of health and illness in order to be able to include Pai pharmacology and medicine in our action and so that the Pai include and identify with certain Western concepts and methodology in the health area. We observe sometimes a certain resistance in accepting Western medicines on the part of older men who are very religious and who say "One must believe in God only."¹⁶⁰

The Manual de Trabajo also mentions the formation of health promoters ("enfermeros") who would be able to use both traditional medicine and new innovations from the project simultaneously in Pai communities.¹⁶¹

While the project sought to combine a minimum of Western medicine with the revalorization of Pai methods, many of those interviewed described the early period of the project as one of curative medicine with a heavy focus on Western medicine. Pills were handed out indiscriminately, in part because of the great need (concerns about dependency came later), and in part due to the project's inability to deny these resources to the spiritual and political leaders who requested them.¹⁶² One former member of the project went so far as to say "medicines were handed out as if they were candy,"¹⁶³ while another described handing out "industrial quantities" of drugs.¹⁶⁴ It therefore seems clear that particularly in the early stages, the project relied heavily on the use of Western medicine, in part to control conditions of epidemic disease, but also in order to ensure continued Pai support of the

¹⁶⁰Manual de Trabajo, op. cit., pp. 98-99.

¹⁶¹Manual de Trabajo, op. cit., p. 99.

¹⁶²Proyecto Pai Tavytera, 1988, op. cit., pp. 33-34, and interviews with former project members.

¹⁶³Personal interview with former project anthropologist.

¹⁶⁴Personal interview with former project medical director.

project as a whole. The fact that Western pills were so popular also suggests that Western medicine enjoyed at least some level of initial acceptance, a fact which the Manual de Trabajo also makes clear.¹⁶⁵

The health project initially attempted to incorporate traditional medicine into various components of the project and to promote its use at all levels.¹⁶⁶ The project incorporated traditional medicine into the early stages of health promoter training through the education project, but this process did not continue beyond the first few years. Health promoters working now appear to exclusively use and be trained in Western medicine, and to have few or no contacts with Pai traditional healers. Some of the project members interviewed did suggest that because of project interventions, Pai now place renewed value on their traditional medicine.¹⁶⁷ However, many also suggested that the project never did more than respect its use and mention (e.g. in project reports) its importance.¹⁶⁸ The Proyecto Guaraní published a manual of Guaraní medicine and medicinal plant uses, Medicina Tradicional Guaraní. Conceptos y Prácticas.¹⁶⁹ The PPT planned to publish a similar manual of Pai traditional medicine, but this was never done. While all of those interviewed agree that there was a respectful acceptance of traditional medicine, its use was not fully incorporated into the project and a systematic investigation of Pai medicine and disease concepts was never fully finished.

Even though a project may decide to promote traditional medicine, most will admit that traditional medicine has its limits, particularly given the introduction of "new" diseases.

¹⁶⁵Manual de Trabajo, op. cit., p. 94.

¹⁶⁶Berweger, 1984, op. cit., p. 5 (Annex).

¹⁶⁷Evaluación, 1983, p. 14, and personal interview with former medical director.

¹⁶⁸Personal interviews with former project members and medical director.

¹⁶⁹Proyecto Guaraní. Medicina Tradicional Guaraní. Conceptos y Prácticas. Avakatuete del Alto Paraná, Kanindeyú y San Pedro. Asunción: Misión de Amistad and Asociación Indigenista del Paraguay, 1983.

Thus, while the PPT promoted a revalorization of traditional medicine, it also introduced Western techniques to combat "Western" diseases.¹⁷⁰

The introduction of Western medicine raises several important issues. Berweger suggests that one risk of its introduction is the creation of greater dependency, particularly given a new project's desire to meet Pai demands and foster greater acceptance of the project as a whole.¹⁷¹ The introduction of new treatment modalities creates a demand for services that did not exist beforehand. Furthermore, it can lead to greater demands for more and better, and more sophisticated health services. In addition, some researchers have argued that, given the hegemonic nature of Western medicine, its influence will inevitably come to dominate.¹⁷² These critics therefore stress the need to actively promote traditional medicine as a response to this hegemonic bias.

Encouraging traditional medicine has several practical advantages. It responds to specific Pai needs for a more holistic and integrated approach to health needs. It is widely available and economical.¹⁷³

Yet some argue that the efficacy of traditional medicine is often assumed and poorly studied, even given its importance as a social force.¹⁷⁴ Even worse, however, these critics argue, that the promotion of traditional medicine romanticizes and homogenizes safe and unsafe traditional practices and its promotion serves to justify a government's failure to provide traditional communities with adequate services.¹⁷⁵ According to one researcher:

When good scientific medicine is available to traditional peoples, delivered by friendly and sympathetic personnel at a

¹⁷⁰Ministerio de Salud Pública y Bienestar Social, "Medicina Tradicional Guarani", op. cit., p. 37.

¹⁷¹Berweger, 1984, op. cit., p. 16.

¹⁷²Berweger, 1984, op. cit., p. 14, and Elling, Ray H., "Political Economy, Cultural Hegemony, and Mixes of Traditional and Modern Medicine." *Social Science and Medicine* 15A: 89-99, 1981.

¹⁷³Berweger, 1984, op. cit., p. 9.

¹⁷⁴ Glasser, Morton, "Short Commentary: Accountability of Anthropologists, Indigenous Healers and the Governemnts: A Plea for Reasonable Medicine." *Social Science and Medicine* (27)12: 1461-1464, 1988, p. 1462.

¹⁷⁵Glasser, op. cit., p. 1463.

price patients can afford and at convenient times and places, scientific medicine is more and more the first choice for traditional peoples.¹⁷⁶

One risk when evaluating the use of Western medicine is to assume that indigenous populations fail to use Western services for strictly cultural reasons. One study among the Mbya (a similar Guaraní ethnic group) in the north of Argentina found that *indígenas* cited distance, cost (of transportation and of medicines), and quality of service as the primary reasons for not seeking Western medical care.¹⁷⁷ Clearly, indigenous populations, as with any population, have many reasons for making decisions about where to get their health care.

Furthermore, Pai communities may not even make the same distinctions that project members and researchers make regarding "Western" and traditional medicine. They may make use of different health systems to meet different needs without clearly distinguishing one from the other. According to Arthur Kleinman:

A given traditional society may possess a number of distinct and often quite different systems of medical care, even apart from the presence of modern scientific medicine introduced from the West. These separate traditional medical forms, coexist, complement, and compete with each other, and, in turn, with modern scientific medicine...On the "local" level these disparate medical tradition are more or less integrated into a total functioning structure by social perception and usage, forming a local system of medicine as a distinct part of socially constructed reality.¹⁷⁸

In interviews with Pai leaders and promoters, many described frequently using traditional medicine for less serious illnesses such as colds, fevers, stomach aches, and diarrhea. For acute respiratory infections and other more serious conditions, however, they are far more likely to make early use of Western treatments. Pai communities thus appear to combine

¹⁷⁶Foster, G.M., and Anderson, B.G.. Medical Anthropology. New York: John Wiley And Sons, 1978, p. 253.

¹⁷⁷Gorosito Kramer, Ana Maria, "Medicina Indígena: La Conquista de la Memoria," in Después de la Piel: 500 Años de Confusión Entre Desigualdad y Diferencia. Misiones: Dossier de la Revista Con-textos. Departamento de Antropología Social de la Universidad Nacional de Misiones, 1993, p.188-9.

¹⁷⁸Kleinman, op. cit., pp. 28-29.

different treatment modalities according to their perceptions of what works best, and they may make use of more than one system at any given time without resorting to a strict dichotomy between "Western" and "traditional" medicine.

PPT and Childhood Vaccination

The history of the vaccination component of the PPT and the TB portion differ significantly with respect to how they were undertaken, how they were received by Pai communities, and the ultimate outcome of project efforts. In this section, I will provide some background of the vaccination project in order to explore possible explanations for the differences between the two projects.

Epidemics of childhood diseases, particularly pertussis, measles, and diphtheria swept through Pai communities at the time when the project started, killing both adults and children alike. Virtually all communities were affected by disease outbreaks, and entire families disappeared during such epidemics. In 1974, for example, epidemics in Tadj and Pirary affected 34% of the population, of whom 80% died.¹⁷⁹

Consequently, one of the first priorities of the project involved systematic vaccination against diphtheria, pertussis, tetanus, poliomyelitis, measles, and tuberculosis. These vaccinations targeted the highest risk population in particular, children and pregnant women.¹⁸⁰ While vaccinations were undertaken early in the project, a new wave of epidemics in 1978 renewed the project's commitment to eradicating epidemic diseases and convinced them to make routine and systematic vaccination an even higher priority.

According to the Programa de Vacunaciones, a vaccination manual published jointly by the PPT and the Proyecto Guaraní, there is some basis for the idea of prevention in traditional Guaraní disease concepts:

¹⁷⁹Programa de Vacunaciones, op. cit., pp. 1-2.

¹⁸⁰Programa de Vacunaciones, op. cit., p. 11.

These concepts [of vaccination, immunity, etc.] pertain to modern medicine; nevertheless, among *indígenas* there exists the concept of the prevention of diseases with religious rituals and also immunization with certain procedures, such as with a snake bite or a bee sting.¹⁸¹

While the project attempted to build on Pai beliefs and a concept of prevention, vaccinations in the Western form were completely new to the Pai. There are many indications that there was a great deal of initial resistance to vaccinations for a number of reasons. Vaccinations, with the exception of the oral polio vaccine (Sabin) generally involve the injection of a foreign substance directly into a person. Many Pai, while accepting treatment with medication in a pill form, initially resisted any sort of injection for this reason.¹⁸² In addition, the populations targeted by vaccination efforts, pregnant women and young children, are also the populations most protected by the rest of the community because they are perceived to be more vulnerable.¹⁸³ Many vaccinations produce a reaction, such as a fever, and this often led to the perception (and truth to some degree) that vaccinations made children sick, thus representing another reason for Pai resistance.¹⁸⁴

A few parents began allowing their children to be vaccinated, and concern about the injections began to diminish. In addition, a large measles epidemic in 1978-1979 in many communities, contributed to greater vaccination acceptance. Many Pai were able to see for themselves that those children who had been vaccinated were protected from getting sick with measles.¹⁸⁵ These empiric observations by the Pai were combined with intensive efforts by the project to introduce and stress the importance of the concepts of vaccination and prevention. Pai leaders who supported the idea, members of the education project, and the health promoters, once selected, all worked together to reinforce Pai acceptance of the vaccinations.

¹⁸¹Programa de Vacunaciones, op. cit., p. 6.

¹⁸²Personal interview with former project member.

¹⁸³Personal interview with project nurse.

¹⁸⁴Personal interview with Pai leader, and Programa de Vacunaciones, op. cit., pp. 13-19.

¹⁸⁵Personal interview with project nurse and Berweger, 1984, op. cit., p. 21.

In recent years, Pai promoters have carried out the vaccinations themselves. Depending on their level of training, some promoters will carry out the entire operation independently from start to finish, while others will give the vaccinations and do record-keeping in their community with the help of the project. For the first time in 1991, Pai health promoters completed all three vaccine doses in six communities (Itaguasu, Pikykoa, Cerro Akangue, Itajeguaka, Pirity, Tavamboae) without the assistance of the criollos in the project.¹⁸⁶ In addition, many health promoters now work with the Ministry of Health, submitting their vaccination records, obtaining vaccine, and taking responsibility for the vaccination of all Pai communities.(see Table II).

Table II: PPT Vaccinations 1988-1993¹⁸⁷

TIME PERIOD	DPT	POLIO	MEASLES	BCG	TETANUS
4/88-9/93	3759	4998	1628	1079	3187
4/89-9/89	667	673	220	182	358
10/89-12/89	202	214	63	----	152
1/90-3/90	724	740	320	317	400
4/91-9/91	399	407	116	48	248
10/91-3/92	730	733	229	286	521
8/92-9/93	861	194	401	207	750

According to all of those interviewed, in the areas served by the project, there has not been an outbreak of vaccine-preventable disease in many years.¹⁸⁸ In contrast, in the same period there have been outbreaks of these diseases in Yvypyte, a collection of Pai communities that, for historical reasons, was never served by the project. Outbreaks have

¹⁸⁶Proyecto Pai Tavytera. Informe de Actividades: Abril a Septiembre 1991. Pedro Juan Caballero: Servicio de Apoyo Indígena (SAI), Misión de Amistad, 1991.(Unpublished)

¹⁸⁷Data based on PPT project reports from 1988-1993. Numbers include all doses (1st, 2nd, 3rd and booster doses). Unfortunately, vaccination coverage could not be calculated because there is no reliable current estimate of population size, growth rate, or demographic distribution.

¹⁸⁸Personal interviews with several former project members.

also occurred in other Guaraní communities, and in rural Paraguayan communities. In 1993, 30 members of one Ava-Chiripa community (a Guaraní group) of 180 families were killed in a measles epidemic.¹⁸⁹ In 1989, 45 people (adults and children) died as a result of a measles epidemic in the Pai community of Ñuapy, a community that did not participate in the PPT.¹⁹⁰

The PPT has made the cultural acceptance of routine vaccinations possible. According to a recent sanitary census of Pai communities, only a few families refuse vaccination for cultural reasons.¹⁹¹ Many years have passed since the last outbreak of a vaccine-preventable disease has occurred among the Pai, and many Pai actively request and seek out vaccination for their children. Finally, the vaccination project, through its incorporation of the health promoters, has provided a strong link to emerging preventive health efforts by the Ministry of Health.

PPT and TB Treatment

From the earliest days of the project, tuberculosis was recognized as one of the most important health problems and as one for which few or no government services were available. According to the Manual de Trabajo:

The high percentage of pulmonary tuberculosis among the Pai-Tavytera is closely linked to the intensive deterioration of the nutritional system. Currently, numerous cases of acute tuberculosis exist in all of the communities, that, even in the most favorable conditions could not be attended to, given that no hospital in the region would accept the presence of a tuberculosis patient.¹⁹²

All of those interviewed, including members of the project, indigenous leaders and health promoters, and government officials, identified TB as the single most important health

¹⁸⁹"Indigenismo: Epidemia de Sarampión," *Análisis del Mes* 8(89) March 1993, pp. 24-25.

¹⁹⁰Proyecto Pai Tavytera. Informe de Actividades: Enero-Marzo 1990. Pedro Juan Caballero: Servicio de Apoyo Indígena (SAI), Misión de Amistad, 1990.(Unpublished)

¹⁹¹Interview with former project anthropologist.

¹⁹²Manual de Trabajo, op. cit., pp. 8-9.

problem in indigenous communities, past and present. As with childhood diseases, all communities, and virtually all families have been affected by TB. According to one source:

Tuberculosis, caused at times, the deaths of entire families (in 1976 16 people died of tuberculosis, among the 118 members of one community, Tavamboae--Mortality Rate 135 deaths/1000 inhabitants)¹⁹³

The TB morbidity and mortality rates, even in 1985, were estimated to be 21 times higher than that of the population of Paraguay as a whole (see Table III).¹⁹⁴

Table III: Estimated Tuberculosis Morbidity and Mortality Rates Among Pai Tavytera as Compared to Population as a Whole (1985)¹⁹⁵

INDICATOR	PAI TAVYTERA	ALL PARAGUAY
MORBIDITY RATE	15 cases/1000 Population	0.44 cases/1000
MORTALITY RATE	2.2 cases/1000 Population	0.1 cases/1000
ANNUAL INCIDENCE OF NEW CASE	16 cases /1000 Population (120 cases/year)	0.76 cases/1000 Population

Tuberculosis represents the disease most clearly and most consistently linked with *pajé vai* , and as such has had enormous social consequence:

Besides the high frequency of this disease, there is the difficulty of the socio-cultural concept in relation to [TB]. For the Pai-Tavytera, people with tuberculosis are the object of witchcraft (*pajé vai*) and, as a consequence, in order to restore the social equilibrium in the settlement, to cure the patient, and to avoid the propagation of the said evil, the leaders of the community generally punish the supposed authors, who are identified by visions of the patient, with severe corporal punishment, death, and burning, with the subsequent generation of a series of family and community

¹⁹³"La Tuberculosis en las Comunidades Indígenas," 1990, p. 3.

¹⁹⁴Programa de Control de la Tuberculosis, op. cit., p. 6.

¹⁹⁵Modified from Programa de Control de la Tuberculosis, op. cit., p. 6.

conflicts, which include causing the breakup of the community and serious social problems.¹⁹⁶

The project recognized the significance of *pajé vai* early on and developed a number of strategies to deal with it. The project acknowledges, in the Manual de Trabajo that:

It must be noted also that 'modern' diseases like tuberculosis, pneumonia, influenza, whooping cough, measles, have been the objects of a magical-religious theoretical reinterpretation, assigning to tuberculosis, above all, an origin caused by the action of an (evil) witch or by the practice of witchcraft. On this point, certain political leaders expound with eloquence and offer threats to those who dedicate themselves to this practice, that, once really or supposedly discovered, they are even punished more or less severely. The candor with which they talk about cases and point out those involved in these actions is notable. These aspects of the illness have not been noted here, in part so as not to accentuate the emphasis on them, and in part so as not to confer to them, through the written word, a kind of authorized consagración.¹⁹⁷

As the first quote suggests, however, access to TB treatment at the time the project started was essentially nonexistent. A TB plan was first instituted in Paraguay in 1979, but this plan did not even include the entire county until 1987.¹⁹⁸ While the Juan Max Boettner Hospital in Asunción did provide specialized TB treatment at that time, *indígenas* did not have access to it. Given the high rates of tuberculosis and the lack of any sources of treatment, a plan for the treatment of tuberculosis was undertaken early on in the project.

The PPT was aware of the Pai concept of *pajé vai* early on, and attempted to modify Pai disease concepts to encourage Western treatment of TB. The Manual de Trabajo describes the project's approach to the subject of TB:

The subject of *pajé vai* and its capture and identification are heard with many variations in all the *tekoha* (at it sometimes represents the number one problem of the *aty guazu*)

¹⁹⁶Medina Huerta, Hugo, et al. La Tuberculosis en las Comunidades Indígenas del Amambay. Asunción: Ministerio de Salud Pública y Bienestar Social (Segundo Curso Modular de Salud Pública), 1990, p. 10.

¹⁹⁷Manual de Trabajo, op. cit., p. 94.

¹⁹⁸Ministerio de Salud Pública y Bienestar Social. Programa Nacional de Control de la Tuberculosis: Memoria de Actividades del Año 1992. Asunción: Ministerio de Salud Pública y Bienestar Social, 1993.

Because it is impossible for us to enter into the discussions around *pajé vai* because this notion does not correspond to our vision of the world, the only thing we can do is to prevent and to fight the diseases supposedly caused by *mohāy* (especially TB, *mba'asy po'i*, *hu'u piry*) and to support those Pai who demonstrate doubt about the magical cause of the diseases which afflict members of their *tekoha*.¹⁹⁹

As described above, rather than attempt to convince Pai that *pajé vai* does not exist, the project suggested that there were two forms of TB: (1) one a result of *pajé vai*, and (2) another brought by *Mbairy* and thus treatable with Western medicine. With this argument, some were convinced to at least try TB treatment, and many leaders pressured TB patients in their community to undergo treatment. When the treatment failed, the disease was then attributed to *pajé vai*.

The project decided that the construction of a Pai hospital for the treatment of TB in an indigenous community (Tajy) was the best approach for a number of reasons. At that time, TB treatment required daily injections of medications for the first two months of treatment, a total course of 18 months of treatment, and therefore far more medical supervision than it now does.²⁰⁰ In addition, many Pai with TB at that time were acutely ill, had had progressive TB for a number of years, and thus needed intensive treatment. Many refused to leave their communities to travel to the city (Pedro Juan Caballero) for treatment, but were willing to be interned in the Pai community of Tajy.²⁰¹

The PPT operated the hospital in Tajy from 1976 to 1981, at which time it was given to the Pai to manage. During most of that time it was run by a Paraguayan couple who lived in Tajy. While many Pai did agree to treatment in Tajy, numerous problems arose. Many Pai came to Tajy for treatment, but few actually stayed to complete their full course of therapy and most patients returned to their communities as soon as they began to

¹⁹⁹Manual de Trabajo, op. cit., p. 97.

²⁰⁰Personal interview with former medical director.

²⁰¹Berweger, Pedro, Galeano, Luis, and Páez, Pascual. Evaluación de los Programas de Salud de los Proyectos: Paí Tavyterá y Chiripá Guaraní. Asunción, 1983. (Unpublished), p. 51, and personal interview with former medical director.

feel better. Cultural views about *pajé vai* and a dislike of injections persisted, and contributed to Pai resistance to extended treatment. It was also difficult to persuade the Paraguayan personnel of the project to stay in Tajy for long periods of time to oversee the hospital.²⁰² Finally, and most importantly, political conflicts arose in Tajy itself which made continued PPT control of the hospital difficult. The leader of Tajy at that time, Leandro Morilla, tried to use the hospital for his own benefit, and tried to levy a tax of sorts on the project for the use of the hospital.²⁰³ For these reasons, in 1981 the hospital was closed for all practical purposes, although the PPT claimed it was handing it over to the community. This decision to downplay the hospital's closure was due in part to the fact that, while the hospital was not meeting the needs of TB patients, it was a source of pride and a popular achievement of the project in the eyes of the Pai. The project, however, had already begun to train health promoters for each community to detect cases of TB and follow the course of treatment as a next step and therefore had decided to terminate the hospital.

One of the most important initial reasons for training the health promoters was for the detection and treatment of TB. Their incorporation into other aspects of the project occurred later. The promoters were trained to recognize the symptoms of TB and differentiate it from other respiratory infections, to take a sputum sample, to administer drug regimens, and to give injections, including BCG vaccinations. With increased contact with the state government, the promoters have also taken more responsibility for record-keeping and following TB patients in recent years.²⁰⁴ The health promoters were chosen as pairs by the community, often with the backing of political leaders. The early years of promoter formation, first in Tavamboae and then Cerro Akangue, were carried out with intense project involvement. One or another project member lived continuously in the community for months, although they would rotate on a 1-2 week basis. These promoters

²⁰²Personal interview with former project anthropologist.

²⁰³Personal interview with former medical director, Pai leaders, and others.

²⁰⁴Programa de Control de la Tuberculosis, op. cit., pp. 7-15.

received intensive training in their communities first, and this was later followed by literacy and health education courses through the education project, and technical training sessions.²⁰⁵

The project goals for TB included the reduction of primary infection and decreasing the chain of transmission, and a decrease in morbidity, mortality, and the health and social consequences in the community. Steps to further these ends include (1) BCG vaccination (infants > one month of age with a revaccination five years after the first dose), (2) active case finding (sputum samples, x-rays, PPD tests, and clinical evaluation), (3) treatment (different protocols depending on disease severity, age, drug resistance, and drug reactions), (4) chemoprophylaxis (for household contacts), (4) health education (using community meetings), (5) training of health promoters, and (6) research.²⁰⁶

Many in the project assert that a large degree of control of TB was achieved by 1986, the year the project "crisis" began. According to one former member of the project, in 1986 the project detected 5-20 new TB cases per year. After the project was restarted again in 1988, the project was detecting 2-3 new TB cases per week. Deaths due to TB, which had declined in 1986, were, by 1988, once more common.²⁰⁷ While it is difficult to imagine that the spectrum of disease could change this rapidly, it is clear that the project's temporary cessation did have an important impact on Pai health conditions. In addition, the fact that TB immediately emerged again as a problem when project activities were halted suggests that these activities had not yet become sustainable.

It is important to note the important strides that the Ministry of Health has taken in very recent years in the area of TB control. The rate of BCG vaccine coverage in infants, to cite a dramatic example, increased from 56.2% of children in 1988 to 99% in 1992. In one year alone, a year marked by a democratic change of government and a new Minister of

²⁰⁵Personal interviews with former and current project nurses.

²⁰⁶Programa de Control de la Tuberculosis, op. cit., pp. 7-12.

²⁰⁷Personal interview with former project nurse.

Health, vaccine coverage increased by 38% (from 52% in 1989 to 90% in 1990).²⁰⁸ The Ministry of Health has made similar strides in other areas of TB treatment and prevention. While this does represent an important improvement, because these government services are channeled through NGOs such as the PPT, the impact of recent changes on the Pai has been minimal.

Whether the project achieved a control of TB or not in 1986, TB continues to represent a significant health problem now. The province of Amambay, where most Pai live, has the second highest rate of TB in the country (77.6 cases/100,000 inhabitants), due in large part to extremely high rates in Pai communities. Only the Chaco has higher TB rates (138.5 cases/100,000 inhabitants).²⁰⁹ The Chaco has a proportionately larger indigenous population than Amambay, and has far fewer health services. The nationwide TB rate in Paraguay in 1991 was 52.0/100,000 inhabitants, although this probably underestimates the true prevalence of disease.²¹⁰ Unlike TB control efforts among the Pai and other indigenous communities, active case detection has not been undertaken in rural communities and, until very recently, Ministry of Health personnel had far less training than Pai promoters in detecting and diagnosing TB. For these reasons, it is very possible that TB rates among rural Paraguayans are actually far higher than officially reported. The PPT recorded 691 cases of TB between 1988 and 1993, of which 293 were newly detected cases.²¹¹ In Yvypyte, a large community never included in the PPT, there were 48 cases of TB (not all newly diagnosed) out of a population of 1470 in the period April-September of 1991, of whom two died and many were diagnosed in a very advanced state of

²⁰⁸Ministerio de Salud Pública y Bienestar Social. Programa Nacional de Control de la Tuberculosis: Memoria de Actividades del Año 1992. Asunción: Ministerio de Salud Pública y Bienestar Social, 1993.

²⁰⁹"La Tuberculosis: Flagelo Indígena" *Diálogo Indígena Misionero (DIM)* 13(44) October-December, 1992, p. 18.

²¹⁰Despite increasing concern about TB in the United States, its annual case rate in 1990 was 10.3/100,000 population. (*MMWR*, Vol. 41 (RR-5), April 17, 1992, p. 3.)

²¹¹Vysokolan, Oleg. Informe de 3 Años del PPT en Capitán Bado: 1989-1993. Asunción: Misión de Amistad and Proyecto Pai Tavytera, 1993.(Unpublished).

disease.²¹² While there are many limitations to the quantitative information that is available, the magnitude of the problem of TB appears, if anything, to have worsened in recent years (see Table IV).

Table IV: Newly Detected Cases of Tuberculosis by PPT (1982-1993)²¹³

<u>TIME PERIOD</u>	<u>#NEW CASES</u>	<u>#TOTAL CASES</u>	<u># NEW CASES/MONTH</u>
1/82-12/82	54	--	4.5 cases/month
1/83-6/83	33	--	5.5 cases/month
4/89-9/89	65	97	10.8 cases/month
10/89-12/89	26	45	8.7 cases/ month
1/89-12/89	112	180	9.3 cases/month
1/90-3/90	26	63	8.7 cases/month
4/90-3/91	119	207	9.9 cases/month
4/91-9/91	55	112	9.2 cases/month
10/91-3/92	38	418	6.3 cases/month
8/92-9/93	46	---	3.8 cases/month

The data in Table IV suggest that the number of new cases detected in the period 1988-1993 is almost double that which was recorded in 1982-1983. These data, however, reflect passive case finding and must therefore be interpreted with great caution. Many factors, such as fewer Pai seeking treatment, and more or less active TB control by the PPT, will alter the number of new cases detected. Taken as a whole, however, these data suggest that TB continues to represent a significant problem that may be worsening.

In addition, however, the disease severity in indigenous populations is often greater. Virtually all cases of TB meningitis (usually in children) occur among indigenous populations. Indigenous communities, including the Pai Tavytera, have higher rates of

²¹²Informe de Actividades: Abril/Septiembre 1991., op. cit..

²¹³Based on PPT project reports (1988-1993) and Berweger, et. al., 1983, p. 57.

extra-pulmonary TB (usually more severe) disease relapses, and, as a result, cases of drug-resistant TB.

Possible Explanations: TB and Childhood Vaccination

Several explanations may account for the striking difference between the clear success of vaccination efforts and the difficulties of TB control. These explanations can be grouped, broadly, into two categories of explanation: cultural factors and technical difficulties.

As described above, the PPT was well aware of the Pai concept of *pajé vai* and its importance in tuberculosis from the earliest stages of the project. While the project made many efforts to understand and incorporate traditional Pai disease concepts, they also attempted to implement and provide broad support for some concepts of Western medicine such as preventive medicine and vaccination. The PPT even went so far, in the case of TB, to attempt to modify disease concepts of TB to make Western treatment more acceptable. Despite these efforts, however, some acquainted with the project have concluded that:

Nevertheless, a special situation exists with the disease of tuberculosis, which, despite the years of education (concientización) undertaken by the Pai Tavytera Project, continues to be interpreted for the most part as a disease caused by witchcraft (*pajé vai*), and, as a result, one which is not curable by medicines and treatments of Western medicine. There are many other diseases which are many times attributed to *pajé vai* (cancer, Chagas' Disease, cerebrovascular diseases, etc.), but none are as frequent or important as tuberculosis.²¹⁴

Many others who were interviewed also attributed the difficulty of TB control to cultural factors. In contrast, while the vaccination project initially faced similar problems of an acceptance of the invasive process of vaccination, vaccinations are now widely accepted and undertaken.

²¹⁴Lehner, Beate. Censo Sanitario Entre Comunidades y Grupos Pai Tavytera. 1993, (Draft), pp. 1-2.

In the face of what appears to be clear evidence of a difference of cultural acceptance, it is striking that none of the Pai promoters or leaders who were interviewed identified the concept of *pajé vai* as a barrier to TB control. While this group represents perhaps those most willing to accept Western medicine, and they may have other reasons for avoiding a discussion of *pajé vai*, this difference is nonetheless noteworthy. When asked why TB has proven so difficult to control, they pointed to the continued high rates of infection, the need for greater case detection, and a greater promotion and technical support of the role of the health promoter. They also emphasized the role of continued malnutrition in Pai communities as an important factor in the continued spread of TB. In other words, they attributed the difficulty of TB control to a lack of resources and project effort, and not to cultural differences.

Vaccinations must be done with regularity and good coverage (three doses and at least one booster dose) in order to ensure disease prevention. The cold chain of vaccine must be preserved, the vaccine must be given correctly, and to healthy recipients, in order to achieve the best effect. While all of these factors can, and do, make vaccination coverage difficult, the process of vaccinations has a number of advantages. Once a child receives several doses of vaccine, he or she is well-protected against disease. This is particularly true of the classic childhood vaccines, polio, measles, and DPT, which have excellent efficacy rates and low rates of complications. Once fully vaccinated, children are in essence fully protected for life. In addition, even children not receiving the vaccine are protected by herd immunity, because vaccination decreases the carriage rates of these diseases in the general population. Another advantage of vaccinations is that they have a clear and visible impact in preventing disease in the community. As in the case of Pai communities in 1978, people could see the protection of the vaccine.

While there is a vaccine for tuberculosis, BCG (bacille Calmette-Guérin), it is of limited efficacy. Efficacy rates in vaccine field trials have ranged from 0% to 80%, but no

single theory adequately explains these geographic differences.²¹⁵ BCG has been shown to effectively reduce childhood rates of TB meningitis, and other serious systemic infections in children,²¹⁶ but it has very limited efficacy in preventing adult cases of pulmonary TB, the most common form of TB in Pai communities. While no estimate of BCG efficacy has been undertaken among the Pai or in Paraguay, given its limited efficacy in other parts of the world, one must assume that the vaccine is not fully efficacious population.

Most sources suggest, however, that initial Pai acceptance of TB treatment was quite good. While many agreed to try treatment, cases of people abandoning treatment and the reservoir of infection have remained high.²¹⁷ Many leaders, in an effort to control the social consequence of *pajé vai*, have required that TB patients first undergo Western treatment before the search and punishment of a perpetrator will be considered.²¹⁸

Tuberculosis treatment results in rapid symptomatic improvement, particularly among patients with advanced disease. This visible and rapid symptomatic improvement has clearly led to some greater acceptance of Western TB treatment. However, unlike the visible effects of vaccination, in the case of TB, this rapid and visible improvement works to the detriment of TB control. While vaccinations provide immediate and almost life-long protection, often even if a series of three doses is not completed, TB requires prolonged treatment. Patients who feel markedly better will often stop treatment as soon as their symptoms disappear, but before they have been cured of the disease. They return to their communities, where, without adequate follow-up, they become sick again and serve as an active reservoir for new infections. The greater the number of incomplete treatments, the

²¹⁵Fine, Paul E.M., "The BCG Story: Lessons from the Past and Implications for the Future," *Reviews of Infectious Diseases* 11(Supplement 2): S353-S359, 1989, pp. S353-354.

²¹⁶Fine, Paul E.M., and Rodrigues, Laura C., "Modern Vaccines: Mycobacterial Diseases," *The Lancet* April 28, 1990, p. 1019.

²¹⁷Evaluación de los Programas de Salud, op. cit., p. 57.

²¹⁸Interviews with Pai promoters and leaders.

higher the risk of development of drug-resistant strains of TB, and of the continued spread of TB in the community.

In addition, many aspects of TB have made it a difficult disease to treat and prevent worldwide. TB can have a long incubation period, and is extremely infectious in the active disease state. For that reason, given that there are very high rates of TB infection and active disease in Pai communities, it is extremely difficult to prevent transmission. This is particularly the case given that Pai often live together in "chozas", traditional one-room houses, where one TB patient could easily infect an entire extended family. In addition, TB still requires months of treatment with a complicated drug regimen, and the development of drug resistance is not uncommon. For this reason, incomplete TB treatments, which result in greater drug resistance, are common, as are relapses. Coupled with incomplete or sporadic efforts to contain the disease, it is not surprising that TB is so difficult to contain. The rise of TB cases in the U.S. has similarly been associated with reduced public health expenditures, the development of drug resistance, and the large number of patients who, for various reasons, do not complete their treatments.

Finally, malnutrition represents an important predisposing factor to the development of TB. Because malnutrition continues to represent an important problem in Pai communities, this contributes to high rates of disease from TB.

The Pai concept of *pajé vai* undoubtedly contributes to resistance to TB treatment initially, and to an unwillingness to undergo the months of intensive therapy required to cure the disease. It also seems clear, however, that Pai communities now do accept many Western treatment modalities, and this is true for both vaccinations and TB therapy. While many of the Paraguayans in the project have attributed the "failure" of TB control to cultural factors, the evidence suggests that the technical difficulties involved in the treatment of TB, coupled with a failure to continue the intensive case-finding, treatment, and community intervention that the project undertook in the early 1980s, provides a more plausible explanation for the continued high rates of TB.

PART III: COMMUNITY PARTICIPATION AND VILLAGE HEALTH WORKERS (PROMOTERS)

Many health projects run into difficulties because they fail to achieve community participation and involvement, and thus do not fully incorporate community needs.²¹⁹ In this section, I will evaluate whether some of the difficulties in the PPT have been due to a lack of community participation. To look at this issue, I will specifically examine the formation of health promoters and their community involvement within the larger context of the project and the community. Apart from the community involvement at the project's inception, which will be briefly discussed, the health promoters represent the most visible and enduring component of community participation in the project. According to many sources, the health promoter has also become the single most important component of the health project.

While the evidence suggests that the project has lacked active community participation in recent years and that the role of the health worker as it was originally envisioned has been greatly reduced, these factors alone do not account for project failings. Rather, larger structural issues that will be discussed in the final section, are responsible for emerging project difficulties.

Background

The global concept of village health workers (VHWs) and the emphasis placed on community participation originated with the proposal for primary health care (PHC) at Alma Ata in 1978:

Primary health care is essential health care made universally accessible to the individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. It

²¹⁹Mangelsdorf, Karen, "The Selection and Training of Primary Health Care Workers in Ecuador: Issues and Alternatives for Public Policy." *International Journal of Health Services*. 18(3): 471-493, 1988, p. 472.

forms an integral part both of the country's health system of which it is the nucleus and the overall social and economic development of the community.²²⁰

The village health workers represented the vehicle by which much of this expanded health care would reach rural communities. In many countries today, programs for the formation of VHWs have outlasted larger efforts to fulfill the broad goals at Alma Ata.

While there is much country-to-country variation, VHWs share a number of common characteristics which include: selection by their communities, limited formal training, an emphasis on simple, low-technology skills, the delivery of direct curative services to their communities, a role as "agents of change", and a link between the rural community and government health services. While many countries have selected VHWs, not all of them have been selected with community participation or true local involvement. According to one researcher, "To find out whether VHWs are community-based, it is useful to look at VHW selection, role, and training."²²¹

While many researchers stress the importance of local involvement, different definitions of "community participation" abound, as do attempts to examine and assess it. Rifkin et. al., in an article which proposes a better instrument for measuring community participation, suggest the following working definition:

Community participation is a social process whereby specific groups with shared needs living in a defined geographic area actively pursue identification of their needs, take decisions and establish mechanisms to meet these needs.²²²

This definition emphasizes the geographic nature, common interests, and common needs of a community combined with an involvement that is active, involves choice, and has the

²²⁰Report of the International Conference on Primary Health Care, Alma Ata, U.S.S.R. September 6-12, 1978. Geneva: World Health Organization, 1978, p. 34.

²²¹Matomora, M.K.S., "Mass Produced Village Health Workers and the Promise of Primary Health Care." *Social Science and Medicine*. 28(10): 1081-1084, 1989, p. 1081.

²²²Rifkin, Susan, Muller, Fritz, and Bichmann, Wolfgang, "Primary Health Care: On Measuring Participation," *Social Science and Medicine*. 26(9): 931-940, 1988, p. 933.

possibility of being effective. A primary health care approach views community involvement as critical to overall service utilization and project success:

Participation of the community is predicated on the realization that medical technologies are less important for health improvement than what people themselves do or can do. Moreover, greater and more fruitful utilization of health services can be achieved only if people are involved in the service development.²²³

Pai Tavytera and Community Participation

The Pai Tavytera, who share a common ethnic background, as a whole represent a well-defined community. Each *tekoha* (Pai community), with its own system of political and social interactions, likewise represents a well-defined subunit of the *Pai retā* (Pai nation). Thus, the Pai clearly fit within the definition of community proposed by Rifkin et al.

The Pai Tavytera participated actively in the formation of initial project goals and objectives. As described previously, the project made use of the traditional Pai practice of *ary guasu* (large community meetings) to invite Pai feedback and participation. The project clearly sought from the beginning, according to one evaluation:

an active indigenous participation, in the area of the planning and executing of health work, with the objective of achieving coverage of services at the community level, and later to promoter (*propender*) the self-reliance (*autogestion*) of the project on the part of the Pai.²²⁴

Lengthy meetings between project organizers, Pai leaders, and Pai community members were held in which the project goals and an evaluation of the project achievements took place. Initially, it seems clear, Pai communities were actively involved and participating, in the truest sense of the word, in many aspects of the project.

²²³Matomora, op. cit., p. 1081.

²²⁴Berweger, et. al., 1983, op. cit., p. 45.

In 1978 the project decided to form health promoters (a Pai version of VHWs). While the community was not directly involved in this decision, they were actively involved in the selection of the promoters for each community. Over time the activities of the health promoters have come to represent the most enduring and visible manifestation of Pai community participation in the project.

PPT Health Promoter Formation

One of the basic project documents (Manual de Trabajo) mentions the formation of "enfermeros" (Pai nurses) who would use both traditional and Western medicine in the treatment and prevention of illness in their communities:

The objective of our action is the formation of "enfermeros" (nurses) in every *tekoha*, who will know how to use both his/her traditional medicine as well as the innovations transmitted by the team (equipo) in order to be able to collaborate effectively in the fortification of Pai health. Simultaneously, we will provide massive protection by systematic vaccination with BCG, DPT, tetanus, and measles, against certain diseases and we will try to find and treat the sources of TB until we achieve definitive control. Thus, we conceptualize our action in the area of health not as technical measures, but rather social and educational.²²⁵

Thus the concept of Pai health workers, referred to as "enfermeros," originated early on in the project (1975), and predates much of the international discussion about primary health care and the selection of village health workers that began after 1978.

Interestingly, however, all of the former project members whom I interviewed attributed the formation of the promoters to the failure of TB treatment in the hospital in Taji after 1978. At that time, the impetus for the selection of the "health promoters," no longer called "enfermeros" by the project, was a need to improve the treatment of tuberculosis in the community.²²⁶ This decision was also, no doubt, influenced by

²²⁵Manual de Trabajo, op. cit., p. 99.

²²⁶Proyecto Pai Tavytera, 1988, op. cit., p. 36.

international enthusiasm for the Alma Ata concept of primary health care and the selection of village health workers.²²⁷

The health promoters were selected and trained in the project at a time when other promoters for different projects, such as agriculture and education, were also being formed. This period in the project corresponded to a shift in the project outlook and ideology in which several members of the PPT wanted to take a more active role in promoting social change and transforming Pai communities. One former member of the project has commented that:

There has emerged in recent years, encouraged by the PPT, a new figure, the Promoter, who ended up interfering in the political organization of the communities. Generally young, the promoter, theoretically, was to act to change the problems in a society confronted by new situations.²²⁸

Another evaluation of the project has commented that:

These agents work from within their respective groups, undertaking work based on the needs sensed by the community. Little by little, these things become community interests, aspects of --land, social unity, health, women's participation.²²⁹

The ramifications of this shift in project ideology will be discussed in more detail in the final section, but it is important to note that this change had an important impact on the project's concept of the Pai health promoter. One evaluator has remarked that the presence of other types of promoters (agricultural, teachers) and the community education courses in which all took part, strengthened the role of the health promoter, and enabled more success than if the health worker had acted alone.²³⁰ The project's tendency to replace the original term "enfermero" (nurse) with "promotor" (promoter) reflects the larger shift towards viewing the health promoter as a real agent of change and transformation within the community. While most members of the PPT now use the term "promoter" more

²²⁷Interviews with project evaluators of the PPT confirm this.

²²⁸Melia, 1992, op. cit., p. 5.

²²⁹Proyecto Pai Tavytera, 1988, op. cit., pp. 66-67.

²³⁰Berweger, op. cit., pp. 32-33.

frequently, Pai continue to refer to them as "enfermeros." This continued Pai use of the term "enfermeros" emphasizes their status as the purveyors of Western medicine and training over traditional knowledge, and not their role in social and community organization.

The initial impetus for their formation was thus the control of TB, although an awareness that the promoters could be trained for many different tasks soon followed. Training first occurred in Tavamboae, a Pai community devastated by TB.²³¹ The project worked there intensively for several months, and the nurses from the project spent weeks at a time (on a rotating basis) engaged in hands-on instruction in the communities. After several months, a similar process was undertaken in Cerro Akangue, another Pai community. One former nurse in the project described the intensive training process:

We began strongly with training courses in the communities. We held many meeting and would alternate staying in the communities from one week to 15 days at a time. Each community elected health workers...They held many meetings to choose the promoters. When they did, we would go to the community and stay for a prolonged period, a week at a time in rotating shifts. In addition to the training of the health workers, we looked actively for cases of TB...we gave them health talks (charlas educativas) and we taught them about diarrhea and vomiting...The promoters learned rapidly. There were many cases of TB so they quickly gained a lot of experience...The promoters were given two months of continuous training. During this training in Cerro Akangue, over 50 cases of TB were detected. Meetings were held every eight days. And the treatment was done in the community.

Once a few pairs of promoters were formed, they often accompanied project members in the training of new promoters in other communities.

Soon, however, many more communities were requesting the formation and training of health promoters, and the project began encouraging communities to select them. While the selection process was left up to the community, through the common Pai

²³¹Medina Huerta, et. al., op. cit., p. 3. This report notes that 16 people died as a result TB in Tavamboae in 1976, out of a total population of 118.

practice of an "aty" (community meeting), the project offered a number of suggestions of what sort of person would make a good promoter. In addition, the Pai, had a number of their own criteria that they added. According to another former nurse in the project:

So each community chose a pair of promoters with some orientation/guidance from us. They wanted to form pairs of promoters (steady married couples); that was their idea. We suggested that they choose people who are responsible, who are from that community, and who want to work hard and will be very dedicated (comprometido) because they wouldn't receive any salary or anything for the work they would be doing.

A pair of enfermeros was more culturally acceptable to the Pai community than young, unmarried individuals because it would permit the pair to travel together to attend meetings and carry out health activities. According to many Pai interviewed, suspicion may arise if either a man or woman spends a lot of time traveling alone, and it is more acceptable for women to treat women's health issues. The role of both male and female promoters is therefore seen as important. Practically speaking, the presence of two people in a community has made it easier to share the tasks and the knowledge, and for one of the pair to care for their family if the other one must attend to an urgent health need.

One evaluator of the project, assessed the selection of health promoters in the following way:

Apparently the "enfermeros" are selected with greater care than the Pai teachers (maestros). Generally they are well-integrated pairs who are no longer very young, who have already demonstrated interest in Pai traditional medicine, and who enjoy some authority apart from having a good social position.²³²

Other former members of the project, however, have contradicted this assessment and suggested that the promoters who were chosen were often young and socially marginal.²³³ Both comments may contain some truth: health promoters may have been better selected and integrated than Pai teachers, but still somewhat marginalized. In addition, the nature of

²³²Grünberg, Friedl, op. cit., p. 9.

²³³Interview with a former anthropologist in the project

the selection of promoters may have changed over time from well-integrated promoters to those who are more socially marginal, or vice-versa.

Several former project members have noted the importance of Pai political structures in the selection and continuing support of promoters. Promoters are almost always relatives, often younger brothers, of the local political (*mburuvicha*) or spiritual (*tekoharuvicha*) leaders, or of the dominant families, though these are often one in the same.²³⁴ Many people, including the Pai themselves, suggest that promoters achieve the greatest success when they have the strong support of the political leadership.

Because the idea of promoters originated out of a desire to find a community-based solution to TB, their initial training involved learning to give the required daily injections for TB treatment, identifying the classic symptoms of pulmonary TB and distinguishing them from other respiratory infections, taking sputum samples, calculating drug dosages, and doing record-keeping and follow-up of TB patients.²³⁵

As mentioned above, during the first few years the promoters were formed, the training occurred in an intensive fashion in the Pai communities. Later, promoters took part in literacy and health promotion courses provided by the education project of the PPT. Promoters learned basic reading and writing skills in Guaraní and Spanish, learned aspect of health education and community sanitation, and even participated in discussions about the uses and value of Pai traditional medicine.²³⁶ The training became more promotional and less focused on curative, technical care over the next several years.

With time the project has held many more training courses for the more than 25 pairs of health promoters that the PPT has formed. Fewer of these have occurred in the communities, and they have occurred more commonly in local hospitals and provincial cities. These training sessions include discussions of vaccines and vaccine-preventable diseases, TB, and other topics of health sanitation. Pai political leaders frequently also

²³⁴Interview with a former medical director of the project

²³⁵*Programa de Control de la Tuberculosis*, op. cit., p. 12.

²³⁶Proyecto Pai Tavytera, 1988, op. cit., p. 64.

attend these training meetings, and they are always invited. They often take active part in the discussion, and frequently mention the critical role of the promoter in the community and the need for the promoter to work very hard to improve community health.

In recent years, the Ministry of Health has sponsored many of these talks, provided materials, and incorporated Pai promoters into its own efforts to train rural village health workers (VHW) in the countryside. The Ministry of Health describes its goals in incorporating Pai promoters:

With the objective of undertaking a more adequate supervision of treatment in the community (rural areas) and detecting cases, as well as to enhance work in the area of sanitary education, indigenous promoters will be trained in the TB control program. They are elected by the people, enjoy their confidence, and currently constitute one of the pillars of this work [TB control].²³⁷

In general, the Pai promoters have years of knowledge and experience beyond almost any other VHW in Paraguay. In the province of Amambay, non-indigenous VHWs have been formed for the first time only within the last year. Many of them have learned only basic ideas about health sanitation, and none enjoy the autonomy and scope of action that the Pai do. A small group of Pai promoters now routinely vaccinate Pai communities entirely on their own, submit health reports, follow TB patients, and give health talks all under the auspices of the Ministry of Health.²³⁸

One former member of the project described current function of the health promoters:

Today, the principle function of the Promoters seems to be in relation to the Casa Pai in Pedro Juan Caballero, almost an institution in the Pai world in terms of an indigenous space immersed in the reality of Paraguayan society, for certain activities and needs: hospital visits, the treatment of the sick, some administrative tasks, and business with the "whites;"

²³⁷Ministerio de Salud Pública y Bienestar Social (MSPyBS). Informe Sobre Capacitación a Líderes de Comunidades Indígenas: 6 de Mayo de 1992. Asunción: MSPyBS, 1992, p. 8.

²³⁸Interviews with PPT personnel, and Ministry of Health workers in Amambay.

and, for the majority, a distraction that is permitted from time to time.²³⁹

Promoters clearly serve as important links to the Ministry of Health and other health services, as well as to the larger Paraguayan society as a whole. The increased contact that promoters have, as suggested in the above quote, is not without its risks. There have been several cases of promoters who have lived for long periods in the cities (Pedro Juan Caballero and Capitan Bado) who have developed severe problems with alcoholism and a sense of alienation from their communities.²⁴⁰

Pai Promoters as Village Health Workers

Pai health promoters fit the tenets of a village health worker (VHW) well, although their formation was not initially envisioned within the overall international movement of primary health care. As described above, the communities actively participated in their selection. Much of their training has occurred in the community and, apart from TB treatment, has included community sanitation, vaccination, and the provision of treatment for acute respiratory infections, diarrhea, skin diseases, and parasitic infections, all of the most important basic health issues.²⁴¹ The project has emphasized promoter delivery of basic services to their communities and more recently has emphasized the concepts and skills of disease prevention.²⁴² They are acting as agents of change and the purveyors of Western medicine, but this complicated interaction will be discussed at greater length below. Finally, while this was not initially envisioned by the PPT, the Pai health promoters have come to play a critical role as intermediaries between community health needs and government services in ways which will also be discussed below.

²³⁹Melia, 1988, op. cit., p. 8.

²⁴⁰Personal interviews with Pai leaders, promoters, and project members.

²⁴¹Grünberg, Friedl., op. cit., p. 5. See Mangelsdorf, op. cit., p. 472, for a discussion of typical VHW tasks and skills.

²⁴²Berweger, 1984, op. cit., p. 31.

The greatest weakness in terms of the role of the health promoter in relation to the community is the fact that communities have had variable levels of involvement in defining promoter roles. The project certainly was aware of the importance of local involvement in defining promoter functions and roles:

To the degree that communities participate in the definition of the role (functions) of the promoters, there are greater possibilities for them to avoid turning into agents of conflict (e.g.. Cerro Akangue).²⁴³

However, many communities have not been involved in this process and this has generated greater community conflict. Communities did select their promoters but have often had little say in determining what the role, responsibilities, and skills of the promoters should be.

Both the initial conception of the "enfermero" expressed in the Manual de Trabajo and the later idea of health promoters for TB treatment originated within the project, and not community. One Pai community leader has commented that:

This idea (to form promoters) came from the people in the project, and they were the ones who promoted it. The personnel of the project convinced us that someone was needed in each community, a promoter, or a teacher who could teach in the community. And we did not accept this completely at first, but 3, 4, or 5 meetings were held, and then we accepted it and so it began. There was training for promoters and for teachers (maestros) for each community. So it was not an initiative of ours, but an idea from the project.

Critiques of the Role of the Village Health Worker

The concept of using village health workers to foster the provision of PHC services has several advantages. VHWs usually know the language and social and cultural

²⁴³Berweger, et. al., 1983, op. cit., p. 69.

characteristics better than other outside health personnel.²⁴⁴ They are from the community and the same social circumstances as the people they will be serving. Ideally, therefore, VHWs are more community-oriented, accessible, and willing to listen to and learn from the community. VHWs may also be far more willing than other health professionals to live at the level of the rest of the community.²⁴⁵ The use of these unpaid workers also keeps project costs down and promotes better service coverage.²⁴⁶

Pai promoters know their cultural, social, and political situation well. Because the project has often had difficulty getting Paraguayan project members to agree to stay long periods in Pai communities in the past, the continuous presence of the promoters is an important advantage. This difficulty was one of the reasons the TB hospital in Taji was abandoned. Promoters in the community act as sentinels and grass-roots epidemiologists who can monitor health conditions and report disease outbreaks to the state.²⁴⁷ As mentioned above, Pai promoters are better trained technically, have more experience, and are more active than any other promoters in Amambay, indigenous or criollo.

Pai promoters also act as intermediaries and cultural interpreters between their community and the project health team.²⁴⁸ Finally, Pai promoters play an invaluable role in connecting community members to state services. One of the most commonly described tasks that they reported in interviews was to accompany a sick individual from their community to the local hospital. Many promoters are well-known to the hospital staff and they ensure that other Pai receive adequate attention and proper treatment. They are more

²⁴⁴Bastien, Joseph, "Community Health Workers in Bolivia: Adapting to Traditional Roles in the Andean Community." *Social Science and Medicine*. 30(3): 281-287, 1990, p. 286.

²⁴⁵Werner, David, "The Village Health Worker--Lackey or Liberator?" Prepared for the International Hospital Federation Congress Sessions on "Health Auxiliaries and the Health Team", Tokyo, Japan, May 22-27, 1977, pp. 13-15.

²⁴⁶Berweger, 1984, op. cit., pp. 27-8.

²⁴⁷ Pai promoters were the first to report an outbreak of acute dysentery that had killed 10 people in one Pai community. (Reported in *Analisis del Mes* ("Indigenismo: Graves Problemas de Salud" *Analisis del Mes* 8 (91) Junio 1993, pp. 24-25.)

²⁴⁸Berweger, 1984, op. cit., p. 28.

familiar, and thus less intimidated by, the health services, and will guide community members through the treatment process. One leader described Pai fear of state services in the following way:

We are sometimes very timid and not able to fight to get what we want. When someone puts up a barrier, we simply give up and return to our communities. We lack a little aggression. We still can't always execute our rights.²⁴⁹

Pai promoters, who are more familiar and therefore self-assured, intervene frequently on behalf of hospitalized patients.

Finally, the promoters who enjoy a broad-based support from political leaders and the community have far greater success than those who do not. In communities with good relations between political leaders and promoters, such as Cerro Akangue, health promoter activities have been extensive and very successful. In contrast, in communities where political or religious leaders oppose their work, such as Yvypyte, Jakaira, and other communities, very little has been accomplished.²⁵⁰ Many such examples can be found of the importance of promoter support by Pai leadership.

The formation of health promoters was cited in interviews with the Pai and PPT staff as one of the most important overall achievements of the project. This is due to all of their roles as discussed above, as well as to the fact that the promoters represent a clearly identifiable, and continuous, project creation.

Yet many researchers have identified a number of problems with the VHW model. Robinson et. al. cites a high turnover rate, absenteeism, a poor quality of work, and low morale as some of the problems with VHWs.²⁵¹ In the case of the Pai promoters, there have been low rates of turnover, although some communities have selected new promoters

²⁴⁹Personal interview with Pai leader.

²⁵⁰Interviews with Pai leaders, promoters, and PPT staff.

²⁵¹Robinson, Sheila, and Larsen, Donald E., "The Relative Influence of the Community and the Health System on Work Performance: A Case Study of Community Health Workers in Colombia," *Social Science and Medicine*. 30(10): 1041-1048, 1990, p. 1041.

when old ones were not doing their job.²⁵² Most of the promoters interviewed have been working in their communities for several years, and promoters from the North, who were not interviewed, have worked for several years more than those in the South on average. While it is difficult to assess absenteeism and poor quality of work, in interviews promoters did express frustration at the project's inability to provide more training, literacy skills, or logistic support. Many promoters desire more literacy skills in Spanish and Guaraní, as well as more frequent and more technical training courses.

In general, other researchers have cited frustration and a lack of authority, controversy as to whether promoters should receive compensation, and a failure to incorporate traditional medicine as problems.²⁵³ Bastien (1990) also notes that VHWs do not fit comfortably into the leadership structure of either modern or traditional medicine,²⁵⁴ a fact which can produce conflicts in both sectors. Finally, a number of researchers have suggested that, while in some senses VHW programs are less costly, they are labor intensive, require the preparation and cooperation of the community, and intense promotion to truly involve communities and achieve success.²⁵⁵

Many of the above critiques and debates apply to the status and role of Pai promoters. While Pai promoters have never received a salary, whether and what type of remuneration they should receive has always remained controversial. Berweger (1984) suggests that Pai promoters need some form of compensation.²⁵⁶ This problem continues, and the most recent PPT budget includes a small salary for one promoter to act as a coordinator for the first time. However, during my visit, this had become the subject of great controversy. The promoter who had been selected to receive the salaried position did not appear at the training course, as it later came out, because he was dissatisfied with

²⁵²Interviews with Pai leaders and promoters, and with project staff.

²⁵³Bastien, 1990, op. cit., p. 282, and Berweger, 1984, op. cit., p. 33.

²⁵⁴Bastien, 1990, op. cit., p. 281.

²⁵⁵Berweger, 1984, op. cit., p. 23 and p. 32, and Bastien, 1990, op. cit., p. 284.

²⁵⁶Berweger, 1984, op. cit., pp. 33-34.

the low salary. In addition, he felt that the new project had not allowed him enough use of the project's one vehicle, another chronic source of project tension. While the use of project vehicles, free transportation to the cities, public recognition via ceremonies and health worker cards, and training courses represent other means of remuneration for the work provided by promoters, even these steps can become the subject of a great deal of controversy.

Many of those in the project, including evaluators, have remarked on the difficult and time-consuming nature of training and following up rural promoters. Many of the former nurses and medical directors noted that the project worked at this goal intensively in the early 1980s, but has since had difficulty maintaining that time and resource commitment it truly requires to train, support, and oversee all Pai promoters.

While promoters appear well-adapted to social and political structures, the project's initial intentions and efforts to include traditional medicine have not resulted in widespread use or promotion of traditional medicine by Pai promoters. The health promoters are clearly identified by the community as the purveyors of Western medicine (they are the "enfermeros"), and while they may continue to use traditional medicine, as many in their communities still do, they do not encourage it in a systematic way. Similarly, the project no longer promotes traditional medicine through the mechanisms (education project, training courses) that it did initially.

VHWs As An "Imposition From Above"

Some researchers contend that the biggest risk of an international focus on village health workers is that the policy will result in "VHWs for all", instead of "Health for All" (the slogan for primary health care), and that this represents "a fatal narrowing of the original ideal of PHC."²⁵⁷ But these critiques are strongest for projects in which VHWs have been mass-produced at the national level without any community involvement in

²⁵⁷Matomora, op. cit., p. 1081.

defining the role or true selection of the VHW. VHWs selected without their community's involvement are nothing more than an "imposition from above:"

Communities should be allowed to go through the process of identifying their problems, sorting out their priorities, means of solving identified problems through the material and human resources they have at their disposal. Before communities have been allowed to go through such a process, the selection of VHWs is at best, an imposition from above. PHC is thus robbed of its most fundamental components, of community participation, self-determination, and self-reliance.²⁵⁸

Similarly, David Werner and others suggest that many governments do not support their own rhetoric about the role of VHWs, for if they did it would mean supporting a true social change, something many governments do not intend to do:

Let us consider the implications in the training and function of a primary health worker...if he is encouraged to think, to take initiative and to keep learning on his own...chances are that he will work with energy and dedication, will make a major contribution to his community...Thus, the village health worker becomes an internal agent of change, not only for health care, but for the awakening of his people to their human potential...and ultimately to their human rights. In countries where social and land reforms are sorely needed, where oppression of the poor and gross disparity of wealth is taken for granted, it is possible that the health worker I have just described knows and does too much. Such men are dangerous! They are the germ of social change.²⁵⁹

There have been numerous examples of VHWs who were truly community-based who, because of their efforts on behalf of their communities, have been subject to threats, imprisonment, torture, and death.²⁶⁰

²⁵⁸Matomora, op. cit., p. 1081.

²⁵⁹Werner, David, "Health Care and Human Dignity: A Subjective Look at Community-Based Rural Health Programs in Latin America," Paper Presented at a Symposium on Appropriate Technology and Delivery of Health and Welfare Services for the Disabled in Developing Countries in Oxford, England, September 26-30, 1976, p. 49.

²⁶⁰Ugalde, Antonio, "Ideological Dimensions of Community Participation in Latin American Health Programs," *Social Science and Medicine* 21(1): 41-53, 1985, p. 43, and Bastien, 1990, op. cit., p. 281.

Yet these critics, for the most part, refer to government-sponsored VHWs, or those formed in large projects whose goal is their mass-production. In the case of the Pai Tavytera, however, the promoters clearly emerged within the context of a rural development project, and the community was very involved in the selection of Pai pairs of promoters. The more recent incorporation of Pai promoters within government training courses and VHW structures, nevertheless, does threaten the cultural and community-specificity of the Pai approach. VHWs that have been formed in non-indigenous communities in Paraguay have followed the pattern of which many researchers are more critical: VHW selection without much community participation, mass-production, and neglect of the true tenets of primary health care.

Some researchers have proposed similar arguments about the rhetoric of community participation. As Rifkin simply states, "Participation cannot be divorced from equity,"²⁶¹ implying that participation alone, or a project's claim that it is involving the community, is insufficient. Antonio Ugalde goes further, however, to demonstrate that claims of community participation often mask government attempts to destroy true local involvement and replace it with token and symbolic community participation.²⁶² These government activities undermine local traditional structures and legitimize the provision of low quality care to poor communities.²⁶³

True community participation is at a similar risk with Pai promoters if PPT projects become a part of government structures uncritically. Rural community meetings and committees often do serve a more symbolic than real function in Paraguay, and while this is not currently true of the PPT, it is a risk that must be evaluated if promoters continue to become more involved in larger government programs.

Pai Promoters as "Agents of Change"

²⁶¹Rifkin, op. cit., p. 931.

²⁶²Ugalde, op. cit., p. 48.

²⁶³Ugalde, op. cit., p. 48.

One definition of VHWs assumes they will all be "agents of change" who introduce new health care possibilities, as described above. Berweger (1984), however, identifies three classes of promoters: (1) agents of change who introduce new ideas and concepts, (2) intermediate agents who make use of both systems, and (3) agents who are primarily traditional.²⁶⁴ In this sense authors David Werner and Joseph Bastien, while desiring the same end goal, represent opposite ends of this continuum. Werner focuses on the potential of community-based VHWs to promote social transformation, whereas Bastien envisions the role of VHWs in introducing new health innovations only within the framework of a strong knowledge of and collaboration with, traditional medicine.²⁶⁵

While the initial PPT, in the Manual de Trabajo, conceived of the "enfermeros" as intermediate or more traditional agents, changes in project ideology and methodology have converted them into social promoters, or agents of change.

The initial project sought to make use of both traditional medicine and modern innovations. It sought to introduce only the minimal amount of new technology that was absolutely necessary, and to do so very cautiously. Indeed, it appears as though at first the project did incorporate at least an acknowledgement of traditional medicine. According to one former member of the education project:

There was a consciousness in the project that there was a need to respect traditional medicine. There was a great deal of valorization of it. I don't know to what extent there was real knowledge or use of it in practice. But there was an effort to learn about it. It is not a simple, straight-forward, matter...At the same time health promoters were involved in the education project, many of them were also studying that which was their own, i.e. traditional medicine. And we were very aware of that.

One former nurse in the project described early training sessions of the education project in which promoters would bring in and try different medicinal remedies for treatment, (*poha*

²⁶⁴Berweger, 1984, op. cit., p. 30.

²⁶⁵See Bastien, 1990, op. cit., pp. 282-286, and Werner, David, 1977, op. cit., pp. 5-10.

ñana) and only resort to Western medicine when they did not appear to be working. She noted also, however, that:

They tell us that they do use [traditional medicines], but we are not certain of that. They are familiar with many different remedies, but they may not necessarily put that knowledge into practice.

Over time, however, the project appears to have abandoned its strong encouragement of the use of traditional medicine by promoters. In my two visits with promoters (1990 and 1993-1994), very little mention was made of traditional remedies, and they were not discussed in any of the training courses or informal sessions that I observed.

Even more significantly, however, the project appears to have abandoned its policy of the careful and minimal introduction of new ideas. In one evaluation, the project makes a clear statement of this fact:

In promotional work, it is better to make mistakes (*meter la pata*) by being too hasty in the transfer of compromises and responsibilities, than to feel frustrated by experiencing negative paternalistic effects.²⁶⁶

Therefore the project came to support Werner's vision but by so doing, ignored the dangers identified by Bastien. Particularly in projects involving indigenous populations, this desire to impose a different social vision can have serious social consequences. This methodological and ideological shift has had a number of important consequences for the project in the areas of political interactions, relation to traditional medicine, and project sustainability.

The role played by promoters has given many of them a new status within the community and has occasionally led to conflicts with the community, and with political (*mburuvicha*) and spiritual (*tekoharuvicha*) leaders. In several cases, effective health promoters with poor community relations have been forced to move to other communities. One promoter in particular, who has a long history with the project and is widely known

²⁶⁶Proyecto Pai Tavytera, 1988, op. cit., p. 111.

for his experience and technical expertise, has had to move several times and no longer works as a promoter in any Pai community, although he continues to work with the project at the Casa Pai. His technical expertise could not overcome the fact that he posed a threat to traditional leadership structures and was unable to gain support from community leaders. Even when the conflicts have not been as obvious, political leaders will often display passive resistance to the activities of promoters.²⁶⁷ One political leader has commented that:

Right now the promoters aren't working very well in the communities because there is a lack of support of the *mburuvichas* and the other leaders.

As this new model of social transformation has been promulgated, Pai promoters have become more distanced from traditional medicine. According to one former medical director:

The doctors of the PPT always accepted parallel systems...But this was never thoroughly investigated. When the Pai enfermeros were formed, they were only trained in scientific medicine and training in traditional medicine was neglected. Young people were chosen as enfermeros but this led to more conflicts. They did not work towards (search out) coexistence with traditional medicine. We, as doctors, on the other hand, never came into conflict with Pai doctors.

One political leader notes the conflicts that can arise:

Sometimes in the community there are priests (*pa'i*, *tekoharuvicha*) who do not accept the idea that there are diseases that need to be treated with Western medicine. They only accept treatment with their medicine or with prayer. So in many communities the promoter cannot progress with his or her work. They are stalled because they have a conflict with the religious authorities or beliefs.

Finally, while the promoters have historically played a significant role in the health project and in improved Pai health status, this change in project approach now threatens their achievements. As will be discussed in the final section, changes in project

²⁶⁷Grünberg, Friedl, op. cit., p. 24.

methodology account for many project difficulties, including some of those arising with the promoters.

Current Community Participation

Pai continue to participate in project discussions now, although the reduced nature of the project has meant that the large project meetings to evaluate project methodology are not as common. One important way in which local involvement has changed, however, is that the Pai community as a whole participates far more actively and vocally in national society in large measure as a result of the project. The project's original work method and its success in improving social stability and health conditions have contributed to a resurgence of traditional political and social activities. According to Bartomeu Melia:

Pai communities, in recent years, and thanks in large part to the conditions sustained by the PPT, have been able to restore many of their "*mburuvixa*" in their true dimension, thanks to the renewal of a very traditional institution that was little by little neglected: the "*aty*," the meeting...The *aty* have become the most authentic space of Guaraní politics, and where the *mburuvixa* have the possibility of demonstrating their authenticity and valor.²⁶⁸

While Melia focuses on the renewed role of the *mburuvicha*, he also points out that the Pai meetings (*aty*) have reappeared as an important means of Pai community involvement.

Melia also suggests that this resurgence of Pai participation has countered project attempts to impose the role of the "social promoter" and some PPT member's ideas about social transformation, and has enabled Pai communities to find a new equilibrium:

The re-equilibrium was searched for in the same source: in the meetings (*aty*) that came to function as periodic steps and with greater participation. In order to revitalize the meetings, resources were used that went beyond the traditional ones, and included vehicles, written notes and advisories over the radio, and a plan for housing and food.²⁶⁹

²⁶⁸Melia, Bartomeu, 1988, op. cit., p. 7.

²⁶⁹Melia, Bartomeu, 1992, op. cit., p. 5.

Melia clearly describes how the resurgence and renovation of a traditional form, the *aty*, has served to counter project attempts to impose an outside ideology. This resurgence has countered project attempts to transform promoters into "agents of change." According to Melia:

What can be said for now is that these two types of leadership have not been shown to be positive, and have come into strong conflict. The dangers of the function of "promoter" have been sufficiently controlled by the *mburuvicha* and their *aty* (meetings). Without external resources, that is to say, without the functions that the same PPT directs at them, the promoters have resulted in almost nothing.²⁷⁰

Melia thus suggests that the project has contributed to the strengthening of Pai political and social structures. The Pai formation of its own organization with the help of the project, Asociación Pai Tavytera (The Pai Tavytera Association) represents another manifestation of this greater political vigilance. These organizations have been visible in Pai attempts to confront national society in a unified way, but they have also appeared in Pai responses to project interventions. The Pai have used these same achievements in political organization to counter the threats they have perceived from project attempts to impose alien ideas and social structures. The strengthened role of the *mburuvicha*, and the use of the *aty* have neutralized the power and resources accorded to the promoters by the project.

The fate of Amelio Morilla, a *mburuvicha* of Taji represents an example of this dynamic. Amelio became involved in numerous project activities, and for a time worked as an agricultural promoter. The community of Taji had a long history of intensive involvement in the project, and it served as the site of the TB hospital, several schools, and numerous other activities. Amelio tried to assume power, with the help of INDI, over all Pai communities. This occurred during the time of the project "crisis." However, when other Pai members became skeptical of INDI promises, in a large Pai meeting (*aty*) they removed Amelio from power and re-established social order. Thus while Amelio's power

²⁷⁰Melia, Bartomeu, 1988, op. cit., p. 8.

derived in many ways from his involvement with the project, internal mechanisms of Pai politics were used later to remove him from power.²⁷¹

Summary of Part III

The PPT achieved widespread Pai participation in the early stages of the project. While the idea to form health promoters derived from project members and not the community, Pai communities have been actively involved in selecting promoters, and in some cases, in defining their roles and responsibilities within the community. Much of the promoter training was initially done in an intensive, hands-on fashion in the communities, although has occurred less frequently in recent years.

Over time the project ideology has shifted to one which promotes the incorporation of new ideas about social change and the use of promoters as "agents of change." While this created increased social tensions, Melia convincingly argues that the project's contribution to renewing traditional social and political structures has effectively neutralized the threat that these new promoters posed. While a reduced project budget, personnel, and vision in recent years has made the use of large community meetings more difficult, the project has contributed to strengthened Pai social institutions and to greater Pai political participation at the national level.

A lack of community participation, therefore, cannot explain the project difficulties, or its changes over time. The health promoters have been selected by the community and with a great deal of community participation, and Pai participation in the project and the nation as a whole has continued.

²⁷¹Grünberg, Friedl, *op. cit.*, pp. 23-24.

PART IV: STRUCTURAL CONSTRAINTS

In this final section, structural aspects of the project and their impact on the project's outcome and possible sustainability will be discussed. Previous sections have demonstrated that, while cultural considerations and community participation did pose some difficulties for the project at various times, they are not the cause of the more significant changes that have occurred in the project over time. This section will evaluate whether the changing project ideology, the role of foreigners, project "bureaucratization," and the changing project research and evaluation capacity might account for the project's changing makeup and success.

Changing Project Ideology

As described in the previous section in reference to promoters, a project approach that originally sought to respect Pai culture and autochthonous institutions above all else, came, over time, to see its role as one of the promotion of a more active form of social transformation.

This original belief in the importance of allowing complete Pai autonomy stems from the Barbados Declaration, with which the founders of the project, the Grünbergs, were closely linked. This document states that:

It is necessary to acknowledge that the liberation of indigenous populations is realized by the people, or it is not liberation. When elements that/who are alien to them pretend to represent them or take the lead in their struggle for liberation, a form of colonialism is created that expropriates from indigenous communities their inalienable right to be the protagonists in their own struggle.²⁷²

²⁷²Indianidad y Descolonización en América Latina: Documentos de la Segunda Reunión de Barbados. México: Editorial Nueva Imagen, 1979, p. 11.

The project thus clearly believed at its inception that the Pai should be the protagonists of the project, and that any introduction of new ideas, leadership, or approaches by the project would constitute a form of neocolonialism.

Time and again project members referred to their work as a process of "accompaniment" (acompañamiento).²⁷³ The use of this term reflects the project's insistence on the idea that the PPT should help to strengthen Pai social structures and improve living conditions, but that the Pai themselves, and not the project, must be the true protagonists in the struggle. The project members merely "accompanied" the Pai in their efforts.

Over time, however, as new people became integrated into the project, these ideas began to change. Most notably, a group of people who had previously been involved in struggles for peasant liberation became part of the education project. While many of these individuals had no previous experience working with indigenous populations, they brought with them a wealth of experience in rural areas and great dedication to the project.²⁷⁴ Many of them had suffered torture and imprisonment, or the threat of it, at the hands of the government, due to their involvement in the Peasant Rural Leagues (Ligas Agrarias) in 1975-1976.²⁷⁵

This group also brought with them, however, a different vision of social change and the meaning of community involvement. As one former director of the education project stated:

The goal of the education projects was to make people conscious of a certain reality. It was not simply a matter of technical questions, but also a further involvement in the social reality, in the problems facing the community. This approach was taken with the promoters also.

²⁷³Personal interviews with current and former project members.

²⁷⁴Interview with former project anthropologist.

²⁷⁵Interviews with project members who were former members of the Ligas Agrarias.

This outlook closely follows and is based on the Christian ideas of liberation theology that were commonly held among the religious community and rural activists at this time in Paraguay and many parts of Latin America.²

According to Friedl Grünberg, in a study of the Pai Tavytera Project, this group within the project, which came to dominate the project's outlook after 1980, however well-intentioned, violated one of the most basic, though unwritten, tenets of the project. She noted that:

In their Christian and democratic idealism, the Paraguayan collaborators in the project considered that the means of distribution among the Pai were very unjust and they condemned the use of power of some Pai without having sufficient knowledge of the mechanisms that the Pai have to return the equilibrium from such "disharmony." They began to think of "solutions" with methods that they had known and developed in their own society.

In this way they deviated from the most fundamental work methods of the project: that of accompanying the Pai in their process, without intervening or manipulating, and undertaking besides regular reflections at the personal level and at the level of anthropological knowledge in order to avoid, where possible, unconscious transferences of values and structures.²⁷⁶

After 1980, as these former campesino organizers took control of the education project, and later direction of the project as a whole, the idea of non-intervention was set aside, and the project undertook the formation of "promoters" in health, education, and agriculture, and became more involved in promoting Pai social transformation. Several critics of this group have attributed the subsequent problems in the project, and the "crisis" in 1986-1987 to this shift in project ideology.

²⁷⁶Lemoux, Penny. Cry of the People: The Struggle for Human Rights in Latin America-The Catholic Church in Conflict with U.S. Policy. Garden City: Penguin Books, 1980.

²⁷⁶Grünberg, Friedl, op. cit., p. 16.

Foreign Role

Many Paraguayans who are or have been members of the PPT express ambivalence about the role played by foreigners in the project over the years. While most acknowledge that foreign involvement was essential for the initial project formation and financing, some have expressed frustration at the continuing biases that this fact has created and revealed.

Several sources have suggested that when the Grünbergs arrived in Paraguay in 1971, they brought a unique and innovative perspective about indigenous populations, anthropology, and land rights that no one else in Paraguay had at that time and one which was critical to the project's initiation and early success. According to one former nurse in the project:

In Paraguay, people were acquainted with *indígenas*, but they were very discriminated against. The anthropologists went out to the communities and got to know the *indígenas* in their own environment, so they had a different view of things. Without the anthropologists, the indigenous communities would have disappeared. They helped a lot with the economic support for the project also.

While there were a few anthropologists in Paraguay at that time and one, Miguel Chase-Sardi, attended the Barbados meeting, the Grünbergs brought a new perspective and access to foreign resources. Another former project member who was interviewed cited the project's early emphasis on land rights and obtaining communal land titles for each *Pai tekoha* as a critical innovation and contribution of the Grünbergs to national ideas about indigenous communities.

The Grünbergs obtained the first and most important financing for the project from European non-governmental organizations. Many of these Swiss, German, and Austrian organizations (Bread for the World, the Swiss Red Cross, Misereor, and others) have provided the most significant source of funds over the project's more than 20-year history.

While acknowledging that foreign participation was critical at the project outset, many Paraguayans have complained that these foreign organizations did not trust Paraguayan members, were less likely to continue funding the project once the foreigners

had left, and were more likely to commission evaluations by and trust the results from those undertaken by foreigners. One Paraguayan project member stated that:

He [one of the project directors] was very able, and was willing to share his knowledge with us. But one of the failures was his (and other's) inability to recognize that we also can do things.

Thus many Paraguayans expressed frustration at the need to rely on foreign participation and the perception, by the funding agencies, or the foreign project members, that they were not capable of obtaining and administering funds themselves. They also attribute the difficulty in obtaining funds for the project in recent years to the fact that foreigners are no longer involved in the project.

Several former project members who were interviewed also expressed frustration with aspects of the funding process itself that other researchers have noted. Trostle and Simon (1992) identify several common "donor-based constraints." They include the need to spend large amounts quickly and to satisfy a changing domestic agenda, the division of money for primary health care into a variety of vertical programs, the competition among donors for "fundable" issues, a neglect of quantitative measures, and very short project funding cycles.²⁷⁷ Several of those interviewed in Paraguay suggested a number of these factors, such as the short funding cycles and uncertainty from one year to the next about what would receive funding, as common difficulties in dealing with international donors.

One example from the PPT of the negative effects resulting from foreign financing constraints was the division of the health project into two parts, North and South. While the two project teams frequently worked together and coordinated activities, the projects were financed separately, and by different NGOs, for many years. In the last several years, the PPT has only worked in the South (Capitan Bado) as a direct result of the fact that it has been unable to obtain financing for the Northern project (Pedro Juan Caballero).

²⁷⁷Trostle, James, and Simon, Jonathan, "Building Applied Health Research Capacity in Less-Developed Countries: Problems Encountered by the ADDR Project." *Social Science and Medicine*, 35(11): 1379-1387, 1992.

Not only is the North now without any project assistance, but tension appears to be developing between the Northern leaders, who have historically had greater control over the PPT and its resources, especially the promoters, and the leaders and promoters of the South.²⁷⁸ This was identified in a project evaluation in 1983 as a potential problem, but the project has been unable to obtain funding for the two areas jointly and in recent years has been unable to obtain any funding for the North.²⁷⁹

Finally, donor organizations often require periodic assessments of the projects they fund by outside evaluators. Many of the Paraguayans who were interviewed commented that, because they felt these evaluations were imposed from outside and demonstrated a lack of trust, they generally resented them. As a result, the project as a whole often either discounted the evaluation findings or did not follow the recommendations of such evaluations.

There is an understandable basis for the project member's frustration with the evaluation process of international donors. Most donors do evaluate the projects that they fund at regular intervals.²⁸⁰ Engelkes (1993), however, in an assessment of the evaluation process, notes numerous problems that can occur:

Donors often do not follow their own policies concerning evaluation, and different donors have different views and practices concerned with it. There is no agreement among donors on how to evaluate health projects in general, and PHC health projects in particular. Many donors have policy statements on evaluation which are hardly adhered to. 'Recipient' countries are often not involved in the evaluations. Projects funded by different donors in one country are evaluated with different criteria, regardless of the criteria the recipient country uses.²⁸¹

²⁷⁸I was able to observe this tension during my most recent visit, in which Northern leaders showed up unannounced (and uninvited) at a training for health promoters in the South. During the meeting, they expressed concern that there were no project activities in the North.

²⁷⁹Berweger, et. al., 1983, op. cit., p. 70.

²⁸⁰Engelkes, Elly, "What are the Lessons from Evaluating PHC Projects? A Personal View," *Health Policy and Planning* 8(1): 72-77, 1993, p. 72.

²⁸¹Engelkes, op. cit., p. 74.

Engelkes outlines many of the complaints that Paraguayan project members expressed in interviews. The evaluators often bring their own methods, arrive for very short and unstructured visits, and do not fully incorporate local project members into the evaluation process. Evaluators often emphasize quantitative results (number of vaccinations, cases of TB detected), and complain that the projects they are evaluating lack clear objectives or baseline data. While donor agencies do take the results of these questionable evaluations seriously, project plans are often determined regardless or in spite of project findings. In this context, it is not surprising, then, that local project workers resent and mistrust the evaluation process. Their reluctance to take the evaluation conclusions seriously or to incorporate recommended changes is also understandable.²⁸²

Project as “Entrenching Bureaucracy”

Foster (1987) describes how many international health organizations have taken on the classic characteristics of a "bureaucracy," in the manner formulated by Weber, over time.²⁸³ Several respondents suggested that the project, as it became more entrenched, took on many of the aspects of a bureaucracy that Foster identifies. His discussion of budgets, limited corporate memories, and doctrines is particularly relevant to the structural PPT changes that have occurred.

According to Foster, the uncertainty about the timing and availability of new funds prompts bureaucracies to "cast their past achievements in the best possible light, and describe future plans in the most glowing terms."²⁸⁴ Several former project members describe this practice of inflating project claims and future plans. In reference to the project's incorporation and use of traditional medicine, one former project member

²⁸²Engelkes, op. cit., pp. 75-76.

²⁸³Foster, George M., "Bureaucratic Aspects of International Health Agencies." *Social Science and Medicine*. 25(9): 1039-1048, 1987.

²⁸⁴Foster, 1987, op. cit., p. 1044.

commented that "A discussion of traditional medicine was always included in the reports, but this was pure talk ("blah-blah")."

Foster also notes that many projects do not learn from past mistakes, a practice he terms "limited corporate memories."²⁸⁵ Several PPT members similarly identified this tendency to repeat past mistakes, particularly in the case of the continuing difficulties with the agricultural projects. Even where difficulties have been well-described in evaluations and project reports, the PPT frequently has taken no action to change things and often seems to have even forgotten it has long identified these things as problems.

Many former staff members described the resistance within the project to openly criticize one another, to identify team members who were not completing their tasks, and to critiquing well-established project policies. Of this difficulty countering what he terms project "doctrine," Foster notes:

Once a policy becomes doctrine, it is a rare staff member who can afford to question it. Bureaucratic environments are not conducive to the production of whistle-blowers.²⁸⁶

Foster also mentions the fact that bureaucrats, in this case project members, who feel that they are vulnerable will behave far more cautiously. One former evaluator of the project has attributed the project's lack of innovation or new personnel in recent years to vulnerable project members who have wanted to maintain their jobs in the project.

While Foster refers more to problems associated with large bilateral and multilateral international health agencies and national health ministries, as the PPT has become established over time it has assumed a more bureaucratic configuration and outlook. As such, it suffers from many of the bureaucratic characteristics that Foster identifies.

Another project member has criticized the fact that there has been very little turnover in the project members in recent years and increasing NGO competition. Even as of the

²⁸⁵Foster, 1987, op. cit., p. 1044.

²⁸⁶Foster, 1987, op. cit., p. 1044.

most recent project cycle, which began in November of 1993, the project has rehired two former members of the PPT who worked with the project in past years. This respondent also noted, particularly with the departure of SAI (Servicios de Apoyo Indígena) from within the PPT and the Misión de Amistad structure, that several non-governmental groups now compete to provide services to Pai communities. While this phenomenon has emerged only very recently and is thus difficult to assess, this competition poses a significant threat to existing PPT activities.

Social Science Research and Internal Project Evaluations

The Manual de Trabajo (1975) represented all the cultural, historical, health, agricultural, and other information the project collected during the first three years of its existence. No analysis of a similar scale, and in fact very little analysis at all, has been produced since that time. The project has not collected further information in the critical areas of anthropology and other social science information, and has not carried out a systematic evaluation of that nature since 1975.

The project's failure to develop a successful approach to Pai malnutrition and difficulties with agricultural production represents a clear example of how the project's inability to expand its socio-cultural knowledge-base has prevented it from identifying and addressing these problems. The Manual de Trabajo noted early on that one problem any nutrition program would have was:

The little degree of importance that the Pai Tavytera give to a more diversified nutrition, based on their amaterialist attitude.²⁸⁷

²⁸⁷Manual de Trabajo, op. cit., p. 12.

Since that time, many observers have noted that the Pai continue to lack a diversified diet. Even in cases in which the quantity of food is sufficient, the quality and diversity is still deficient.²⁸⁸

There is widespread recognition that agricultural production and Pai nutritional status continue to represent important problems that contribute to health problems, particularly TB. While there are several possible explanations for these difficulties, many project members have suggested that it has to do with Pai ideas about land, the distribution of resources, and the incorporation of new crops and domestic animals. One respondent has suggested that the project's initial conception of the *tekoha* was oversimplified. Although obtaining land titles for each *tekoha* in some ways represents a critical success, the project did not initially understand the complex kinship arrangements, nor the high levels of population mobility and *tekoha* fluidity. Further, community property and goods and services are often distributed by familial relationships, and the project has, according to others, not always understood these important factors. These examples suggest that at least part of the agricultural project's failure can be attributed to the fact that the project ceased collecting new socio-cultural or more in-depth information about the Pai as the project continued over time.

In addition, as the Pai agricultural situation has changed, the project has had even greater difficulty responding to these changes. Some have even gone as far as to suggest that because of the lack of project insight, certain negative processes have been exacerbated by the project. Bartomeu Melia describes the sale of timber from indigenous lands and suggests that it represents perhaps the most extreme (and environmentally-destructive) demonstration of land ownership by the Pai:

It seems as though there is a relationship between the colony (colonia) conceived of as property and the

²⁸⁸See Grünberg, Friedl, op. cit., p. 7, who observes a somewhat improved nutritional status, but a worsened diversity of food sources and new problems with dental care and dental health.

sale of timber. In a certain sense the creation of colonies (areas of land with titles) has accelerated the process. In this way, the recognition of land as an indigenous right, passed to the second term, so that the sense of "owners" would prevail. For some communities the test of their rights over the land has been done principally and almost exclusively by their right to sell timber, without restrictions and without any controls.²⁸⁹

If this is true, not only has the project failed to find solutions to old problems (e.g. the lack of a diversified diet), but with the establishment of communal land titles, it has created new problems.

Other former project members, particularly foreigners, cite the project's abandonment of an anthropological and social science approach as a critical problem. One former project anthropologist suggested that many Paraguayans do not value social science research as highly as other technical pursuits (medicine, engineering) and, as a result, they did not value or understand an anthropologist's contribution to the project.

In addition to the fact that the project stopped collecting cultural data, doing research, and incorporating a social science perspective, the project similarly abandoned the practice of internal evaluations. Friedl Grünberg, as cited above, has described:

regular reflections at the personal level and at the level of anthropological knowledge in order to avoid, where possible, unconscious transferences of values and structures.²⁹⁰

These individual and collective reflections resulted in the writing of the Manual de Trabajo, and an ongoing evaluation of project activities. Over time, however, these activities have diminished. Yet the failure to set specific goals and undertake systematic evaluations is not unique to the PPT. According to one researcher:

²⁸⁹Melia, Bartomeu, 1988, op. cit., p. 6.

²⁹⁰Grünberg, Friedl, op. cit., p. 16

Few projects have internal evaluation and monitoring systems. Data are collected in unsystematic ways, or not at all.²⁹¹

In addition, as described above, the project resisted the undertaking and the subsequent findings of the external evaluations that were performed.

One justification for not undertaking evaluations cited by various respondents was the fact that the project was caught up in the flurry of providing services. According to one anthropologist with the project:

We had the idea that to do a study, or research, was a waste of time. We were involved in concrete work, and everyone else was also. But all of the problems of the PPT started with this [attitude]. And when the necessary moment arrived to do an evaluation, there was more suspicion and fear. There was an attitude of "If we have good intentions (*de buena voluntad*), what else is necessary, what more do you want?"

The Changing Nature of Government Involvement

Over the course of the more than 20 years of the project's existence the role and perspective of the government Ministry of Health has changed significantly. At the project's inception, the project's complete independence from government services or control was understandable. There were few Ministry services available in rural areas and great institutional resistance to treating indigenous populations.²⁹²

Over time the PPT has come to have increasing involvement and interaction with the Ministry. The Ministry now provides vaccines and the medications for the treatment of tuberculosis which are distributed by Pai promoters. The Ministry has organized several training courses for Pai promoters and midwives in recent years, and promoters now regularly submit reports of their activities (vaccinations, TB treatments, other treatments, health talks) directly to the Ministry. Under Dr. Prieto (1989-1993), indigenous and

²⁹¹Engelkes, op. cit., p. 76.

²⁹²Personal interviews with Ministry officials, project workers, and Pai leaders and promoters.

landless peasant communities were given priority. She took steps to decentralized the Ministry of Health and foster greater community participation. Under the new Minister, however (1993 to the present), a recentralization and greater bureaucratization has been taking place.

Many of those currently or formerly involved in the project stress that the Ministry treatment of indigenous populations and its cooperation with private projects has improved, but these changes have not been institutionalized.²⁹³ Two former medical directors of the PPT now work as directors for the health regions in Amambay and Concepcion, the areas with the greatest concentration of Pai Tavytera. Their promotion of indigenous health issues has improved regional treatment of Pai. These improvements may not outlast these individuals, however, when they are no longer there.

Relations between the PPT and the Ministry of Health have changed a great deal over time and the state structure is now more willing and able to provide services to rural and indigenous populations. Likewise, Pai communities are now more capable of demanding and having access to those services. These changes, however laudable, have not yet been fully institutionalized. Because of this, the PPT and other organizations like it still play an important role as advocates for Pai rights and in providing services to Pai communities.

Sustainability and Dependency

A project that has functioned for over 20 years appears at first glance to have been remarkably "sustainable." However, most researchers define sustainability in terms of a given project's ability to continue to produce results once formal project funding has been terminated.²⁹⁴ While funding of the PPT continues, it has been greatly reduced from

²⁹³Personal interviews with PPT staff who are working or have worked for the Ministry of Health.

²⁹⁴Bossert, Thomas J., "Can They Get Along Without Us? Sustainability of Donor-Supported Health Projects in Central America and Africa." *Social Science and Medicine*. 30(9): 1015-1023, 1990, p. 1015.

previous years and may soon cease altogether. For a number of reasons, as the project currently exists it is unlikely that the project achievements will continue once project funding stops.

Bossert (1990) identifies several factors which contribute to project sustainability.

These include:

(1) demonstrable effectiveness in reaching clearly defined goals and objectives; (2) [an integration of] their activities fully into established administrative structures; (3) [the ability to] gain significant levels of funding from national sources (budgetary and cost-recovery) during the life of the project; (4) [the negotiation of the] project design with a mutually respectful process of give and take; and (5) [the inclusion of] a strong training component.²⁹⁵

Using these criteria as the definition for a sustainable project, a number of strengths and weaknesses of the PPT emerge.

One component Bossert stresses is the importance of perceived project effectiveness. An important criteria of success is often not how much a project has achieved, but whether there is a general perception by the community being served that the project has been successful. In this sense, the PPT had a reputation as an effective project for many years, although this is not as true about more recent project activities.

Bossert also identifies a the importance of a "respectful project process of give and take" in the design of the project. Again, as described early in this paper, the early PPT was characterized by a respectful methodology and an interactive means of establishing project goals and methods (letting the Pai themselves be the protagonists of the project).

The PPT has trained health promoters for nearly all Pai communities, and has undertaken a number of other training project over the years: of Pai midwives, for agricultural techniques, to improve literacy, and in other areas. Bossert also mentions training as an important contributor to project sustainability.

²⁹⁵Bossert, op. cit., p. 1015.

Bossert mentions several other factors for sustainability that relate to a given project's interaction with national structures and institutions. They include an integration into established administrative structures and significant project funding from national sources. In this area the PPT has had far less success. At the project's inception in 1972, it is easy to understand why the project had very little to do with the Ministry of Health. Over the years, the project has had increasing interaction with government structures but has never truly become part of the Ministry of Health bureaucracy or funding sources.

The Ministry of Health has changed significantly in recent years and now operates in a more responsive and less centralized manner. The project, and the Pai themselves, also now have years of experience interacting with government structures and demanding access to services that make them a more powerful force in the face of state inaction.

Bossert makes the critical point, however, that once international funding ceases, project sustainability does depend to an important degree on national willingness to support and fund a project. In this sense, the PPT would do well to improve its ties to state infrastructure. While there are reasons to be skeptical of state promises, future health activities among the Pai Tavytera will undoubtedly include greater state involvement.

Summary of Part IV

In this section I have explored a number of structural characteristics of the PPT that have weakened the project and made it less responsive to Pai needs over time. The project methodology and underlying ideology has changed over time from a belief in the absolute respect for Pai culture to the promotion of ideas about social transformation. The role of foreigners in the project, while critical to the project's early success, has hampered project success and sustainability over time. As the project has aged, it has acquired characteristics of a classic bureaucracy that have further prevented it from promoting project change and innovation. The project's abandonment of cultural research and social science techniques have prevented it from identifying new and emerging problems in Pai communities, as well

as resolving long-standing issues such as the problems with agricultural production. The Ministry of Health has become more responsive to Pai needs over time, but it is still not entirely capable of identifying and meeting Pai needs in a reliable manner. Finally, while some aspects of the PPT could be sustained if project funding were to be cut (promoter training, the respectful process and methodology used by the project), the failure of the project to work with state institutions jeopardizes the long-term possibilities of the project.

These numerous and somewhat disparate "structural" elements account for many of the project's most serious difficulties that have emerged over time. While some of them, such as project bureaucratization, may represent a process inherent to any long-term undertaking, these structural factors have prevented the project from fully satisfying existing Pai needs and, more critically, responding to and identifying new and emerging Pai needs and demands.

CONCLUSIONS

Many things can be learned by the close examination of one project and its modifications over time. One of my principle reasons for undertaking this research was the sense that so much has been learned in small, dispersed projects all over the world and yet so little of the knowledge these projects have accumulated has been collected or analyzed in a systematic way. But a project that is successful only under a set of specific historical and socio-cultural conditions will have little relevance to other projects or communities worldwide. Only if a project, such as the PPT, or its components, has some degree of sustainability and replicability will a close project examination have relevance for other times and places.

This study evaluates the history of one integrated rural development project in Paraguay among the Pai Tavytera, the Pai Tavytera Project (PPT). Part I discusses the history of the Pai and the project with particular emphasis on what Pai needs were at the time the project began, and what and how the initial goals and objectives were established. An examination of what the main achievements and difficulties of the project have been has also been included.

In subsequent sections, several hypotheses for project difficulties are explored. Part II discusses the introduction of Western medicine among the Pai and the project's attempts to incorporate traditional medicine into various programs. The examples of the success of childhood vaccinations and the failure to control tuberculosis are used to argue that structural issues in the project, and not the issue of traditional medicine or traditional medical beliefs per se, account for variable project outcomes.

Part III examines community participation in the project, and uses the example of Pai health promoters to explore the changing nature of Pai involvement in the project. This analysis suggests that again, as with the discussion of traditional medicine, structural changes within the project and not a lack of community participation, account for project weaknesses.

Finally, Part IV investigates several components of the project structure over time. These include a changing project ideology, the role of foreigners within the project, the bureaucratization of the project, the changing nature of social science research and project evaluations, the transformation of the state health sector, and project sustainability. An analysis of these aspects of the project's structure reveals that changes in numerous aspects of how the project functions and the project's structure and work methodology provide the best explanation for the project difficulties that have emerged.

During the course of my research, I encountered inconsistencies and information gaps in personal interviews, project evaluations, and other written documents. Some aspects of the project history and accomplishments have been difficult to sort out. While in some cases these discrepancies represent differences of opinion, or even ideological disagreement, in others they simply reflect the fact that project records and knowledge about the project are incomplete. I have attempted, in all cases, to fill in gaps in the information and provide explanations for clear discrepancies. Some degree of incompleteness and disagreement will always exist. I have tried, nevertheless, to minimize this where possible.

The Pai Tavytera Project has influenced and served as a model for a number of projects in Paraguay and the rest of Latin America over the years. In particular, the project was responsible for several important innovations: (1) a new conception of the importance of land rights and the creation of communal land titles, (2) an articulation of Pai rights and state responsibility for indigenous well-being at the national level, (3) a project methodology that strove to "accompany," rather than dictate to, Pai communities, and (4) the formation of pairs of health promoters in each Pai community. I have described numerous other project achievements, but the above represent the most important project innovations.

Overall, while the project has been in operation for over 20 years, few aspects of the project might survive if outside funding were eliminated. The formation of Pai health

promoters and their increasingly strong ties to the state health system represents perhaps the only example of a project activity that could be fully sustainable. Several other components of the project, as described above, could also prove sustainable in their application to other situations.

One of the strengths of the project was that it was designed to address and respond to specific Pai needs. In this sense, the specificity of the project could not, and indeed should not, be replicated elsewhere. However, several of the above components of the project could be replicated in Paraguay and elsewhere. The value of the PPT is less the specific goals and objects tailored to Pai needs, than the process and the approach that the project undertook.

In this sense, therefore, it is all the more noteworthy that some of the most important aspects of the project, its approach and methodology, are the very things that account for project difficulties over time. These structural components of the project that were so critical to early project success have proven difficult to "sustain" over time.

This close examination of project changes over time reveals many of the difficulties that arise even in a project that is initially judged to be well-designed and culturally appropriate. While many of the difficulties that have been identified are specific to Paraguay, to the Pai Tavytera, and to the PPT, it is my hope that this analysis has some relevance for other projects and situations. The challenging issues involving traditional medicine, community participation, village health workers, and project structure and methodology arise in many integrated rural development projects, and indeed many health projects the world over. A more critical analysis of the impact and interaction of these factors may reveal new relationships and connections that, with a deeper understanding, will contribute to a better- designed, and stronger project. Ultimately, better designed health and development projects may contribute to improved rural health conditions and standards of living.

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APPENDIX A. LIST OF FORMAL INTERVIEWS (1993-1994)

- Luis Arce
-Mburuvicha, Itaguasu
- Leoncio Barrios
-Pai Health Promoter, Itapoegua
- Emilio Caballero
-SAI (Servicios de Apoyo Indígena)
-PPT (1974-1977), Proyecto Guaraní
- Abel Duarte
-Pai Health Promoter, Ybycui (Yvytirimi)
- Dr. Luis Carlos Estigarribia Avalos
-Ministry of Health, Director of Indigenous Health
- Vicky Fernandez
-Administrator, Mision de Amistad
- Benno Glausser
-International Development Consultant
- Gregorio Gomez
-Ñemongetarã (Programa de Educación y Comunicación Popular)
-PPT (1978-1983, 1986)
- Beate Lehner
-Servicios Profesionales Socio-Antropológicos y Jurídicos
-PPT (1975-1981)
- Alejandrina Marecos
-PPT (1978-1993)
- Luis Marecos
-SAI (Servicio de Apoyo Indígena)
-PPT (1978-1993)
- Apolinaria Martinez
-Pai Health Promoter, Itapoegua
- Dr. Hugo Medina Huerta
-Regional Medical Director, Concepción
-PPT (1978-1982)
- Dr. Luis Medina Huerta
-Regional Medical Director, Amambay
- Bartomeu Melia
-CEPAG (Centro de Estudios Paraguayos Antonio Guasch)
-PPT (1972-1976)

LIST OF FORMAL INTERVIEWS (continued)

- Irto Mendoza
-Pai Tavytera, Jakaira
- Arcilia Nuñez
-Pai Health Promoter, Pariri
- Cristóbal Ortiz
-INDI (Paraguayan Indigenous Institute), Land Division
-PPT (1972-1976), Proyecto Guaraní
- Mercedes Oviedo
-Nurse, Ministry of Health (Amambay) (1988-1993)
-PPT (1978-1988, 1993-present)
- Esther Prieto
-CEDHU (Centro de Estudios Humanitarios)
-PPT (1974-1977)
- Juan Carlos Ramirez
-Pai Health Promoter, Pariri
- Marcelino Ramirez
-Mburuvicha, Cerro Akangue
- Ramon Recalde
-Mburuvicha, Tavytera
- Dr. Donald Urquhart
-INDI (Paraguayan Indigenous Institute), Director of Indigenous Health,
Clinica Santa Teresa
- Maria Valenzuela
-Pai Health Promoter, Tavytera
- Eduarda Vasquez
-INDI (Paraguayan Indigenous Institute), Nurse at Clinica Santa Terera
- Oleg Vysokolan
-PPT (1974-1976, 1993-present)

APPENDIX B. LIST OF INFORMAL INTERVIEWS (1990-1991)

Dr. Roberto Aquino
Sobrevivencia (NGO)

Maria Roque Cañiza López
Ministry of Health, Department of Social Welfare

Miguel Chase-Sardi
Anthropologist, founder of Proyecto Marandu

Dr. Agustín Colmán
INDI (Paraguayan Indigenous Institute), Military Hospital

Dr. Angela Espínola
Equipo Nacional de Pastoral Social (Catholic Church)

Dr. César Filippini
Catholic Relief Services (NGO)

Oscar Rivas
Sobrevivencia (NGO)

Dr. Cecilia Rivas Quevedo
Doctor, INDI (Clinica Santa Teresa)

Dra. Raquel Rodriguez
Equipo Nacional de Pastoral Social (Catholic Church)

Dr. Sinfiorano Rodríguez-Doldán
Doctor, Medical Director of Proyecto Marandu (NGO)

Balbino Vargas Zárate
Servicios Profesionales Socio-Antropológicos y Jurídicos (NGO)

**APPENDIX C: INTERVIEW SCHEDULE FOR GOVERNMENT AND
NGO (NON-GOVERNMENT ORGANIZATION) WORKERS**

1. What are the most important health problems in indigenous communities?
2. What activities is the government involved in?
3. What is the role of NGOs in the area of indigenous health? What do you think it should be?
4. What does an indigenous person do first when he or she gets sick in the community?
5. What is the role of traditional medicine in indigenous communities?
6. What would a complete indigenous health project consist of?
7. What do you know of other NGO projects? (Follow with more specific project questions about objectives, etc.)
 - What were the original goals and objectives of the project (PPT) and how were these determined?
 - Overall, what do you think have been the most important achievements and difficulties of the project?
 - What do you think has been the foreign role in the project, both in terms of personnel and financing?
 - How was the project and the methodology determined and evaluated?

INTERVIEW SCHEDULE FOR PPT (PAI TAVYTERA PROJECT) PERSONNEL

1. How were you involved in the PPT, when, and in what capacity?
2. What were the most important health problems when the project started? What are they now?
3. What were the original goals and objectives of the project and how were these determined?
4. Overall, what do you think have been the most important achievements and difficulties of the project?
5. What do you think has been the foreign role in the project, both in terms of personnel and financing?
6. How was the project and the methodology determined and evaluated?
7. When a Pai gets sick in the community, what does he or she do first? What role does Pai medicine play?
8. What would a complete project among the Pai consist of?

**INTERVIEW SCHEDULE FOR PAI LEADERS, HEALTH PROMOTERS,
AND COMMUNITY MEMBERS**

1. What are the most important health problems in your community now?
2. What were the most important health problems when the project began?
3. How many promotores are there in your community? How many years have they been working? Has it always been the same pair?
4. What kind of work do the promotores do? (for promotores) Can you describe a typical day for me? Why was it decided to form promotores?
5. What were the original goals and objectives of the project and how were these determined?
6. Overall, what do you think have been the most important achievements and difficulties of the project?
7. When a Pai gets sick in the community, what does he or she do first? What role does Pai medicine play?
8. What would a complete project among the Pai consist of?