Measles in children is dangerous but normal: lay perceptions and practices related to measles among residents Parola, an urban poor community in Tondo, Manila

A thesis presented to the Faculty of Social and Behavioural Sciences in partial fulfilment of the requirements for the course in Master of arts in medical anthropology by:

Maricel B. Lim-Nalian on 26 August 1999

Pieter Streefland, PhD Thesis supervisor
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MARICEL B. LIM-NALIAN
EXECUTIVE SUMMARY

Measles is one of the immunisable diseases covered in the Expanded Program of Immunisation and although immunisation coverage in the Philippines is high measles remain a public health concern because it continues to kill about 3000 children every year. Studies have shown that although the measles vaccine itself has limitations in controlling the disease due to its relatively high failure rate (15%) the people’s perceptions and practices about measles may have also contributed to the continued emergence of this problem.

A study among residents in Parola, an urban poor community in Tondo, Manila, was conducted mainly to describe the people’s perceptions and practices related to measles. It also aims to find implications in controlling measles, particularly in the delivery of immunisation services.

Data on the study was gathered through in-depth interviews, focus group discussions, interviews with key informants, review of health records and statistics, and through observation, both of community and family life and of health service delivery at the local health post especially the provision of immunisation services.

The research findings have shown that the people in this community regard measles as a dangerous but normal disease for children. They are also found to be knowledgeable about the signs and symptoms of measles. The women participants, in particular, were found to be aware of the possible complications of measles and they know that complications can be fatal for children.

The participants in the study any particular cause for measles except that it can be carried by the wind/air, and that it occurs at certain time. Bodily characteristics such as nutritional status, or environmental factors such as crowding are not considered as factors affecting measles infection although research participants think that pollution could play a role in measles. The research also found that people do not consider measles to be a preventable disease. They know that immunisation for measles is given in the health centre but they think that these injection is part of the cure for measles rather than a prophylactic.

The research also found that people in this community have several techniques for the treatment of measles. A central theme in the treatment of measles is for the rash to fully come out otherwise the disease will worsen and the child may die. It is also found that women combine self-treatment/home-remedies, western-style medical care and traditional healing in the treatment of measles.

Most of what people learned about measles is obtained from their mothers and female relatives. Health information through IEC materials from the health centre also appear to be important sources of information on measles.

One implication of the study is that there is a gap between the way lay people perceive the preventive potential of measles against what biomedicine and public health officials believe. It is also found that people accept medical technologies because they have trust in the western or modern medicine even if they have little understanding of what the technology does in their bodies. This results in the apparent contradiction in the people’s perception that measles cannot be prevented and their acceptance of immunisation. There is therefore a need to continue raising people’s awareness about measles and measles immunisation in particular. They may also need to be informed that measles can be properly controlled through immunisation in order to stimulate their more active support to the measles eradication campaign of the government.
List of abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ARI</td>
<td>acute respiratory infection</td>
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<tr>
<td>BHW</td>
<td>barangay health workers</td>
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<td>CFR</td>
<td>case fatality rate</td>
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<td>COP</td>
<td>Community Outreach Program</td>
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<td>DOH</td>
<td>Department of Health</td>
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<td>EPI</td>
<td>Expanded Program on Immunization</td>
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<td>FETP</td>
<td>Field Epidemiology Training Program</td>
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<td>FGD</td>
<td>Focus group discussions</td>
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<td>FIC</td>
<td>fully immunised child</td>
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<td>HIS</td>
<td>Health Intelligence Service</td>
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<td>LGU</td>
<td>Local government unit</td>
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<td>MCHS</td>
<td>Maternal and Child Health Services</td>
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<td>NCR</td>
<td>National Capital Region</td>
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<td>NESSS</td>
<td>National Epidemic Sentinel Surveillance System</td>
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<td>NID</td>
<td>National immunisation days</td>
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<td>PMEC</td>
<td>Philippine measles elimination campaign</td>
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<td>SSIP</td>
<td>Social science and immunisation project</td>
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<tr>
<td>USD</td>
<td>US dollar</td>
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<tr>
<td>Term</td>
<td>Translation/Description</td>
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<tr>
<td>arbuharyo</td>
<td>traditional healer</td>
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<tr>
<td>bantay-bayan</td>
<td>a local community group which is organised to help in keeping peace and order in the community</td>
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<tr>
<td>barangay</td>
<td>the smallest political unit in the Philippines, may also mean community or village</td>
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<tr>
<td>chichiria</td>
<td>junk food such as chips and candies</td>
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<tr>
<td>filot</td>
<td>bone-setter, the term is also used to refer to traditional birth attendants</td>
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<tr>
<td>layang</td>
<td>the notion of being fit or compatible</td>
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<td>init sa katawan</td>
<td>body heat</td>
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<tr>
<td>jeepneys</td>
<td>shared taxi ride, this is the country's main mode of public transportation</td>
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<tr>
<td>kolantro</td>
<td>coriander (Corindrum savitum)</td>
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<tr>
<td>komplikasyon</td>
<td>complications</td>
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<tr>
<td>kombulsion</td>
<td>convulsions</td>
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<tr>
<td>mahina ang baha o pulmon</td>
<td>weak lungs</td>
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<tr>
<td>mongo</td>
<td>mung beans (Phaseolus radiatus)</td>
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<tr>
<td>natubigan</td>
<td>sinking</td>
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<tr>
<td>pana-panahon</td>
<td>depends on the season or weather</td>
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<tr>
<td>pangontra</td>
<td>counter-acting effect</td>
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<tr>
<td>parola</td>
<td>lighthouse</td>
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<tr>
<td>pedicabs</td>
<td>pedalled tricycles</td>
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<tr>
<td>pilay</td>
<td>the term literally means sprain; women reported that common symptoms of pilay include fever and feeling of cold in lower extremeties, especially in the soles. Fevers that occur during the day and disappear at night is indicative of pilay</td>
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<tr>
<td>sari-sari store</td>
<td>a small community store that sells general merchandise for day today household use</td>
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<tr>
<td>sinat</td>
<td>mild fever with cough, colds, and possibly malaise</td>
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singkamas  yam (Pachyrhizus erosus)

towas-towas  an oracular ritual that is used mainly to identify the affliction of a child. It is performed by pouring melted candle on water and by studying the shape formed in the water

tigdas  the Tagalog term for measles, also refers to the rashes that typically appear in measles
	
tigdas  the term used by Visayan-speaking people for measles, also used to refer to the rashes in measles
	
tigdas hangin  wind measles, said to be a mild form of measles, also considered to be not a real measles
	
tigdas pula  red measles, a type of real measles
	
tigdas itim  black measles, a type of real measles
	
tigdas totoo  real measles

tusug  a term used to refer to a condition which is characterised by symptoms such as fretfulness and crying, flatulence, vomiting and sometimes also slight fever, it is said to be caused by a person’s negative force.
	
tuso-uso  trend, or in season
CHAPTER ONE
THE PROBLEM

Introduction

Measles is considered as the most lethal among the six immunisable childhood diseases responsible for about one million deaths among pre-school children world-wide (HAIN 1997: 2; WHO-WER 1998: 390). Its contagiousness makes its control more challenging, especially because the vaccine for measles is only about 85% effective in most developing countries (WHO-WER 1998; WHO-EPI 1996). It was estimated that over one million deaths occurred in about 36.5 million cases of measles world-wide in 1996. More than half of those who died is from Sub-Saharan Africa where only 2 out of 42 countries have achieved 90% coverage of fully immunised children (Strebel 1998:154: Henderson 1998:3). Control of measles is considered to be more difficult due to "cultural barriers", particularly the belief among lay people that measles is a less serious malady (CDC-MMWR 1997: 2).

In the Philippines it appears that measles remains a public health concern despite the progress made in vaccination. The coverage for immunisation in the country is reportedly high; in fact, it already reached 90% levels in the early 1990s, according to the health service statistics of the Department of Health (DOH) (Ramos-Jimenez et al. 1998). However, certain events, such as the devolution of health service to local government units, the tetanus toxoid controversy1, and possibly the mass vaccination campaigns (national immunisation days or NIDsc) have caused strain on the program which resulted in the slight decrease in immunisation performance from a rate of 91% fully immunised children (FIC) in 1993) to 88% and 86% in 1994 and 1995 respectively (GOP-UNICEF 1997: 4).

Despite this positive performance of the Expanded Program on Immunization (EPI) in the Philippines about six million children are estimated to remain susceptible to measles, and the disease is said to cause about 3000 deaths per year (HAIN 1998b:2; GOP-UNICEF 1997:4). Measles is said to be the third leading cause of deaths among children below five years of age in the early 1990s (Zimicki et al. 1994). Aggregated national health statistics showed that about thirty-five thousand children reportedly got ill with measles in 1995 (HIS-DOH 1995). In 1997,
an epidemic of measles occurred with 8,700 cases reportedly admitted in the hospitals. It was also said that the number of hospital admissions in Metro Manila doubled compared to the measles incidence rate of the previous year (HAIN 1998a: 2). The officials of the DOH claim that the upsurge in measles cases in 1997 follows the trend of cyclical peaks in measles cases as described in several studies (HAIN 1997b: 1). The outbreak happened about two years since the tetanus toxoid controversy broke out and also about two years after the DOH used only polio antigens in the NIDs. The sudden surge of measles cases apparently prompted public health officials to assess the effect of NIDs, and measles immunisation coverage data during the multi-antigen NIDs showed that the campaign reached only 48% of the previously unvaccinated children, leaving still a large number of unvaccinated, susceptible children (CDC-MMWR 1997:4).

Understanding the people's perceptions about measles is considered relevant in developing strategies for improving immunisation coverage for measles, as well as in enhancing attitudes and practices that help control this disease. This study will attempt to explore the people's perceptions and practices about measles and try to find possible implications to measles control.

**Statement of the problem**

This section will present the problems to be addressed in the research, the key themes and aims of the study, as well as provide and discuss relevant issues gathered from the review of related literature.

A) The Philippine EPI and measles situation

The Philippines instituted its EPI in 1976 by virtue of Presidential Decree Number 996 signed by then President Ferdinand Marcos. The tuberculosis vaccine (called BCG) was the first antigen to be administered on a massive scale, and the vaccines for other diseases including poliomyelitis, diphtheria, tetanus, pertussis, measles, hepatitis B and tetanus toxoid immunisation for women of reproductive age were gradually incorporated into the programme. Measles vaccine was introduced in 1982 and was administered to children between 9-12 months (DOH Immunization Manual 1995; Costales and Rosell-Ubal 1993; Ramos-Jimenez et al. 1998). The EPI
performance until the mid-80s was low but after the implementation of the EPI acceleration plan steady progress were made in this area. In 1989, the EPI reached the milestone of fully immunising 80% of the eligible children, and in 1993 the DOH reached its highest coverage rate so far of 91% FIC performance (GOP-UNICEF 1997; Costales and Rosell-Ubial 1993). The EPI is a vertical program, thus its policies and management remains the responsibility of the central DOH. However, in 1993, the Philippines instituted its decentralisation policy and operation of health programs became the responsibility of local government unit (LGU) although the DOH still plays a role in policy-making as well as in providing technical and material support (DOH 1993). This apparently has resulted in various problems both operational/logistical as well as organisational, that have adversely affected the delivery of immunisation services in the communities (Ramos-Jimenez et al. 1998: 370-371).

As previously mentioned, measles remains a public health concern for the country. Owing to the fact that the measles vaccine is only 85% effective and because of high contageousness of measles it is important that a very high coverage of measles immunisation is maintained to successfully interrupt its transmission (Rosenthal and Clemens 1993; de Quadros 1996). The perception that measles is a less serious malady have been thought of as possible reason for non-acceptance of measles vaccination by some women (CDC-MMWR 1997; Henderson 1998). This will be the focus of the next section.

b. Perceptions on measles: its possible determinants and effect on measles control

The need for understanding how people, especially the mothers, perceive measles and what they do to prevent measles and the impact that these have on acceptance of measles immunisation is considered important, especially in developing culture-sensitive approaches and strategies in health education and other similar campaigns.

Biomedicine have characterised measles as having high fever followed by the development of maculo-papular rash, which usually starts in the trunk and spreads throughout the body. Other accompanying symptoms include cough, coryza (runny nose) and conjunctivitis (pink eyes) (DOH-MCHS 1998). Biomedical experts also identified the risk factors associated with measles transmission, such as over-crowding, low immunisation coverage, poor environmental sanitation and personal hygiene, as well as malnutrition (Strebel 1998:154; CDC 1996). These are common
occurrences in many Third World countries especially in urban slums (Henderson 1998). It would be interesting to see how the people themselves consider these biomedically-defined risk factors as contributing to the measles problem in their community or in their respective families. Furthermore, knowledge about what the people think as other factors leading to measles infection would contribute much in understanding what the people’s ideas and practices are with regard to measles prevention and treatment.

The interaction between measles and malnutrition appears to be well-documented (Strebel 1998:154; Henderson 1998:3). Malnutrition can cause children to be more susceptible to measles infection, while measles can exacerbate malnutrition and can possible lead to death a few years after exposure to the virus (Henderson 1998:3). However, Aaby and his colleagues (1996: 530) documented that delayed mortality after measles exposure cannot be explained by poor nutritional status alone, nor by inadequate attention given by the mothers/care-takers. They suggested that biological factors such as intensity and dose of exposure may play a role in the severity of measles (Aaby et al. 1996; Aaby 1995). Nonetheless, it may be possible that the people themselves make association between measles and nutritional status. They may have their own notions about certain characteristic in children that make them more prone against measles. Similarly, they may also have ideas about physical or innate conditions of children that make them resist measles infection. These notions will also be explored in this study.

Some studies on lay perceptions about measles have shown that some cultures consider this a serious malady, such as the Indian women which was reported by Nichter (1995). While this may be true, there are also stories about how some mothers would bring their uninfected child to a neighbour whose child/children is suffering from measles in order to induce the infection on their child because it is natural and normal for children to have measles (personal interview with Sr. Pilar Versoza 1996). In fact, some said that having measles is part of the children’s developmental milestones. Also, while this practice of inducing infection in children has not been very well documented it is highly possible that certain groups particularly in developing countries such as the Philippines are actually doing this. It is just not clear whether women would prefer their very young children to get the disease, although Nichter” (1995:624) reported that women in India prefer their children to have kora (measles) when they are young because it is considered to be more severe when contracted in older age. Yet, measles is known to be more fatal for young children (CDC-MMWR 1997; Rosenthal and Clements 1993). In this regard, it
would be interesting to see whether people's views about the severity of measles vary depending on specific conditions of children.

Ideas about the causation of measles may affect how lay people would perceive the potential of preventing this disease through vaccination. For instance, the people in Malawi consider measles as caused by the sexual activities of the parents (Chilowa and Munthali, 1998), thus it can be prevented by the parents' observance of sexual taboos until the child gets older. Ideas such as prevention of measles through immunisations may not be readily appreciated in such settings. The personalistic notions about disease causation seem to relate to their strategies towards prevention of measles. In Mali, for example, it was documented that measles is caused by supernatural forces, and measles can be prevented by performing certain rituals and using devices that would protect their children from being affected by such forces (Imperato and Traore 1979: 19-21). However, some studies seem to show that vaccinations are acceptable in "traditional" societies even if the people do not have notions about the germ-theory because they may re-interpret immunisation (and other technical fixes, for that matter) to fit into their own world-view, e.g., immunisation as a form of amulet among the Bambara in Mali (Imperato and Traore 1979).

Nichter's (1995) studies about vaccinations as well as that of Ramos-Jimenez and her colleagues (1998) show a trend in the way lay people perceive immunisable diseases and immunisation. Nichter mentioned that women perceive immunisation to improve the general well-being of their children and not as providing immunity against specific diseases. In the social science and immunisation (SSIP) study conducted by Ramos-Jimenez and others, 2068 women from different parts of the Philippines were asked about their opinions about immunisation and immunisable diseases. About half of these women mentioned that immunisation protects against specific diseases while close to four out of 10 mention that it protects against diseases in general. Furthermore, the study also showed that women attribute measles to the season, and that one could not actually protect a child from acquiring measles, because it comes and infects whether one likes it or not, "kusa lang na dumadating" (Ramos-Jimenez et al. 1998: 246-248, 256-267)

In general, it was observed that the coverage of measles vaccination is lower compared to the coverage of other vaccines (Wright 1995: 610). This may have to do with the women's perception of the need for measles vaccination in their children. In the Philippines study, for example, it
was observed that women regard measles as among the diseases which can be prevented by immunisation, but they ranked immunisation second only to breast feeding as the strategy for measles prevention (Ramos-Jimenez et al. 1998:263). It also appears that they consider proper nutrition as a more superior means of preventing disease compared to immunisation. This may be compounded by what Nichter (1995) described as women’s subjective reckoning on whether their children need more vaccinations - that they are concerned more about the number of vaccinations given rather than on which disease such vaccination protects. One key informant in the Philippine SSIP said that some mothers would not consider their children to need measles vaccination especially when the child is almost a year old, appears healthy enough and does not seem to be sickly (personal interview with assistant regional health officer, December 1997), and this contributed to low immunisation coverage for measles compared to other antigens. Women might also lose their confidence in measles vaccination especially if they know of a child who was vaccinated with measles but still developed the illness (vaccine failure*). On the other hand, Aaby (1995) said that some women would actually welcome measles infection even if their children were already vaccinated against it, and that women actually thought that having a less serious infection of measles after being vaccinated is a mark of the vaccine’s effectiveness. The effect of such experiences as children getting measles even after being vaccinated on the people’s perceptions about vaccine effectiveness as well as on their trust on the technology need to be assessed. These may have implications on the public health strategies for disease prevention through vaccinations.

One of the factors attributed to the persistence of measles as a health problem lies in vaccination technology because it is only 85% effective when given to children below 12 months, which is the case in the Philippines. Overtime, the number of susceptible children (unvaccinated + vaccine failures) accumulate which results to periodic outbreaks of epidemics (de Quadros et al. 1997; Rosenthal and Clements 1993). There were reports that the occurrence of measles epidemics may cause some people to lose confidence in the vaccine (Chen et al. 1994). Other studies have shown that the occurrence of measles epidemics actually increase the uptake of measles vaccination immediately at the time of the epidemic, but not on-time vaccination for all antigens (Goldstein et al. 1994). The possible effect of epidemics on perceptions about efficacy of measles vaccination also warrants investigation.

With regard to education and immunisation, Nichter (1995) pointed out that massive immunisation campaign and even high educational attainment among women does not seem to
bear influence on sustaining high demand for immunisation. In the Philippines, a massive communication campaign through radio and TV advertisements was conducted in 1990 and this was aimed at improving immunisation coverage especially for measles. Evaluators of the communication programme claimed moderate success in achieving increases in the coverage as well as on the mothers’/caretaker’s knowledge about measles (Zimicki et al. 1994). However, as was mentioned in the previous sections, coverage for measles vaccination declined in the recent years, and the apparent increase in knowledge about measles observed in the early 1990s was not enough to stop women from being discouraged in taking their children for measles vaccination after the TT controversy broke out. Also, it would be possible that the increase in the level of awareness about measles occurred immediately after the campaign, but this had declined after the stimulus (the communication campaign) was removed. Popular notions about measles which are socially produced and transmitted may have taken over the ideas that women learned from the radio/TV advertisements. For this reason, it is also important to investigate how lay people learned about measles, what kind of information they have and where these information was obtained.

The lay people’s ideas about the aetiology of measles and the supposed normal course of the infection would also affect the care-seeking for the sick child. For instance, Wright (1995) mentioned that women in India delay the health seeking for their children until the rashes have subsided. It was implied that delaying care for a very sick child has the potential of producing fatal outcomes especially if the child develops complications. Nichter (1995) found that Indian women ascribe measles to be due to too much heat in the body and the rashes are seen as the points of exit for the excess heat, thus they make sure that rashes would come out abundantly on the child’s body to make sure that all the heat has been removed. In the Philippines, I have encountered women, in my own family as well as those in the community, who would apply traditional concoctions as well as perform certain rituals to ensure that rashes would come out. It is believed that measles will become more severe if rashes do not develop saying that the illness has literally “sunk”. It is probably because of this belief about heat that lay people attribute complications secondary to measles to the illness having sunk in the body, impeding its normal course. It is also possible that these notions of allowing measles to go through its normal course is one contributing factor to non-acceptance of vaccinations for measles because vaccination would be seen as an interference to the normal course of the disease. These notions of nature taking its course is also becoming popular in the industrialised countries particularly in those
who are followers of "alternative" lifestyles, e.g., those who believe in homeopathy, in holism and other related philosophies (Rogers and Pilgrim 1995:82-84).

In another case, Dilraj (1995:190) described a practice among Indian people where they would isolate the child who is experiencing measles. He mentioned that this practice is in fact helpful in controlling measles because isolating the child (a form of quarantine) helps in limiting the rapid transmission of the virus. He also mentioned that Indian people give certain herbal medicines (turmeric powder and syringa leaves) to the child suffering from measles. These herbal medicines have antibiotic properties, which may help protect the child from bacterial infections.

Past studies on diarrheal diseases and acute respiratory infections (ARI) in children suggest the importance of understanding the complex decision-making processes involved when a child is ill. For instance, Nichter (1996:151) cited that in certain societies the parents-in-laws have the final say in whether to seek care for the child or not. In addition to this, Nichter found that past experiences with potentially fatal childhood disease would affect either positively or negatively on the parents' health seeking behaviour. Some parents decided to seek prompter care after experiencing serious illness in their children; conversely, other parents took a more fatalistic attitude saying that the medicines only prolonged the life but did not save the child from dying.

In the Philippine setting, it may be important to see what role the fathers of the children, as well as the grandparents, play in the decision-making process for seeking care. The impact that previous experiences with child morbidity and possible child loss have on perceptions about measles and consequent health actions will also be of interest in this study. However, it is possible that not all families would have experienced measles in the past but they may have known friends/neighbors and close relatives who experienced this disease before. The effect that such shared experiences have on the individual's perception about the disease will then be explored.

Child caretakers, particularly the mothers, may get information and advice about various health concerns from their previous contacts with health care providers. In particular, women may get information about childhood disease especially when having their babies vaccinated. This information may have an effect on women's perceptions about measles. Furthermore, their satisfaction with the kind of services provided by the health care giver may also affect their
future contact with such provider. In the SSIP in the Philippines, for example, it was shown that
the women were highly satisfied with the health services provided in the health centres and they
expressed their willingness to return to the facility for other services, especially for immunisation
(Ramos-Jimenez et al. 1998: 321-331). The possible dynamic that past health care utilisation
have on perceptions about measles and on future health actions will also be explored in this
study.

Health social science studies on diarrhoeal diseases and ARI have produced various ways of
finding the emic perspectives of the disease. Local illness terms and categories were found
useful especially in instituting health education messages although Nichter (1994) also
mentioned that utility of such knowledge is limited due to inadequate specificity and sensitivity
of local terms. Nonetheless, such studies provided valuable insights on possible research
techniques that can be used in eliciting local illness categories and terms, such as pile sorting,
attribute listing, use of hypothetical cases or vignettes, etc. (Nichter 1994; Mull and Mull 1994).
These approaches may also be used in examining the emic perspectives on measles particularly
in finding out how people label a condition as measles, or “tigdas” in Tagalog.

c. Description of the aims and intentions of the study

The previous sections have shown that indeed measles is still a cause for concern especially in
areas where the risk factors associated for measles remain rampant. The response to this
problem, however, was mainly on technological development and in instituting policies and
strategies that would best suit measles control in a broader manner. But getting insights into the
socio-cultural aspects such as beliefs and practices related to measles may provide clues as to
how the technology and policy on measles control can be made more culture-sensitive and
effective. While the current review seem to point out that culture appears to be a constraining
aspect in measles control, a more thorough study of this area may provide an understanding on
how such practices can be adoptive and provide the lay people with effective means of
controlling the spread of the disease. Furthermore, getting information and understanding the
reasons for such beliefs and practices allow health policy planner and managers, especially those
involved in health education, to create appropriate health messages that would encourage
women/caretakers to adopt more effective prevention measures against measles.
The recently concluded study on the social and cultural dimension of immunisation practices in the Philippines (also known as SSIP) by Ramos-Jimenez and colleagues (1998) offered valuable insights on how women with pre-school children in the country, as well as health providers and government officials perceive immunisation in general. However, the study has not been able to explicate specific details on how women actually perceive the immunisable diseases, e.g. measles, nor on what they actually do to prevent such diseases and why. It is this lack of insight on the perceptions that women have about the measles, on how they prevent and treat the disease and why women believe and behave as they do, that this current study is interested to find out.

This study will be conducted among residents in an urban poor community in Tondo, Manila. Tondo forms a big part of the Manila and is known to have a big number of urban poor residents. In 1995, the National Capital Region (also known as Metro Manila), where the City of Manila is located, has a population of 15 million, of which 20% are urban poor (DOH-UHNP 1995). Metro Manila is the seat of the central government and is also the main hub of trade, commerce, industry and communication.

The research objectives
In view of the foregoing, this study thus aims to achieve the following objectives:

General objectives
To describe the perceptions and practices about measles particularly on the nature of the disease, its aetiology, signs and symptoms, perceived seriousness and contagiousness as well as its prevention and treatment among the residents in the urban poor community in Tondo, Manila. It also tried to find its implications in the public health strategy for measles control.

Specific objectives:
The following are the specific objectives of the study:

a) To discuss how different groups of people label in their local terms a condition that is characterised as measles.
h) To describe the people's previous health seeking and prevention behaviour related to the health of pre-school children (e.g., perceived quality of care, reason for choosing the provider, perceived efficacy, etc.), and to find links of this previous behaviours to their perceptions on prevention and treatment of measles.

c) To summarise the people's perceptions about measles in the following areas:
   - Signs and symptoms and expected course of measles infection,
   - cause of the disease, contagiousness and vulnerability to measles
   - vulnerability to measles
   - seriousness of measles vis-à-vis other childhood diseases
   - prevention potential of measles

d) To describe how people prevent their children from getting measles.

e) To enumerate the measures taken to treat measles in case of its occurrence.

f) To discuss the people's experiences with measles and relate these to their current perceptions and practices related to prevention and treatment of measles.

g) To enumerate the different sources of information about measles, the type of information obtained and their social relationship to the source.

h) To describe the community and the measles situation in the place, and try to find possible factors in the broader socio-cultural context on the people's perceptions and practices about measles.

i) To identify implications that lay perceptions on measles have in the public health strategies for measles control, i.e., immunisation and health education.
Notes:

1 In 1995, a group of religious leaders led by Sr Pilar Verzosa of the Pro-Life movement claimed that the tetanus toxoid used by the Department of Health in EPI were laced with beta human chorionic gonadotropin (ß-HCG), allegedly an abortifacient. This claim led to an injunction by a local court asking the DOH to temporarily suspend giving TT to women of reproductive age. The controversy resulted to a drastic decline in the coverage for TT immunisation during the second round of the NID that year, as well as a low turn-out of children for measles immunisation (Ramos-Jimenez et al. 1998).

2 The national immunisation days or NIDs are special immunisation days conducted primarily for the eradication of polio in the country. It was first conducted in February 1993, the last NID was conducted last year. Personnel and volunteers are mobilised to vaccinate all children and more logistics are poured in areas that are difficult to reach such as those in mountainous regions and in the islands.

3 The Department of Health used the multiple antigen approach in the National Immunization Days (NIDs) in 1993 to 1995. This means that, aside from providing OPVs because the NIDs were aimed at eradicating polio, the DOH also administered injectable vaccines such as DPT and measles for eligible children as well as tetanus toxoid for women of reproductive age. This policy was changed in 1996 when the DOH focused its NID only to polio eradication, thus giving only OPVs to eligible children.

4 Vaccine failures refer to children who failed to develop antibodies specific for measles after having been vaccinated. Scientific findings show that presence of maternal antibodies, which is transferred to the child in uterus as well as through breast milk, interferes with the production of antibodies.
CHAPTER TWO
RESEARCH METHODS

This chapter provides a description of the data-gathering tools and instruments used in the study. It also describes how the data was processed and analysed.

Study type
This is an exploratory study, which mainly attempted to describe the lay perceptions about measles and find its implications for public health measures in controlling measles. Perceptions from three groups were compared, women with recent experiences of measles among their young children, women who has no previous encounter with measles, and men.

Study design
This exploratory study utilised various qualitative data collection techniques and approaches in studying the following variables.

Variables
The variables that were examined in the study are as follows:

- perceptions about measles in terms of: aetiology and risk factors, signs and symptoms, severity, contagiousness, prevention and treatment
- practices for measles prevention
- practices for the treatment of measles
- previous care seeking and disease prevention behaviour for pre-school children
- perception in the quality of health services provided for pre-school children
- sources of information or knowledge about measles
- socio-demographic characteristics of informants in terms of: age, marital status, education, occupation, income (family and own), number of children (total and living), religion, migration status and ethno-linguistic origin.

Choosing the study site
Before a study site was chosen, I first obtained permission from the office of the city mayor of Manila to conduct the study in Tondo. The staff in the city mayor's office then referred me to the
health department of the city, where I was then referred to the city health planning office for the initial actions of my research, that is, the selection of the study site. The officers in the health department suggested that I conduct the study in Parola, an urban poor community along the coasts of North Harbor in Tondo. Apparently this area was among the places in Manila that had high measles this year. Because I found Parola to be a rather big community, I decided to just choose an area (or cluster) which registered the most number of measles cases in the health centre. This turned out to be area B, which accounted for about 40% of the cases in Parola. Bo. Fugoso health centre is the local public health post that is assigned to cover the whole community of Parola and another neighbouring slum community called Dulong Puting Bato, located along the breakwater of North Harbor.

**Data collection techniques used**

The study utilised six approaches in gathering information on the people's perceptions and practices related to measles in this urban poor community in Tondo, Manila.

a. **use of existing records and other materials**

Health statistics about the city were obtained from the local health post in the community, the city health office as well as from the files of the regional health office of the National Capital Region (NCR). Data on measles incidence and death were obtained from both field health offices and from the sentinel hospitals of NCR. Some other data were also obtained from the files compiled by the Field Epidemiology Training Program (FETP), the Health Intelligence Service (HIS) and the Maternal and Child Health Services (MCHS) of the DOH central office.

b. **focus group discussions**

Discussion with a group of selected people from the community was conducted to find their ideas about children's diseases in general, and about measles, its prevention and treatment in particular. Two groups of women were organised, one involving young mothers who are only 25 years old or younger, and another involving relatively older women, at least 30 years old and above. Most women who attended the sessions still have pre-school children, especially the women under 25 years of age. Initially, it was planned that women older than 55 years will also be asked to participate in their own group discussion, but it was found that there were relatively few women of this age group who are available for the FGD. A discussion group was also organised among
men and four older men attended it. The topic list for the FGD was used and projective techniques, particularly asking the participants to complete a statement was found to be an effective means of stimulating discussion about the topic. In both two sessions with women it was observed that the participants were very enthusiastic in discussing the matter, but the men were observed to be a bit reserved. A local leader who was helping me organise the FGDs said that men may find it not too easy to discuss health matters particularly that of their children because it is not their "domain".

c. in-depth interviews

Interviews using an interview guide was conducted with 16 women with pre-school children. The in-depth interviews discussed the research themes at more length. On the average, interviews lasted about 40-50 minutes. Eight of these women had a child or children who got sick of measles between January to May this year, and the other eight had no previous experience with measles among their children. The interview participants were identified through snowball sampling. At first, it was planned that I use the list of 12 children who were recorded in the health centre to have been sick of measles from this particular place (in Area B), but when I presented the names to the local leader she could not immediately identify them. It was then decided that they could just point out women whom they know had children who were sick of measles in the past 5 months. For every mother with child who was sick of measles, another mother who had no previous experience with measles was located within the vicinity. It was found more difficult to get women who had not previously experienced measles because practically all women in the area already had at least a child who get sick of this in the past. Of the eight women with no previous encounter with measles, two mothers said that some of their children were already sick of a mild case of measles called tigdas hangin (wind measles), which they do not consider as a real measles. Since I choose women on the basis of self-reporting of measles, I just decided to include these two mothers who also self-reported having no prior experience with measles. The interview guide was used and discussion focused on children's diseases that they have encountered in the past, diseases that they consider to be dangerous for children, previous health seeking behaviour, perception about prevention of diseases in general. The second portion of the interview focused mainly on measles.
d. Key informant interviews

To get a more complete idea of how the people actually prevent and treat measles in the community I have also interviewed some local health service providers in the area, including two traditional healers in the community. A medical doctor as well as some of the nurses in the health centre were interviewed. The barangay chairman was also asked to express his opinion about the measles problem in his community. The traditional healers were asked about their perception of the measles problem, and also on what advice they give to parents who bring their children sick with measles to them for treatment.

e. Observation

Observation of the community life in general was done to gain a glimpse of the broader socio-cultural situation of the people in Parola. I practically stayed in the place from 9 in the morning to 4 in the afternoon every day, five days in a week for two straight weeks. After that I was coming in and out of the community mainly to get further clarification on certain unclear issues. I and my assistant, who mainly came to the community to act as my buddy and companion because it was not advisable for newcomers to come to the area without company, stayed with different families and tried to fit into their activities as much as possible.

During my fieldwork the staff of Bo. Fugoso health center were conducting mopping up sessions in the area. A big mopping up campaign was organised on the first week of June in Dulong Puting Bato. Because I was then just starting to gain entry to the community, I have asked the health centre staff to allow me to participate in their community meetings as part of the preparation of the mopping up campaign. The community meeting was attended by community leaders, the health officials of the local health post, district health office, city health office and regional health office in NCR. The health officials are apparently concerned that measles cases continued to come out in Parola despite the massive measles immunisation activities conducted in September and October last year, and the mopping up activities conducted between January to March this year, but they decided to resume mopping up operations when it was observed that there were still children who were reportedly getting sick of measles in the area in May this year.
I also observed the conduct of immunisation sessions during the routine immunisation in the health centre, and also during the mopping up activity in Dulong Puting Bato.

However, I was not able to observe how women actually treat children who are sick of measles because by the time that I was already doing the fieldwork in Area B, Parola most children who got sick of measles were already well on their way to recovery.

**Data processing and analysis**

All FGDs and in-depth interviews were tape recorded. These were transcribed verbatim, and the data were collated and cross-tabulated manually. In certain cases, frequencies were counted and tables were constructed for easier analysis. However since much of the data were qualitative the responses were instead compared in terms of their contents. In certain cases, the number of women who mentioned certain responses were counted and cited in the text while in others the frequencies were not mentioned.

**Ethical considerations**

Participation in the study was purely voluntary. The prospective participants are given an explanation of what the study is about, and are assured of the confidentiality of their responses. Verbal consent was sought and women are not forced to participate in case they refuse to do so. Interviews are conducted inside their homes. On two instances, the respondent's husbands were also in the room but they have given us space to conduct the interview without being interrupted.

**Pre-testing**

The research instrument, particularly the interview guide for the in-depth interview was pre-tested in another part of Tondo. Three women were asked to respond to the interviews. As a result of the pre-testing, the order of question were changed, and probing points were also added in the guide.
Limitations of the study

Owing to the short time-frame for conducting fieldwork, only a limited number of people were able to participate in the study. Selection of the research participants, particularly for the in-depth interviews, was made using snowball sampling to find women who self-reported having a child who experienced measles this year. The comparison group was also selected based on their own testimony that they have never experienced measles among their children. The women and men who participated in the study was selected only on the basis of their willingness to participate. For this reason, the opinions and perceptions of the residents in the community who were not willing to participate in the study or those who were not given the chance to participate were not included in the findings. There are also limitations posed by choosing women who self-reported having encountered measles in their children without having the children checked whether they are indeed suffering from measles because of the possibility that it was not measles that have actually affected them. For these reasons, the findings of this study are restricted only within the participants, and no generalisations were made with regard to the perceptions and practices of urban poor dwellers in Manila on measles.
CHAPTER THREE
PRESENTATION OF FINDINGS

This section provides the findings of the study. The first portion presents a general information about the study site, the measles situation, and the measles eradication efforts of the DOH and that of the City of Manila. The second portion presents the profile of the research participants. This will be followed by discussion on previous illness experiences and health seeking behaviour of the women. The last portion will discuss the peoples perceptions about measles and is further divided into four areas: the illness process; the cause of, contagiousness and vulnerability to the disease; treatment and health seeking behaviour; and on the prevention of measles including immunisation.

General background of Parola
This portion presents a brief description of the place called Parola. It will also attempt to describe the local situation in terms of the daily living of the people, and of the social and health infrastructures and services available to the people.

Location and general background
Manila, the capital of the Philippines, occupies 38.3 kilometres of land at the western side of Metro Manila, also known as the National Capital Region (NCR). Its land area is only about seven percent of the total area of NCR, but it is the home of close to 20 percent of Metro Manila's residents. It is estimated that between 16-22% of Manila's residents live in urban slums and squatter areas. This, however, is much smaller than that of Taguig, a municipality located at the eastern part of Metro Manila (near Rizal province), where as many as 87% of its population lives in the slums (DOH-UHN 1995). In 1995, the population density of Manila is over forty-three thousand per square kilometre, a figure which is three times as high as that of NCR.

Located at the western edge of Tondo in Manila lies the community of Parola, considered as the biggest urban poor community in Metro Manila. The community occupies three-kilometre stretch of land owned by the Philippine Ports Authority, near the North Harbor. The place can be reached through the access road going to the International Container and Transport Services, Inc. The whole community of Parola belongs to Barangay 20, Zone 2 of Tondo, Manila. But in terms of health services, Fugoso Health Centre serves only the communities along the northern part of
the access road. The small, southern portion is served by San Nicolas Health Centre, which belongs to Binondo. The word "parola" means lighthouse, and what now becomes the most crowded community of Manila used to be a long strip of land where the port's lighthouse was situated. With the land reclamation and expansion of the North Harbor this small strip of land became bigger. The people living in Parola made the unsteady, swampy reclaimed land by dumping soil and rocks to make more suitable for building small homes. In this community an estimated forty thousand people live in about ten thousand households. In Parola one can see houses built using permanent materials occupying between 50 to 100 square meter lot, particularly those that stand near the access road. However, most houses are made of light and semi-permanent materials in probably less than $25$ square meter plot. In the innermost part of the community one can see very small, dilapidated structures standing on a pile of garbage and some soil with the sea under it, some are even standing on stilts. It is also observed that many houses in Parola have two floors, and most of them are divided into several compartments to accommodate two or more families in one house. It is common for homeowners to have a room or part of their house rented. A room of about ten by ten meters can already fetch up to P1,800.00 (about USD 48.00) in rental fees per month, depending on the other facilities that the owner can provide. In 1990 a cemented wall was built along the whole stretch of Parola with small openings created approximately every 10 meters. These gates became important markers of this huge and overcrowded community. Parola (in Tondo side) has 34 gates in all, covering areas A, B, D, H and F.

This research focused on a cluster of households in area B, which includes the houses in gates 7 to 14. Behind Area B is a garbage dumpsite, which is said to be a transfer station. This means that garbage trucks can temporarily leave their garbage in this area while waiting to be transported in Metro Manila's landfill in San Mateo, in Rizal province. The residents in Parola mentioned that the small garbage dumping site behind their community was supposed to be there on a temporary basis only but this has been existing for three years now. In conversations with area B residents they point to this pile of garbage as the source of diseases in the community. Nonetheless, the people living very close to the garbage dump said that some benefit were also derived from this situation. For instance, a number of families are earning their living by scavenging for salvageable and recyclable materials from the garbage, and some residents also use the dried up garbage material to further make their land more compact. I find the situation with the garbage dump quite distressing. For instance, while doing an interview with some
women who lived within the vicinity of the garbage dump I have to leave the place for fresher air outside. The houses near the garbage site were too close to each other and are too cramped such that very little air seems to circulate within that area. The houses can only be reached through very narrow alleyways, and the ground seems to be always damp.

*Daily living*

The city government has classified Parola as a depressed community because of its crowded condition and because many houses in this community lack basic household sanitation infrastructure such as toilet, potable water source, and the like. Furthermore, many people in this area do not have regular sources of income.

During my daily trip to Parola I have observed that the relatively well off families have water-sealed toilets, and many households share a common toilet with their neighbours or with the owner of the house. The poorer community residents are known to use the "night-soil" way of disposing human waste, wherein they would place the faeces on a plastic bag or newspaper and throw it anywhere. One of the more pressing problems, however, is water. The families in Parola have to fetch water from a communal faucet, which is maintained by the *barangay* council, located at some of the gates in the Parola. Water costs one peso for every five-gallon container, plus transportation costs. The water is brought to the households usually by pedalled tricycles (locally called *pedicabs*) for P5.00 per trip. Other families retail the water at the cost of P5.00 per 5-gallon container. A family of four on the average consumes about 40 gallons of water in a day, for washing, cooking, bathing and drinking. While it may seem that the cost of water is rather affordable it takes considerable time and effort to fetch and bring the water home. In addition to this, there is the possibility of the water becoming contaminated since it is observed that the containers are hardly cleaned, and some are not covered. The implications to health in this aspect are rather obvious.

When it comes to cleanliness, I have observed that most households strive to keep their living area clean and orderly, although there are also households where dirt, clutter and all sorts of rubbish are quite visible. Despite their small living areas, many families in Parola are noted to own TV sets, electric fans and other basic household fixtures and furniture. Nonetheless, there were also households whose possessions were just the barest necessities in order to eat, live and sleep.
From what I have observed, many families in Parola do not have a regular sources of income. Most men are employed as labourers but work is irregular. For instance, a stevedore would only have work when the ship he is assigned to work in arrives in the port. Only four of the 16 women that I have interviewed mentioned that their husbands have regular work. Because they have irregular income, many families supplement their living expenses by vending, peeling garlic, or tending to a little store. Parola is only about two kilometres away from Divisoria, the biggest wet market in the metropolis. Because of this, many of the residents are engaged in activities related to the market, e.g. vending, store helping, and pedicab driving.

It is also alleged by some key informants that there are members of the community who are involved in illegal activities such as drug pushing, gun running, robbery, thievery, and the like. It is for this reason that, according to the barangay chairman, it is uncommon to have a day when the barangay council’s office does not receive complaints about violence and harm being done against persons or properties. The chairman also added that until about 3 or 4 years ago people get killed in Parola almost everyday. It was because of this phenomenon that other Metro Manila residents feared the people coming from Parola, as well as those coming from the North Harbor. But according to the residents in Parola the situation seemed to have changed somehow in the recent years when a vigilante group called "bantay-bayan" (community watch) was created. The group is tasked to ensure peace and order in the community.

It is also observed that the people in Parola love to place bets and gamble. In the dull hours of early afternoons, many women in the area are huddled together playing a game of bingo, while the men also busy playing a game of pool (or billiards). The key informants explained that the people could earn extra money by playing in these games. Besides, they said they hardly have anything to do so it is also a way of keeping themselves busy and entertained.

One positive trait that is found among the residents in Parola is their sense of sharing and unity. Key informants relayed that for several occasions there have been attempts by the government to demolish their homes but they were very strong in their protests against such actions. When the tall cemented wall was erected to fence-off the place, the people again barricaded and negotiated for the creation of opening or gates in the wall for the residents to use.
In the first week of my fieldwork in Parola an old woman died. She has no relatives and was practically penniless. The neighbours within their vicinity helped raise funds in order to buy her coffin and to bring her to her final resting place. Such care for each other is observed also during times of illnesses where neighbours advice each other on what to do, and others even giving a hand in the household work so that the mother can devote her time tending to her sick child. One reason for the closeness of these people is because many of them are relatives or may come from the same provinces.

Social services and infrastructure

It is observed that practically all houses in Parola have electricity, although it is also quite well known that some houses have illegal connections to a power source. As previously mentioned, potable water supply appears to be a major concern of the people in this community. Parola is accessible through the roads connecting to the port area of Manila. Because it is located next to the country's biggest port big trucks, bulk carriers and container vans travel along this road making it dangerous to the people and children who frequently walk through or ride tricycles and pedicabs along the highway. Despite adequate road connection, the community can only be reached by taking a tricycle ride or a taxi since there are no jeepneys that go to the place.

Almario Elementary School and High School is the nearest public school in the community. Children who attend school there usually take the tricycle or pedicab and pay P3.00 and P5.00 fare respectively. The barangay chairman said that aside from this school, small children in the community also attend pre-school education in some 13 public day care centres that he helped establish in the area.

I have observed that all clusters of smaller communities or "areas" in Parola have a chapel at its centre. Community members said that these chapels were built primarily through the efforts of the residents since the local parish has not decided to construct a small church or chapel inside the community. Masses are held in these chapels only at least once a year, that is, during the feast day of their patron saints. The chapels also become a convenient venue for holding meetings and other community activities.
Health services

Public health services

The nearest public health centre in Parola is Bo. Fugoso health centre. It is located about 2
kilometres north-east of Parola. People pay P10.00 for a one way pedicab fare. The health
centre serves 41 other barangays covering three zones of Tondo. Its estimated population
coverage for 1999 is 106,635; about 3199 is targeted for its Expanded Program on Immunisation
(EPI). Bo. Fugoso health centre has three full-time physicians, one part-time physician (for the
lying-in), six nurses, a dentist, two midwives and three barangay health workers (BHWs) as its
staff. One of the physicians assigned in the health centre said that on the average they see 100
patients in a day. Immunisation services are given all days of the week except on Tuesdays.
Mondays are reserved mainly for hepatitis B vaccinations, while the other antigens are given on
the mornings of Wednesdays, Thursdays and Fridays. One of the nurses in the health centre said
that they would sometimes have over 100 infants coming to their facility for immunisation
services especially on Wednesdays, which was designated by the government as the official day
for immunisation nation-wide. In addition to the regular immunisation services in the health
centre, the staff also conduct immunisation and other health services in the community in what
they call "community outreach program", or COP. The COP in Parola is conducted every
Monday morning. According to one of the health centre physicians, they conduct COP in order
to extend services to the poor residents especially those who can hardly afford to pay for the
P20.00 fare in going to the health centre. During the outreach activities the nurses are also
reportedly conducting health education sessions in the community.

Bo. Fugoso health centre also has a lying-in clinic, where they have an average of 30 to 40
deliveries in a month. But about a year ago they used to have as much as 100 deliveries in a
month. The reduction in the utilisation of lying-in services resulted from the creation of a
secondary hospital near the health centre, the Gat Andres Health Centre, which opened in 1998.
Gat Andres is located only about three hundred or so meters away from Bo. Fugoso, and provides
a full range of secondary health care, both in- and out-patient, including paediatric care,
obstetrics and gynaecologic, internal medicine, family medicine and minor surgeries.

In addition to the health centre and hospital, residents in Parola can also seek health care in other
government hospital facilities located within the city of Manila. These health facilities include
Jose Reyes Memorial Hospital in Sta. Cruz (about 6 kilometres away), Ospital ng Maynila (about 4 kilometres away) and the Philippine General Hospital (about 5 kilometres away).

Private health services
There are countless private doctors practising in the vicinity of Parola; in the outskirts of Tondo, in Divisoria, and other nearby areas. The women in Parola mentioned several names of privately practising physicians where they said they took their children when they get sick. Doctors’ offices can also be found in the Divisoria market, at the shopping malls, in the main streets of Manila and other such conspicuous places. The nearest private hospital in Parola is Mary Johnston Hospital located about 3 kilometres away from the area. Private charitable institutions in Manila that provide health services are also another source of health care for the people in Parola.

In addition to the practising medical professionals, the women in this community also seek health care from several traditional healers both within Parola itself and in the neighbouring communities. They mentioned two types of healers with whom they seek care. These are the bone-setters or hilots for treatment of conditions such as pilay', and the arbularyo for other more general complaints (please see section on health seeking behaviour for more details on these).

The measles problem
This portion provides a brief background on the measles situation in the NCR, and particularly in the city of Manila.

The measles situation in Manila
A review in the statistical record of Manila shows that while the city consistently achieves high immunisation coverage it has also contributed over half of the yearly measles cases in the region. As Table 1 shows, Manila had higher FIC coverage rates compared to that of NCR and to the coverage rates for the country.
Table 1. Coverage of fully immunised children, Manila, NCR and Philippines, 1994-1998

<table>
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<th>Year</th>
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<th>NCR</th>
<th>Philippines</th>
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<td>88.9</td>
</tr>
<tr>
<td>1998</td>
<td>99.1</td>
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</table>

Philippines - Field Health Information System Annual Report, 1996-1998*

Based on field health statistics compiled by the EPI technical division in the regional health office for NCR, Manila had the highest measles morbidity rates in 1997, and lowest in 1998, in a five-year period. This rate is higher compared to the figures of NCR or even that of other cities. In terms of case fatality, the rates in Manila appear to be comparable with that of NCR as a whole, and other cities in the region. Manila had highest case fatality rate (CFR) in 1996 (14.5%), lowest in 1997 (2.5%).

Table 2. Measles morbidity rates, Manila, all cities in the region, and NCR, 1994-1998 (per 100,000)

<table>
<thead>
<tr>
<th>Year</th>
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<th>Manila rate</th>
<th>All NCR cities number</th>
<th>All NCR cities rate</th>
<th>NCR Number</th>
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<td>28.3</td>
<td>2441</td>
<td>23.5</td>
</tr>
</tbody>
</table>

*Source: Field Health Service Information System reports compiled at the NCR
N.B. 1998 - based on reports compiled up to June 30, 1999 only*
Table 3. The number of deaths due to measles and as percentage of total measles cases (case-fatality rate) in Manila, all NCR cities and NCR, 1994-1998

<table>
<thead>
<tr>
<th>Year</th>
<th>Manila Number</th>
<th>Manila %</th>
<th>All NCR cities Number</th>
<th>All NCR cities %</th>
<th>NCR number</th>
<th>NCR %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>73</td>
<td>6.7</td>
<td>121</td>
<td>6.5</td>
<td>148</td>
<td>5.3</td>
</tr>
<tr>
<td>1995</td>
<td>58</td>
<td>4.5</td>
<td>127</td>
<td>5.8</td>
<td>162</td>
<td>5.1</td>
</tr>
<tr>
<td>1996</td>
<td>204</td>
<td>14.5</td>
<td>339</td>
<td>12.2</td>
<td>499</td>
<td>10.6</td>
</tr>
<tr>
<td>1997</td>
<td>56</td>
<td>2.5</td>
<td>233</td>
<td>6.5</td>
<td>303</td>
<td>5.7</td>
</tr>
<tr>
<td>1998</td>
<td>31</td>
<td>3.4</td>
<td>86</td>
<td>5.6</td>
<td>103</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Source: Field Health Service Information System reports compiled at the NCR N.B. 1998 - based on reports compiled up to June 30, 1999 only

The epidemiological and surveillance unit in the regional health office of NCR also compiled data of hospitalised measles cases from five hospital sentinel sites. According to their records, Manila still had the highest number of hospitalised cases for measles from 1995 to 1999. The highest number of hospitalised cases was recorded in 1996. Case fatality rate (computed for NCR only) was highest in 1999 at 6.8%, and lowest in 1997 at 4.2%.

Table 4. Cases and deaths of hospitalised measles patients in selected cities in Metro Manila, 1995-1999

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>f</td>
<td>CFR</td>
<td>f</td>
<td>CFR</td>
<td>f</td>
</tr>
<tr>
<td>Manila</td>
<td>989</td>
<td>1853</td>
<td>928</td>
<td>674</td>
<td>519</td>
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<tr>
<td>Quezon</td>
<td>363</td>
<td>685</td>
<td>480</td>
<td>298</td>
<td>217</td>
</tr>
<tr>
<td>Pasay</td>
<td>46</td>
<td>127</td>
<td>65</td>
<td>37</td>
<td>15</td>
</tr>
<tr>
<td>Makati</td>
<td>26</td>
<td>91</td>
<td>68</td>
<td>15</td>
<td>37</td>
</tr>
<tr>
<td>NCR</td>
<td>2716</td>
<td>5.0</td>
<td>4830</td>
<td>5.4</td>
<td>2779</td>
</tr>
</tbody>
</table>

Source: EPI-Info files of the Epidemiology and Surveillance Unit of NCR Note: CFR was computed for NCR only

A staff in the epidemiological and surveillance unit explained that one possible reason why Manila seems to have the highest number of measles cases admitted in the hospitals is because it has the closest access to San Lazaro Hospital, the main sentinel site of the DOH. San Lazaro Hospital is located in Sta. Cruz, Manila. She further added that transient residents in Manila who come from the provinces could have also pulled up the figures for Manila. Despite this, she conceded that due to Manila's high population and over-crowded communities measles would undoubtedly be a problem for the city.
According to the Surveillance Update published by the National Epidemic Sentinel Surveillance System (NESSS) on May 1998 about 75% of those who were hospitalised were not vaccinated. Ages of children who were admitted in the hospitals ranged from 2 months to 22 years (mean 1 year). Confirmation of measles cases through laboratory examinations is now being pilot-tested in some sentinel sites but full implementation of this program may be hampered due to lack of funds. San Lazaro Hospital started laboratory confirmation of measles on the 12th morbidity week this year.

As mentioned earlier, I had my initial entrance to the community at the time when the local health post was preparing for a mopping-up session in urban poor community adjacent to Parola. During the meeting with community leaders some of those involved in the meeting expressed their ideas on why measles remain a problem in Parola, despite the more frequent immunisation visits conducted by the staff of the local health post. Some community leaders and volunteers said that there are mothers in the community who refuse to have their children vaccinated for fear of side effects like fever, or because they thought children having mild fevers should not be immunised. The others were in the opinion that certain mothers in the community do not care so much about the health of their children, citing that these women can have time to play all sorts of card games (in many instance bets are placed in these games) but have no time to bring their children to the health centre for immunisation. On the part of the traditional healers they said that measles is not really a problem as long as care-takers prevent children from developing complications. They said that one way of doing this is by seeking immediate medical attention. According to the traditional healers they would always advice their patients to seek professional help especially for measles because they are worried about the possible complications.

On the other hand, the health officials as well as the other local government officials at the barangay level expressed the opinion that measles remain a problem because of the poor living conditions in the community, especially of crowding. Furthermore, local health providers say that many of those who were seen in the health centre for measles are transient residents in Parola and they just came to Manila during the Christmas break or during the summer vacation. They felt that it is these transient residents who are pulling the number of measles cases up. The high incidence of measles in the area places the local public health sector in the bad light especially considering that the city have recorded a consistent high coverage of FIC with over 90% of its targeted children.
The government launched the Philippine measles elimination campaign (PMEC) in September 1998. This 10-year program aims to interrupt measles transmission by using the PAHO strategy. The catch-up phase was conducted in September to October 1998, and the DOH is aiming to maintain measles immunisation of over 90%. Periodic vaccination of children until five years old will be conducted every 2-3 years.

Between September to October last year the DOH immunised close to 26 million Filipino children aged 9 months to 14 years against measles. It vaccinated children in the community as well as those who are in schools. The Maternal and Child Health Services of the DOH central office reported about 97% coverage for the whole country (using the masterlist as target population or denominator), NCR's accomplishment was 92.5%. Both staff from NCR and implementers in Bo. Fugoso health centre claimed that they encountered problems vaccinating school children from private institutions because of parental refusal to vaccination. A doctor from Bo. Fugoso health centre said that they have to secure parental consent before giving the measles vaccine to any child. Aside from the schools and communities, the health workers in Bo. Fugoso also went to the pier and vaccinated children who have just arrived in Manila, particularly those coming from the provinces. In addition to school children, the DOH also made provisions that shelter homes for disadvantaged children (e.g., abandoned, orphaned, and the like) as well as those living in the streets should also be given measles immunisation.

Despite the massive effort of immunising children against measles, the disease still affected some 1389 individuals in Manila (please refer to Table 4). Manila alone had 37.4% of the total hospitalised cases in NCR. Thirty cases of measles were recorded from Parola based on the surveillance report made by the staff in Bo. Fugoso health centre. Close to half of these cases came from Area B. Apparently, the cases reported in Bo. Fugoso does not include those who were self-treated, or those who went to a private physician, as well as those who sought treatment from a hospital. The highest measles cases in Parola was recorded in January (14 cases), and the least was in May (1 case). Because of the persistence of measles cases in Parola, mopping-up activities for measles were conducted as early as January. On June 4 the last mopping-up operation was conducted in Dulong Puting Bato, a slum community of about 3000 households located at the breakwater in North Harbor (please refer to map 1 in the annex).
In a press statement issued on 16 June 1999, the DOH extolled the gains of PMEC while pointing out that certain regions remain to have high measles incidence. It also maintains that other health services need to be strengthened in order to improve the lives of the Filipinos. In particular, it cited the need for better population policies and strengthened fertility regulation programs to curb the high growth rate of the country (DOH press release, 16 June 1999).

THE RESEARCH FINDINGS

This section reports the findings on the people’s experiences, perceptions and practices regarding measles which is obtained through in-depth interviews with 16 women, focus group discussions with two groups of women and with one group of men, and from observations.

This will be divided into four sub-sections. A profile of respondents will be presented in the first portion. The second sub-section will discuss previous experiences and practices pertaining to illnesses among pre-school children, the third portion focuses on measles experiences, perceptions and practices, and the fourth sub-section talks about perceptions and practices on measles prevention as well as on immunisation.

Profile of participants

Sixteen women were interviewed where information about their experiences, perceptions and practices about children’s diseases, including that of measles were collected. In addition to these 10 women each participated in focus group discussions conducted in two different venues in Area B. One was attended by older women (35 years and older) and the other was attended mainly by young mothers (30 years old and younger). A focus group discussion with men was also conducted but only older men attended, the young fathers were either working or were not interested to join the discussion. All sixteen women who participated in the in-depth interviews have pre-school children, eight of these self-reported having recently encountered measles in their pre-school children, while the other eight have no prior experience with the disease. One mother who claimed to have experienced measles this year had 2 children getting sick of measles, one of which died in January. The women were selected through snowball sampling. In most cases, the informant herself pointed me to the next possible participant. It was more
difficult to find mothers who have no prior experience with measles. In fact, of those eight who claimed having no experience with measles said that they have already experienced a milder type of the disease called tigdas hangin (please see section on perceptions about measles for more details on the different types of measles). Nevertheless, these women were included among those having no prior experience yet since the basis for selecting the women was on self-report of positive or negative occurrence of the disease. Confirmation of measles through medical examination or testing was not considered a criterion for selecting the potential participants.

The women who participated in the in-depth interviews were mostly younger than 30 years old. There were more mothers younger than 25 years who recently experienced measles compared to those who have no previous experience with the disease. It is further noted that three of those with recent measles experience had only one child.

Most women whose children got sick of measles have between one to three children, with most of these children under the age of 5 years. One in each group had eight children. The older participants tend to have more than three children. It is also observed that there were relatively more women having over three children who have no prior experience with measles yet.

Although there was no thorough health appraisal made among the children of the interview participants it is noted that most of their children appeared healthy. Although many women have children who seem thin/small for their age, the mothers themselves do not consider them to be undernourished because they were quite active and playful. However, I have noted that at least 4 of the women have children who exhibited obvious signs of malnutrition, three of them have recent measles experience while one has no prior experience with the disease. It is further noted that most children appear clean although there were also some women whose children were looking a bit untidy during the interview.

In my observation, it appears that most women are fond of giving their children chichiria, or junk foods such as chips and candies, for snacks. Those with small infants were found to give breastmilk to their small children. It was found difficult to observe what types of food these families usually have on typical days because, on several occasions that I stayed and have lunch with a family, they would usually buy (or get it on credit) ready-to-eat food from a nearby store.
But it was observed that most families share only little portions of their food to at least distribute it among all its members.

All of the women that I have interviewed claimed that they are not employed, thus they are staying at home and attending to their children and households most of the time. However, some of them are involved in certain economic activities to help them gain additional income for the family. One mother is tending to her sari-sari store while another is collecting bets for a numbers game. The other women said that they would sometimes have a “sideline” such as laundering and vending. There were also those who would help in family economic activities such as peeling and cleaning garlic for use in restaurants. They are paid P5.00 for every kilo of garlic peeled and cleaned. Some are also involved in making rugs, which they can peddle on the streets themselves or sell to middle-traders. Most of these women have relatives living within their vicinity and it is apparently easy to get help in the care of their small children in case they need to be out of the house for errands or certain economic activities.

All women said that their husbands are the main income-earners in the family. Only one mother, whose 2-year old child got measles in April this year, is depending on her mother-in-law for economic support since her husband is in prison. Of the 15 whose husbands are working, four have regular income in the service sector (security guard, regular employee), the rest have seasonal work as stevedores, or as tricycle or pedicab drivers. The minimum wage for NCR in 1998 is P185.00, and this has not been increased this year.

The study found that half of the women who were interviewed have family incomes below P1,000.00 per week, or roughly P4,000.00 per month. The 1998 data from Ibon, an economic databank, shows that a family of six living in NCR requires P421.75 daily to meet its needs. The family income of those interviewed were way below the legislated minimum wage of P185.00.

While some women appear to be having adequate living quarters, with their sleeping area separated from the place where they work and eat, most of them live in one-room dwellings. In many instances, these women live in a house that has been subdivided into several compartments to accommodate other relatives, usually siblings and parents. Two families were renting their place. Most women who were involved in this study have basic household appliances such as
electric fans and radio. Some of them have television sets, karaoke systems and gas stoves. Only one has a refrigerator, and she happens to own a small *sari-sari* store.

In terms of education, most mothers interviewed in this study have at least 6 years of formal schooling (elementary graduate). Thirteen women reported that they have reached high school, or have completed at least 8 years of schooling. A mother who had not yet experienced measles finished two years in college. The number of years in school for the two groups of women appear to be similar.

All of the women that participated in the in-depth interview were Catholics. Many of these women were from the provinces of Leyte and Samar in south-eastern Visayas. A number of them come from other Visayan provinces and nearby provinces in Luzon. Only one came from a city in Mindanao.

Most of the residents who participated in the study had been staying in Parola for over three years. There were only two women who have stayed in this place for just two years, but they were living in other parts of Metro Manila before settling down in Parola. Many of these women, particularly the young mothers, grew up and got married in this place. Most young mothers are second-generation immigrants from the provinces, while the older women have immigrated to Manila when they were still in their teens and have thus settled in Parola since the time they came to Manila.

It was mainly young mothers who attended the first focus group discussion, while mostly older women attended the second group. The women who attended the FGDs are of similar circumstances as those women that participated in the in-depth interviews. Only four older men attended the male group. There were also younger men that were invited but they all declined due to other commitments. It was also reported that some of those men who were invited did not attend because they do not know much about children’s diseases.

**Previous disease experiences and health seeking behaviour**

This section will discuss the research outcome on women’s previous experiences with childhood diseases. It will also tackle their perceptions about disease prevention as well as their previous
health seeking behaviours. The data presented here are obtained from the in-depth interviews and from the FGDs.

**Past illness experiences of pre-school children**

The participants were asked to enumerate the diseases that they have already experienced in their children. I first asked the women if their children got sick in the past four weeks and to tell me about this illness experience. However, almost all women, except those whose children just recently had measles, said that their children were not sick in the past four weeks. To know more about the illness experience they had with their children I then asked the women about all the diseases that they have previously encountered in their child/children, regardless of when it occurred.

The most commonly mentioned illness is diarrhoea, which was cited by both women with and without experience with measles, and by older and younger women in the FGDs. They also mentioned fevers, cough and colds. The women also mentioned sinat, which is characterised as having low-grade fever accompanied by either cough or colds, or both. Measles was also mentioned by the mothers as one of children's diseases. Other diseases that were mentioned include "weak lungs" (mahina ang haga), carbuncles, chickenpox, and pilay. One mother who have no prior experience with measles mentioned typhoid fever, while another mother said one of her children almost got sick with dengue fever (she said when the doctors examined her child dengue fever was not confirmed). Some women, especially those who have recently encountered measles also mentioned convulsions as an affliction in their children. There were four women whose pre-school children had bronchopneumonia in the past. In addition to these diseases, some women in the FGD also mentioned asthma as among the diseases that have affected their children.

When asked what they think are the dangerous diseases in children, all sixteen women mentioned measles. They also mentioned dengue fever, bronchopneumonia, typhoid fever, cancer and hepatitis B. A few women also mentioned malaria. The women also recognise pneumonia and diarrhoea to be dangerous for children.
Perceptions about disease prevention

The women were also asked their opinion about disease prevention. Many women agree that, in general, maintaining personal hygiene and environmental sanitation is essential in making children healthy and avoiding sickness. They also said that adequate nutrition is important in keeping their children free from diseases. However, while the women mentioned such techniques as the means for preventing diseases in children, in both in-depth interviews and in the FGDs the participants were quick to add that such practices are not always within their means. For instance, keeping their children clean and neat requires water, a precious commodity in the community. They are also candid in saying that they are not always able to provide adequate food for their children because of their circumstances. It was also noted that when not probed the women did not mention spontaneously immunisation as a means of preventing diseases in children.

A number of women said that certain diseases could not be prevented, including measles and chickenpox because they just happen. But they believed that other diseases such as diarrhoeas, dengue fever and weak lungs could be avoided. Many women believe that diarrhoea can be prevented by using boiled water, and by proper use of breastmilk substitute. During the FGD, a mother mentioned that women should not change their milk formulas too often and should use the proper dilution to prevent children from getting sick of diarrhoea. Dengue fever can be prevented by keeping children free from mosquito bites. To prevent her child from developing weak lungs, one mother said that she places a towel on the child's back to prevent sweat from drying up on his skin.

The women also mentioned that children should not be allowed to play outdoors so much especially near the street in order to prevent diseases. The mother whose eldest child had typhoid fever believes that children should not be allowed to take a bath when they just came home from outdoors and/or are full of sweat because this can cause typhoid fever. On the part of the male participants, they believed that children could get ill if they are bathed at the wrong time of the day, i.e., too early in the morning or in the evening. One of the male participants said he would really reprimand his daughters and daughters-in-law if they would do such thing because when the children get sick he would also have to pitch in for the cost of the child's treatment. They also believe that children get sick because of dirty surroundings.
Although cleanliness appears to be the main means of preventing diseases, some mothers expressed different opinions. Two women said that children could easily get sick if they are too pampered, i.e., too clean. They believe that diseases can be prevented by exposing their children to some "bad elements" in the environment, particularly the dirt and pollution. Another woman thinks that children can become prone to disease if brought immediately to a doctor for mild illnesses. She believes that children's bodies should not be trained to expect medical care even for what she perceives as simple illnesses such as mild fever, cough and colds.

Conditions such as usug\(^{3}\) were mentioned by the respondents as among the illnesses that affect their children. These conditions can be prevented by using certain amulets that are pinned on the child's clothing as well as by making a cross symbol on the child's forehead when it is brought outdoors. Usug was not outrightly mentioned by the women as an illness that affects their children but this came out when I inquired about the use of the amulets pinned on the children's clothes and about the red symbols of cross made on the children's foreheads.

*Previous health seeking behaviour*

When asked what health actions they take when their children fall ill, most women appear to self-medicate especially fever. But they also said that the symptoms do not disappear, or if the child appears to have worsened they would bring their child to the doctor, either in a public or private clinic. There were also women who mentioned that when their children get sick they would first seek the help of a local traditional healer, either a bone-setter or an arbularyo, for treatment. Bone-setters are usually preferred when they suspect their children of having pilay, while an arbularyo is sought when they suspect usog, or when the symptoms seem to be rather vague that the women themselves do not know that the child is ill from. Others mentioned that they brought their children to the hospital for treatment; these were women whose children had experienced typhoid fever, and those who experienced convulsions in their children. The young participants all mentioned that their own mothers and/or mothers-in-law helped them take care of their children when they get sick.

The women also mentioned using the medicines that were prescribed in a previous illness episode as a means of self-treatment. The older mothers who had more children more commonly mention this manner of self-treatment. Several women also mentioned the notion of hiyang in
both the choice of medicines and/or of the healer. They said that sometimes their children are not *hiyang* with the doctor but is *hiyang* with the traditional healer, or vice versa.

During the FGDs some participants, particularly the younger mothers, mentioned that they preferred going to private doctors because of shorter waiting time and of perceived better health service provision. The women usually pay a fee of P20.00 (about 50 US cents), plus transportation cost and the cost of medicines when they visit private doctors. However, they also added that when they have no money they would seek health services from the public health centre, despite having to wait sometimes the whole day before they can be seen and cared for by a doctor. Other women said they also seek the help of other charitable health care institutions for the health problems of their children.

**Perceptions about measles**

_Measles as an ill-health condition: its signs and symptoms, normal progression and complications_

The local terms used to describe what would approximate the biomedicine defines as measles are _tigdas_ (in Tagalog) and _tipdas_ (in Visayan). The people in Parola used both terms when they talk about measles without causing any misinterpretation or misunderstanding because many of them come from the Visayas provinces. The women characterised measles as having fever of three to five (sometimes even seven) days duration accompanied by cough and colds. In the posters and other reading materials used by the DOH to spread information about measles the term "_tigdas_" is used in Tagalog speaking provinces in Luzon, while "_tipdas_" is used in Visayan speaking provinces of Visayas and Mindanao.

Measles is perceived as a dangerous disease but is also believed to occur naturally. This notion is shared not only by the women and men who participated in the study but also by the traditional healers who were interviewed. The women, in particular, believe that all people would normally be sick with measles once in their lifetime. The women have also observed that measles is an epidemic disease and occurs at certain times of the year. They said that similar to diseases such as dengue fever and sore-eyes (conjunctivitis) many children in the community acquire measles when it is in season or is a trend in a certain point in time ("uso-uso").
Tigdas (or tipdas) as an illness appears to be quite well-known among the residents of Parola. They are familiar with the signs and symptoms associated with this condition, as well as with the complications that may accompany it.

The information about signs and symptoms of measles were obtained by asking the participants to describe the physical characteristics of a child suffering from measles. Most women said that children suffering from measles have high fever of three to seven days duration accompanied with cough and colds, followed by the eruption of small, red rashes that looks like prickly heat appearing first in the neck and trunk area and then throughout the body.

The following are some of the people's descriptions of children who have measles.

*His fever went on for one week. After one week the measles came out. It also took another one week before the measles were healed. His lips were cracked and dried because of too much heat. He also had cough and colds.* (mother with recent measles experience, age 19).

*She had fever for one week before measles came out. The fever continues until the measles come out. If these do not come out the child will become very weak, and would hardly feed. She just stares at us and does not playing with us.* (mother with recent measles experience, 22 years old).

*She had fever, and she was very hot. She also had flatulence. After one week the rashes appeared. Her eyes were red and she seems to be drowsy most of the time.* (mother with recent measles experience, 34 years old)

There were also some women who said that children would appear drowsy and lethargic, lose their appetite, and have pink eyes when sick with measles. The lips are also observed to be red and dry, with white spots appearing in the soft tissues of the mouth, which they call singaw. Losing appetite during the infection was also reported. Three women reported that their children had convulsions when they were ill with measles. Another mother mentioned that her child also had loose stools during the infection, and still another mentioned flatulence.
The women whose pre-school children have not been sick with measles yet cited fewer signs and symptoms of this malady. However, all of them also said that children with measles usually have high fever for three to seven days before the appearance of small, red patchy rashes all over the body. Some of them also mentioned pink eyes, and only one each said that children suffer from diarrhoea, singaw, and losing weight due to poor appetite. It is also noted that, despite having no first-hand experience in taking care of a sick child, the women were able to recognise the two most easily recognisable symptoms of measles, i.e., fever and patchy red rashes. This is probably due to the fact that these symptoms are the most obvious, hence they are also most easily remembered. Even without prior experience of measles among their children, these women appear to know the most important signs and symptoms of measles from the experience of their neighbours, friends, and relatives.

Thus, measles does seem to be a well-known condition among the people in this community. What the women and men described as measles seemed to fit into the standard definition of (suspected) measles cases used by the DOH.

But it is also observed that some people were not consistent in using the term tigdas or tipdas. There were those who used this term to refer to the rashes that come out after the febrile condition, as in the first three quotations referred above (before translation from local language). There is also the tendency for the people, particularly the women, to separate the symptoms and consider it as an illness in itself rather than looking at the group of symptoms as embodying one syndrome or disease. It is probably due to this reason that treatments used for measles are meant mainly for relief of symptoms, and treatment is judged according to how effective it was in making symptoms disappear rather than on how a syndrome has been cured.

The women, both those who experienced measles as well as those who do not have previous experience with this illness suggested three types of this malady. These include tigdas hangin (wind measles), tigdas pula (red measles) and tigdas itim (black measles).

The rashes were not so many and it also looks like a mosquito bite. The child also has fever but very mild. (mother with no previous experience with measles, 35 years old)
The wind measles... that is not as dangerous as the real measles. Rashes also appear, there will also be fever, but it's not severe. In red measles, the rashes are very red, and while this is a true measles it is not also as bad (as the black measles). Even when the child has red measles she can still play. (FGD with younger women)

In wind measles the child gets healed after three days, but with real measles it takes one week before the child is cured. (mother with recent measles experience, 22 years old).

There is a kind of measles called wind measles. It is not dangerous. The rashes in tigdas hangin is also very red, all over the body but it disappears the following day. It heals very quickly. But the child would also have fever. It is not dangerous because the rashes all come out at the same time. that is what I know about wind measles. (FGD with older women)

The above passages suggests that a child is considered to be suffering only from tigdas hangin when he or she has mild fever for about three to five days followed by the appearance of small, red rashes throughout the body, which usually disappear in two to three days. The research participants believe that such type of measles is not dangerous, and does not need special type of care or treatment. I asked the women whether they know what tigdas hangin is called by doctors, two of them said that it is referred to as German measles by their private physicians. When I inquired from the public health doctor about whether they have also heard their women clients discuss tigdas hangin with them, the doctor said that this probably refers to roseola infantum. Nonetheless, these findings seem to show that women in Parola have some ideas about different types of febrile conditions that are accompanied by rashes

The women also talked about two types of tigdas totoo (real measles); these are tigdas pula and tigdas itim. Of these two, the women consider black measles to be more dangerous. During the in-depth interviews as well as in the FGDs I could not seem to get a consensus on how these two conditions are differentiated. The signs and symptoms that I outlined in the first paragraph of this section are said to be that of tigdas pula. When the rashes are about to heal, the women noted that it usually turns dark in colour, and this is then referred by most women as tigdas itim. They also said that when the rashes begin to turn dark this is usually the time when the complications also appear, except for convulsions which can occur at the height of the febrile
phase. It is for this reason that women in Parola consider this phase as the most dangerous period of a measles illness episode. However, there were also women who said that tigdas itim has a dark red rash from the time the rashes start to appear. There were three women who experienced measles who claimed that their children had tigdas itim, two of them said that it was dark from the start while another one said that it was red at the beginning and became dark during the last stage of the illness process.

If it is red or wind measles the child is still able to play. Like this child, she had measles but I still saw her playing, it is like she was not ill at all. But with black measles, that one is really dangerous. The child becomes very weak, does not play and losses its appetite. The rashes in black measles is also red, but it turns dark when it is about to be healed. But in red measles the rashes remain red until it get cured. (FGD with younger women)

The rashes in real measles is also red, and it also has a sign where the children's eyes become red and the fever is really very high. When that happens you really feel scared. The red measles is similar to the wind measles, it is also red and looks like the rash in prickly heat. Then it becomes dark as the rashes goes down the body. For example, if the rashes starts in the head, the darkening of the rash also starts from that area as the rashes appear in the lower parts of the body. (FGD with older women)

There were also women who cautioned that if a child with tigdas hangin is not given proper care the condition could develop into real measles. This is especially true if the child is given a bath before all the rashes have disappeared. One of the mothers who recently experienced measles in her child said that prior to the measles attack her child had tigdas hangin. However, she thought that it was only prickly heat so she gave her child a bath. A few weeks after that event her child developed high fever, and soon thereafter her child developed the rashes that were typical of real measles.
I thought it was just prickly heat, we bathe the child. When we brought her to the doctor we were told it was wind measles. After a few weeks, the child had real measles. She had fever for a week and then the measles appeared. (mother with recent measles experience, 22 years old).

Wind measles is like prickly heat. The child also develops fever but very mild. This is not dangerous, but care should be made to avoid developing it into real measles. (mother with no previous experience with measles, 27 years old).

Because of this experience these young mothers suggested that other women should listen to the advice of older women in the care of their children. They said that utmost care should be given to children even if they are suffering only from mild illness conditions because it might develop into something worse.

During the feedback session I asked the women again to differentiate tigdas pula and tigdas itim. They said that both ways of differentiating it are correct, i.e., the one where the measles turns dark when it is about to be healed, and the other where the rashes appear to be dark from the start. However, they also said that what they usually experience is that of the former. They said that there were very few children whose rashes appear to be red from the start, and they also said that such types of measles indeed seem to be rather severe (matindi na sakit iyan).

When we were discussing the reasons why measles is a fearsome illness, the women have interchangeably used the words komplikasyon (complication) and kombulsyon (convulsions). The women know that other conditions could accompany measles infection and they are aware that these complications may cause their children to die of measles. Among the complications mentioned by the participants are bronchopneumonia, pneumonia, and convulsions. But convulsions seems to be the most common complication known to these women since both those with and without previous experience with the illness mentioned this as a problem. The women are also aware that diarrhoea, which is also considered to be an accompanying symptom for measles, can cause dehydration, which can be fatal to the children. About three women noted that blindness could develop after measles infection. The women added that blindness could result if the child is allowed to sleep for most of the time, as well as when rashes penetrate the eyes.
Many women are aware that measles can cause death. In their opinion, death in measles results when the rashes does not all come out. The term used is "naluhugan ng tigdas" (literally, sinking of measles). It is for this reason that women have several means of inducing the eruption of rashes. They said that once the child's body is covered with the patchy, small, red rashes then they are confident that it has all come out (please see section on treatment for more discussion on this matter). The importance of allowing all rashes to come out is underscored by women who said that some children die of measles because the mothers have not induced the rashes. They also believe that when measles have sunk the child would be prone to developing complications such as pneumonia and diarrhoea. Furthermore, the women also added that care should be made with the other symptoms such as fever and cough so the child would not have fits of convulsions and develop pneumonia.

In terms of the outcome of measles infection, only one out of eight women lost a child to measles. The child was one year old at the time of his death, and the mother was nursing a month-old infant when it happened. Two of her young children actually had measles at that time, the other one survived. The woman also said that she really had a hard time coping with the illnesses of her children when she has just given birth to her eighth child barely a month before two of her older children contracted measles. She even asked her sister to mind the other sick child while she was attending to the wake of the other one who died.

There was also another small boy who just turned a year old when he had measles appears to be suffering from a lingering respiratory problem, just a week after the disappearance of his rashes. This condition was noted by the mother herself and she explained that the boy seems to be having difficulty overcoming the illness.

The other six children appeared to have recovered from their illness rather well. The mothers commented that the children's appetite has already improved. They also added that while the children have lost some weight since the illness episode, they have slowly gained back their lost weight. Several mothers used the child's propensity to play as a criterion for saying that the child is well on its way to recovery.
The cause of contagiousness, and vulnerability to measles

When I asked the women about what they think is the cause of measles several mentioned fever as the cause of this malady. This is because, as they have observed, the eruption of rashes came after several days of high body temperature in their children. In fact, some of them considered the coming out of rashes, or *tigdas* itself, as "*singaw ng init sa katawan*" (steam of the body's heat). As mentioned earlier, the study participants believe in the importance of allowing the rashes to come out liberally in order for it to be cured.

When probed further as to what they think makes their children sick of measles, the women answered that others infected the children (*nahawaan*). They think that children get infected when they come in close contact with the sick child, i.e., they live in close proximity and share intimate items such as clothes. One mother who has not experienced measles among her pre-school children said that measles is transmitted through the breath of the sick child, which is then mixed into the air that other children would breathe in. This is related to the idea that measles is caused by the wind or air. There were also several women who said that measles is contagious because once it affects a family it does not leave the house without infecting all those who did not have yet been infected with measles.

*It does not leave the household until all its members were infected, that's what I heard.*

(mother with no experience with measles, 34 years old).

It is also believed that measles is most contagious from the time when the rashes appear until the time that it turns dark and eventually heals. Some women believe that measles is most contagious when the fever begins to subside because that is usually when the other child would start developing fever prior to the development of rashes.

Many respondents, in both in-depth interviews and FGDs, believe that measles is brought about by the wind/air and by the weather. There were also those who mentioned dirt in the environment as the cause of measles. Naturalistic concepts about illness causation seemed to be more pronounced personalistic explanations. Apparently, the women consider measles as a condition brought about by nature or the environment. But measles is believed to be a condition brought by nature and, according to them it is something that is inevitable.
The women believe that measles affliction is the result of some ill-luck. While they are sure that everybody would have to face this illness sometime in their lives, the time when this illness would strike a person is unpredictable, although they are aware that this occurs mostly in children. The term they used is, "pana-panahon lang", and "tiempo-tiempo lang". Both literally translate to timing. As one participant in the FGD with younger women said, "kung gustong punwan sa iyo ng tigdas, dadapuan ka talaga" (if measles wills it you can get infected with it). The Filipino proverb, "hindi bubukol kung hindi uukol" (it will not make a mark if it is not meant to be) appears to apply here. This, somehow, absolves the parents of any responsibility in the occurrence of the illness in their children. After all, measles is an inevitable disease.

Because measles is a natural and inevitable condition, the participants believe that all children are vulnerable to get the infection. They do not believe that thin (or malnourished) children are more prone to get the infection. According to them, measles does infect even children who appear to be fat and healthy. However, they do think that, in general, some children apparently get sick more easily than others. They said that children who are more prone to get sick are those that have weak lungs (mahina ang bago, or mahina ang pulmon), whose mothers were sickly during pregnancy, and whose family is known to be rather sickly.

The women also observed that while measles is a contagious disease not all children get infected at the same time. Even among mothers with recent experience only one child (except for the one whose child died of measles last January) in the family developed measles this year. When asked whether there are certain characteristics that make children vulnerable to measles the women, as well as the men, could not identify any. Instead they said that it is not the proper time for the child yet to develop measles but they expect the child to have the disease sooner or later in their lives.

But one mother who also experienced measles this year said the probable reason why her older child, a boy, was not affected is because he is a boy, and therefore his body was stronger in resisting measles. She made this observation because, according to her, both her children were fully immunised yet only the younger one, a female, was infected.

One mother said the reason why her other children were not affected is because they already had measles in the past years. Another woman whose seventh son died of measles this year,
speculated that immunisation could have saved her other three young children from having measles because these three were fully immunised.

Because measles is brought about by nature, many women are in the opinion that that measles is not preventable. They said that it is something that can really happen whether they like it or not. As one mother said, "normal lang talaga iyan sa mga bata habang lumalaki" (it is just normal for children to be sick with measles as they grow older). While it is believed to be a normally occurring illness in children, the women themselves observed that not all children get measles at any given time.

There were also mothers who believe that measles is the consequence of changes in the weather and is observed to be more common during the cold and wet season between January to March. They have also observed that when the weather changes drastically during the day and night, i.e., it is hot and sunny during the day but cold and rainy at night, the children become vulnerable to cough, colds and fever. And as earlier cited, the women consider febrile condition to be a precursor of measles.

The women both dreaded and anticipated the disease. They are afraid of measles because they are aware of the complications of this infection and the possibility of losing a child because of the condition. However, they also anticipate their children to get sick of measles regardless of the vaccination status of their children. The women claimed that everybody would get this disease in his or her lifetime and there is nothing that can be done to prevent it (please see section on measles prevention for more discussion on this matter). A child who does not get infected when still young is expected to get the disease when he/she grows older, e.g. in adolescence or adulthood. Such perceptions are reflected in the following excerpts of the interviews:

*Yes, I am anticipating that my children will later get measles. I have prepared myself for that. That time will really come. But I prefer my children to get measles when they are older so they can tell what they need or want, or where they feel pain.* (mother with no previous experience with measles, 23 years old).
Although the women does seem to anticipate their children to be sick of measles there are also those who said they wished their children would just not get it. As one mother explained, it is an illness so they would not want their children to be sick of it. However, she also believes that it is something inevitable and she then just wished that children would have it only when they are older.

Another mother, whose child died of measles in January this year, said that lack of immunisation could be a cause for measles. She said she had plans of immunising her seventh son against measles. It was this boy who was afflicted and eventually died of the disease. She claimed that during one of the outreach activities of the Bo. Fugoso Health Centre staff, she brought her son for immunisation but was told that the health team are not going to immunise children from their area, and that they are targeting children from other parts of the community instead.

Treatment of measles

The treatment modalities that were mentioned by the women as well as by the male participants of this study were basically the same. Most mothers who had recently experienced measles among their young children this year mentioned a combination of self-care, traditional healing and medical care from a Western-style doctor as means of sustaining their child through the illness episode.

Of the eight women, two mothers reported using self-care only, four reported a combination of self-care, traditional healing and modern medical care, while another two said that they only gave home remedies and sought medical attention to their children.

Self-care is used primarily to induce the coming out of the rashes. All of the women believe that the rashes in measles have to come out completely in order to avert complications and possible death. Self-medication is also practised in the control of fever, i.e. through the use of antipyretics (the brand names mentioned were Tempra and Asplet). The services of traditional healers are sought mainly to help the women diagnose the ailment of the child, as well as in confirming the mother’s suspicion that her child is suffering from measles, and this is done through the performance of a ritual called *tawas-tawas*. Traditional healers who are expert in bone-setting are also sought for treatment of *pilay*, since in some instances the women said the symptoms exhibited by their children typify that of *pilay*. Some traditional healers can perform
both the diagnostic ritual and curing the pilay, and the women may prefer to go to such healer. The role of the traditional healer in the care for measles, however, is limited to diagnosis and treatment of pilay. The traditional healer whom I have conversed with said that measles is an illness that needs the expertise of doctors, which is why they would advice their patients with measles to see a doctor immediately. The service of a western-style doctor, on the other hand, is preferred in the treatment of severe coughing and for diarrhoeas that might accompany measles infection.

One of the mothers who used self-care exclusively explained that since doctors prescribe medicines such as paracetamol (for fever) and antibiotics (for cough) she preferred to give these medicines on her own than seek medical advice. "Ganoon din naman ang ibibigay nila sa anak ko" (they will just give my child those medicines anyway). It is noted that this woman is a single mother and she is partly depending on the support of her mother-in-law for her and her two children's subsistence. It seems that having limited economic resources she opted to just use her previous knowledge on medicines used for such conditions to save money on fare and doctor's fees.

Most women whose children got sick of measles this year combined self-care, traditional healing and modern medical care in the treatment of their children's malady. In most cases, self-care through the use of paracetamol for fever is the first health action that these mothers take. When the fever does not subside or occurs intermittently, and if it has accompanying symptoms such as coolness of the lower extremities, the women would then try the hilot or bone-setters. They may also go to the arbularyos and perform a ritual called tawas-tawas. If the fever remains unresolved, or when more serious symptoms occur such as severe coughing and convulsions, the women would then seek the care of a modern medical doctor, either in the public or private setting. although most of the mothers in this interview claimed to have utilised the services of privately practising physicians. Such actions are typified in the experience of a 19-year-old mother whose first child, a boy of 10 months, developed measles in April this year:

He had fever and his feet felt cold, and they said he may have pilay so I brought him to the hilot across the street. His continued to have fever so we brought him to Gat Andres Hospital. The doctor gave us medicines for fever and for cough, because he was also coughing. But his symptoms persisted, until we brought him to an arbularyo, there I was
told that my son is having measles. (mother with recent measles experience, 19 years old).

There were two mothers who said that they only sought consultation from a western-trained health provider, although they also provided home remedies to their children. These women expressed their concern that measles is a very dangerous disease and it may be difficult to cure if they don't have the doctors to guide them. Both women said that their children were not confined in the hospital although they have to go to the doctor's clinic (both utilised a private medical practitioner) everyday. It is also noted that these two women have regular incomes. One is a wife of a security guard while the other has her own store.

When the women were asked how they came to decide on whom to seek care and at which point of the illness process to seek help, they said that they themselves make the decision. In terms of when to seek care, most women said that from their previous experiences they know that when children exhibit symptoms such as very high fever and cough these usually needs the expert advice of a medical doctor. One of the participants, a young mother who only has one child, told me about her fears when her child got sick. She said that she does not know what to do, which is why she went to three types of health service providers during the illness episode. Several of these women also said that they depended on the advice of their mothers or mothers-in-law when it comes to the care of their sick child. Only two women said that their husbands also participated in the decision-making on whether to seek health care and where to get it. It is noted that these two are young couples with both having only one child.

The mother whose son died of measles last January claimed that she mainly self-medicated her child when he was sick of measles. She said she gave him paracetamol for fever and antibiotics (amoxicillin) for cough. She also applied the traditional home remedies such as giving eggs and mongo beans to the child. However, she relayed that her son suddenly developed convulsions on the evening when they boy died. She tried to bring him to Mary Johnston hospital, a private hospital located about four kilometres away but the child died while they were still on their way to the facility. This woman gave birth on the 25 of December, hence she has a month-old baby to take care of when her little boy was afflicted with the illness. Her husband works in a factory and stays in his workplace to save on his travelling expenses.
The women, as well as the men, who participated in the study, mentioned several home care techniques in the treatment of measles in both in-depth interviews and FGDs. The most commonly mentioned treatment is the use of *kolantro* seeds (*Corindrum savitum*). *Kolantro* (or coriander) is used by soaking the seeds in water and using the water for sponging the child's body. It is believed that kolantro can facilitate the development of rashes.

The women also reported the use of mongoose (*Phaseolus radiatus*) seed, a small, round, green vegetable which is known to be rich in protein. There are several ways of using mongoose beans. One way is by soaking the seed in clean (preferably boiled) water and giving it to the child to drink. They can also cook this vegetable and give it to the child to eat. Others cook the beans on a hot pan without oil, they would then crush the semi-burned seeds, decoct it and give it as a special drink to the child. When asked why they would give mongoose to their children and not just any other nuts or beans, the women replied that it was what their elders taught them (turo ng mga nanatanda). In an FGD, one older woman mentioned that the mongoose seed is like a symbol of the rashes since the rashes in measles are also characteristically small and round. Because of the bean's size and shape (small and round, similar to the rashes) it was thought that its ingestion into the body, either by eating it or by drinking of the water where it was soaked, would induce the coming out of the rashes.

Another common means of inducing the rash is the intake of raw egg yolk mixed in an orange drink (most commonly Royal Tru Orange™). Another way of doing this is by giving a half-cooked egg to the child to eat. Again, the participants, particularly the younger mothers, explained that this practice is traditionally used for the treatment of measles and that they are just following the advice of their older folks. One mother whose son is still exclusively breastfeeding said that she took the raw egg herself rather than giving it to her son to eat. She believes that the curing properties of the raw egg would still reach her son through her breast milk.

Practically all study participants, regardless of gender, age and previous experience with measles mentioned these three techniques - the use of *kolantro*, of mongoose seeds and eggs. This is an illustration of how well-shared the knowledge and practice of these techniques are in the community. And there is reason to believe that this practice is not confined only to the urban slum dwellers in Parola because while field-testing the instrument, respondents who come from
another part of Tondo also mentioned these three techniques. It is also possible that these
techniques or its variations are also being practised in other parts of the country.

The participants, particularly women with recent experience in measles, also revealed that they
would give seafood to their children, which is also meant to induce the development of rash.
After the rashes have appeared, they would then give fish which does not bleed too much, such
as milkfish and several small varieties of fish. The latter practice is suggested to avoid binat or
relapse, which is believed to be more serious than the first illness.

To prevent darkening of the skin after the rashes has healed, the women would apply the sap of a
yam called singkamas (Pachyrhizus erosus) on the child’s body. Singkamas is a white and juicy
rootcrop, which is usually eaten raw or as a salad. An alternative to singkamas would be the
leaves of green onion. Applying vinegar on the closed eyelids of the child can prevent blindness,
a known complication of measles particularly among the older women.

The women also observe several rules to prevent relapse and/or worsening of the illness. For
instance, bathing and exposure to air is avoided. The women said that, especially when the
rashes are still erupting, air/wind is avoided by keeping the child in the room with closed
windows. The children are not also given a bath until the rashes have dried up and are about to
disappear, and when the fever has already subsided. Instead of giving the children full bath, the
women just sponge their bodies with water, preferably one in which kolan-tro was soaked.

The women believe that breaching these rules can be bad to a child who has measles. It can
arrest the eruption of the rashes, a situation that all of them try to avoid because this is believed
to be the main factor that leads to death in measles. In the FGD with older women it was
explained that allowing the rashes to liberally come out is essential in getting rid of the excess
heat. They said that when this heat is not allowed to come out it can manifest as other illnesses
in the body, such as diarrhoea and also possibly pneumonia. They also believe that, when
measles is about to be healed exposure to air/wind and bathing can also result to a relapse, which
is also considered to be dangerous. However, one mother did not obey these “rules” and have
allowed the use of electric fan in her child. She said her doctor told her that wind and water is
not contraindicated with measles and that these are even helpful in cooling her child’s body.
There were also other women who have observed the different ways in which modern-style
doctors and the lay people approach the problem of measles. They noted that in the hospitals the
children are exposed to the electric fan even when the rashes are still coming out. They also
noted that some doctors oppose to the use of kolantro. According to these women, when they are
in the hospital or in the turf of a modern-style doctor they would tend to follow as the doctor's
advice because they trust the doctor's judgement. Besides, they said, the clinics and hospitals
are equipped with the necessary instruments needed to save their children's lives in case
something untoward happens. However, once they are in their own homes they would rather do
as their parents and forebears taught them because they felt that this is a much safer thing to do.
Without the doctors nearby, they could not trust that electric fans are harmless to the children,
nor could they do without kolantro or mongo.

Seriousness of measles

As mentioned earlier, the people in Parola consider measles to be a dangerous disease for
children. It is considered dangerous because of the accompanying complications which can lead
to death. As one mother said:

> Sometimes you would not know that your children have many other diseases aside from
measles. It is those other diseases that can bring your child to death, such as
bronchopneumonia and diarrhoea. (mother with measles experience, 22 years old).

During the FGD with younger women, one woman mentioned that measles is a condition that
requires the care of a doctor. She said a child could die of measles if not given prompt and
adequate care by a doctor. Many women agree that if proper care is not given to a child having
measles this can lead to the development of fatal complications, as mentioned in the previous
sections.

There are also women who believe that the occurrence of measles as well as of other diseases is
considered as a test of the child's strength to survive. A child who recovered from an illness
without any apparent mishaps is considered to have borne the disease well (nakayanan niya). A
child who developed complications, was brought to the hospital and recovered is described to
have fought the condition with difficulty (nahirapan siya). And finally, a child who dies is
considered to have lost the battle, and the child was not expected to live longer than what was
willed by God (hinid niya nakayanan ang sakit; hanggang doon na lang siya). However, there were also some women, particularly those who have no personal encounter with this illness yet, who said that some children die of measles because of inadequate care given by their parents. They cited that some women in the community only bring their children to the hospital when the child is already fighting with life.

One mother who recently encountered measles in her only son said that after the experience she became less scared about measles because it was not as bad as she expected. She said that her child survived the illness episode quite well. All it needs, she said, is for mothers to take good care of their children so that they can recover quickly from the illness.

When compared with other diseases that the women mentioned many said that measles is less serious compared to dengue fever and typhoid fever. They said that the cost of treatment for latter ailments is much more expensive than that for measles. They are also aware that the signs and symptoms of dengue and typhoid fever are more horrifying than that of measles. As one mother said, with dengue blood comes out of a person's nose and bleeding can occur which she said is rather scary. The mother who experienced typhoid fever in her first child about three years ago that the expense of having her child hospitalised for several days made this disease much more difficult to handle. A mother who said her oldest child had weak lungs is in the opinion that weak lungs is a more difficult disease than measles, too. She said that her younger daughter had measles and did not seem to be overly sick and she did not have to bring the girl to the doctor so often. But with her son's weak lungs she had to buy medicines for six months for his treatment, and they also have to go to the health centre at regular intervals.

Between measles and diarrhoea, some women said that diarrhoea is more dangerous because it can lead to dehydration. But many women also said that measles and diarrhoea pose similar threat to children's lives because sometimes they occur simultaneously. The same is also said about pneumonia.

\textit{Immunisation in the prevention of measles}

As mentioned in the sub-section on the cause of measles, the people in Parola believes that measles is a natural disease, it is inevitable and, therefore, not preventable. But when asked whether they have immunised their children 9 of the 16 women interviewed said they are; seven...
of these were women whose children have not been sick of measles yet. Only one mother said that not all her children were fully immunised because they were not in Parola at the time that her second child was supposed to complete her immunisation. (please see Table 5).

**Table 5. Immunisation status of children of women with no previous experience with measles**

<table>
<thead>
<tr>
<th>Immunisation status</th>
<th>No. of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>All fully immunised</td>
<td>7</td>
</tr>
<tr>
<td>Some fully immunised, others partially</td>
<td>1</td>
</tr>
<tr>
<td>immunised</td>
<td></td>
</tr>
</tbody>
</table>

**Table 6. Measles immunisation of children who developed measles this year**

<table>
<thead>
<tr>
<th>Immunisation</th>
<th>No. of children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>2</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
</tr>
</tbody>
</table>

*N.B. One mother had two children who developed measles. One of the children died while the other survived.*

The data in Table 6 shows that a total of nine children were sick of measles this year in the eight women interviewed. Of these, two were immunised against measles, six children were not immunised, and the immunisation status of the other one was not known. Of those children who were not immunised, three were not eligible for immunisation yet (i.e., the child is ≤ nine months). The mothers with children other than those who got sick said that most of their older children were immunised. The women whose children were eligible for immunisation but were not immunised cited perceptions of wrong contraindications as well as not having time to go to the health centre for the immunisation services as reasons for failing to complete immunisation of their children. Wrong contraindications cited include mild fever and coughing. Two of the children who developed measles before they turned nine months were reported to have been given measles shots after the illness episode. It was given during the mopping up operation conducted by the staff of Bo. Fugoso Health Centre. One mother said she told the staff that the boy had just recovered from measles but the staff gave the boy a measles shot anyway. All of
these 16 women utilise the immunisation services of the local public health centre, and occasionally from the outreach services conducted by the health centre staff in the community.

When asked what do immunisations do in their children’s bodies, the women answered that it is a "pongontra" (having a counteracting effect) and "panlaban sa tigdas" (to fight off measles). The women believe that immunisation is some kind of a medicine that is given to the child to help him recover from measles without so much complications. It is a medicine that is given to the child even before measles sets in. They believe that immunisation is part of the cure for measles, rather than an element that can prevent the disease from occurring.

The women also said that when a child has measles immunisation she/he can still develop measles but it will be mild and with lesser accompanying ailments because of the presence of the medicine in their bodies. This, according to some women, is how measles immunisation is explained to them by the health centre staff. When I interviewed some of the staff in the health centre, they explained that while they emphasise that immunisation is a means to prevent measles, they also tell parents that some children can still develop measles even if they are immunised. But they also further inform the parents that measles of vaccination failures are usually milder than usual.

The mothers of children who were fully immunised and have not yet experienced measles believe that for the moment the vaccine has done well in protecting their children against the infection but they are also expecting the children to develop measles when they get older, i.e. in adolescence.

(Measles immunisation) can prevent measles, that is what I heard. If in case the child would still get measles it will not be very dangerous. At least the medicine is already inside the child’s body. That is what I heard from them. But my children have not experienced measles yet, so I do not know if this is true. (mother with no previous experience in measles, 34 years old).

Sources of information about measles
Another aspect that was also explored in this study is the sources of information about measles. The findings show that most women in the community learned what they know about measles, especially in the aspect of recognising the symptoms and its treatment, from their mothers. There
were also those who learned it from other older women relatives such as their mothers-in-law and aunts. Another significant source of information about measles is the health centre, particularly on the issues of immunisation and treatment of measles. Three women said that they learned about measles as well as about other disease by reading the posters and other reading materials found inside the health centre, especially while waiting for their turns to be attended to by the health centre staff. Their private doctors are also an important source of information. Although mentioned only be few women, learning about measles through informal class sessions was also said to be one venue for knowing about this disease. Aside from the doctors, the women also mentioned the traditional healers as a source of information, particularly on the techniques to induce the eruption of rashes.

Among women whose children were not sick with measles yet, they said that the experience of their neighbours or relatives becomes an important source of knowledge for them. One mother said that instead of panicking, she now knows what to expect and what to do in case her children will be sick of measles.

Notes:

1 Pilay literally means sprain. But when the women are asked what symptoms does pilay have they said that when children have fever and their feet feel cold, especially during the day, these are indicative of pilay.

2 Mopping up is an immunisation activity where the health personnel try to completely vaccinate all eligible children for a particular antigen, in this case for anti-measles vaccine. Ideally, the health staff would have a complete list of eligible children which is obtained through a census and all of those children who are in their list but are not vaccinated would then be followed up in their homes to be given an anti-measles vaccine.

3 The women describe the symptoms of usug as fretfulness and crying, flatulence, vomiting and sometimes also slight fever. Tan (1987) described that usug is believed to be caused by the interaction of people where one’s force is supposed to have acted negatively on the other. Treatment is usually done by wetting one’s finger with one’s saliva and rubbing it on the child’s forehead, tummy or feet.

4 This is an oracular ritual that is used mainly to identify the affliction of a child. It is performed by pouring melted candle on water and by studying the shape formed in the water. The participants said that arbularyos can identify who caused their child to have usug. They also said that this method of diagnosis can also tell them if their children are having measles.
CHAPTER FOUR
DISCUSSION OF FINDINGS

This chapter will discuss findings of the research and try to find its implications particularly in
the control of measles. The first part provides the highlight and discussion of the study findings,
the second part will discuss the implications of the research outcomes.

Highlights and discussion of the findings

The research outcome shows that most women whose children were afflicted with measles early
this year were young while those who have no previous experience with measles were relatively
older. Although there are some variations, most of the women share similar characteristics in
terms of income, education, religion, ethno-linguistic origin and number of years in residence in
Parola. Since most of the participants are young mothers many of them still have few children.
Most of the older women who participated in the study have at least four children. The women
who participated in both in-depth interviews and FGDs are not involved in the formal labour
sector but are engaged in irregular, informal economic activities.

Most participants said they only experienced mild illnesses such as fever, cough and colds, pilay,
and sinat among their children. Although there are also those who have encountered more
serious maladies such as diarrhoea, pneumonia and bronchopneumonia, typhoid fever, measles
and convulsions.

In general, the research participants believe that diseases can be avoided by keeping their
children and the environment clean, by ensuring that children do not play in the dirt, and by
giving children nutritious foods. In biomedicine these are considered health promotive activities.
While the women, in particular, appear to be knowledgeable about health promotive activities,
they are also conscious that they may not always be able to adequately comply with these due to
their difficult circumstances. This has an important implication in the occurrence of diseases
among the children in this community because when their children do get sick the women cannot
be blamed, nor could they be labelled as neglectful - they are only victims of difficult
circumstances.
The women, however, believe that some diseases cannot be prevented, such as measles and pneumonia since they have no particular known immediate cause but are attributed to some vague elements in the weather/season and/or in the air/wind.

In terms of previous health seeking behaviour, the participants said they mainly do self-care in the first few days of the illness. If there were no relief of symptoms they would either go to a traditional health provider or to a western-style doctor, depending on how they perceived the symptoms that were exhibited by the children. They think that there are certain ailments that require treatment by a traditional healer and there are also conditions that are best cured by a medical doctor. They also added that the cost of the treatment is one of the considerations in selecting a care-giver noting that in several instances a traditional healer’s cure is effective thereby not necessitating a visit to the more expensive medical practitioner. Nonetheless, there are also instances where self-care, treatment by a traditional healer as well as by a western-trained medical professional are utilised side by side. The notion of *hiyang*, both in terms of choice of medicine and of caregiver was also mentioned. The idea of a medicine being *hiyang* and is therefore effective was also described by Hardon (1990) in her study on self-medication among the urban poor in Manila.

The findings in this study seem to illustrate that the people in Parola are knowledgeable about measles. They are aware of its signs and symptoms and are also informed that complications arising from measles can be fatal to children. The complications that participants enumerated are similar to what biomedicine considers as the conditions that may superimpose in measles infection. In this regard, local notions about the complications of measles and its consequences, to a large extent, agree with the precepts of biomedicine. In many ways, the knowledge that women have about the complications of measles come from their own personal experiences with measles, either directly with their own children or indirectly with the children of neighbours, friends and relatives. This awareness could also be the result of information and education campaigns launched by the national public health agency against measles which was first launched on a massive scale almost a decade ago (Zimicki, et al. 1993).

The participants in this study consider measles as a dangerous but inevitable disease. This seems to be shared by women of different age groups, as well as of men. This was also the view of the traditional health providers that were interviewed. Both women with and without experience in
dealing with measles have found this illness to be fearsome, yet those who have not yet experienced measles seem to anticipate that their children can also develop the illness sometime in the future. All eight women with no previous experience with measles said that if given a choice they would rather want their children not to contract measles but they believe that this is one disease that everybody must pass through in life, similar to chickenpox and sore-eyes. It seems that while they would not want their children to get sick of measles the notion of it being an inevitable illness is pervasive, and the idea that it is not preventable is quite common.

The idea that measles is a dangerous but normal disease in children could have resulted from their observation about measles - that it occurs at certain months year after year, that immunised children still develop measles although the infection is thought to be mild, and that some children do get killed by this illness. The notion that measles in children is a dangerous but normal disease is rooted in the daily realities that people in this community experience. The ideas and practices pertaining to measles are shared among the residents in this community not only because of their physical proximity but also because of their social nearness. Many of these people share the same economic standing, come from the same provinces in the Visayas (primarily from Samar in south-eastern Visayas), and many of them are also related to each other either through consanguinity or by affinity.

The fact that measles continue to occur every year make perceptions about its being normal disease for children linger. Acceptance of immunisation appears to be rather high, particularly for those women whose children have not been sick of immunisation yet. Despite this relatively high acceptance of measles immunisation the participants does not seem to find a relationship between immunisation status of their children and their not having been sick of measles. The women still anticipate their children to get the disease in the future. One implication of this finding is that the people could still not find evidence that children are being protected against measles because of immunisation, or maybe they just did not realise this because such information is not shared and discussed with them. It can be possible that as long as people do not believe in the prevention potential of measles they may not also be very active in supporting the measles elimination campaign. In this regard, health education and information would be very helpful in increasing people's awareness about measles and its prevention.
Acceptance of immunisation also does not connote understanding of what vaccinations do in the children's bodies. Many women this study think that measles vaccines act as a medicine in the cure of measles rather than a prophylactic that prevents the occurrence of the disease. The women claim that this is what they learned both from hearsay and from the health providers themselves. On the one hand, this notion helps in cushioning the people's trust from becoming eroded when they realise that children still get sick of measles even after being immunised. On the other hand, such ideas could help foster the thinking that measles is indeed a non-preventable disease. These ideas may run counter to the pronouncements of public health and government officials about eliminating measles in the country by the year 2008. It is therefore important that adequate and accurate information about measles infection and measles prevention through immunisation be provided to the caretakers of the children in order to foster

The finding that women accept vaccinations without necessarily understanding its mechanism nor believing in its capacity to prevent diseases may also mean that people in this urban slum have a strong faith in the power of modern medicine. This could be due to their exposure to health information which they may have obtained from the materials in the health centre, or from other popular means such as through the television, radio and the print media. This may also be part of their modernising process, a part of their attempt into becoming full-pledged members of an urbanised and modern society such as Manila. And of course, this could be the result of the rigorous health education efforts of the public health agencies where acceptance of public health measures are considered more important than making sure that people in the community understand the purpose and mechanisms of such health measures.

Health seeking behaviour in relation to measles is similar to how the women in the study also act when their children get sick of other diseases. Symptom relief is still the main reason for choosing a health action, while considerations of cost are also important. Treatment action is also observed to be aimed mainly at allowing the disease to take its natural course, particularly in making the rash appear abundantly. This action is related to the research participants' belief that obstructing the natural course of measles can result to fatal complications. A mix of home remedies and self-treatment, as well as of biomedical care appear to be the most common mode of treating measles. Many women believe that measles is best cured by a western-style doctor.
The findings also suggest that when it comes to seeking health care for their children the women appear to be quite independent in making choices and in pursuing that choice. The women also have the support of their own parents, particularly their mothers, as well of older women relatives and neighbours, in seeking health care for measles.

Older women relatives, particularly the mothers, are also found to play an important role in transmitting knowledge about measles to the research participants. There were also those who mentioned that information about measles are obtained from the IEC materials in the health centres. This demonstrates that education materials from the public health offices are also important sources of information which can help increase people's awareness about measles particularly on its prevention.

Another important finding of this study is the participants understanding of how measles is transmitted and what characteristics of children are vulnerable to this disease. The participants think that measles is contagious and transmission of the disease can happen through close contact and droplet infection. However, they do not think that certain children are especially vulnerable to measles. Infection with measles could partly depend on fate, and partly on the innate strength of the child to fight the illness. Children who are observed to be quite playful even with some health problems are considered to be having good internal composition such that he or she is able to withstand the illness without its apparent negative effects. How a child is able to resist measles infection is not very clear to the participants, they just attribute it to fate saying that it was not yet the proper time for the child to be sick with measles, but they expect him or her to manifest the illness sometime in the future.

The previous passage may be describing an attitude called fatalism, which is said to be one of the underlying factors in much of Filipino's ideas about illnesses and misfortune (Tan 1987). One can say that the explanations research participants gave about the occurrence of measles have a trace of fatalistic ideas. However, when placed in the broader context of urban poor life, it is easier to understand why people have such notions about measles. In a community where threats against lives and properties are a constant reality it is not difficult to see that the people develop a sense of risk-taking rather than risk-aversion. With meagre resources and probably little or no alternatives when diseases strike them, these people the bahala na (come what may) attitude and consider negative illness outcomes as acts of God. When the child gets sick or dies because of
measles, no one can be blamed because it is the act of God, or because the disease has won over
the child's ability to defend its body from the ravages of a disease. As Tan (1987) explained, this
bahala na attitude can have both positive and negative dimensions. Bahala na can be an
expression of one's submission to the difficulties in life, or it could also be a battle-cry to
overcome problems no matter what the cost. Furthermore, in the case of measles infection, the
women in the study have knowledge of home remedies and biomedical products that can help
their children survive the ravages of measles. They also turn to immunisation, which to them is a
form of medicine that would protect their children from the serious consequences of the disease.
This has somehow made them confident that when the infection does occur they are ready to face
it and they already know what to do with it. Despite this knowledge the participants also claim
that some children die because of measles. In this instance, they would again look at fate to
rationalise the negative outcome of the disease (i.e., the child could not overcome the illness),
although they are also aware that some factors on the part of the care-takers could also be
responsible for the child’s death.

Implications to measles control and prevention

Health education
One implication that emerged from this research is the importance of giving adequate and proper
information about measles, and that it is preventable through immunisation. There also seems to
be a need to find a way of explaining what immunisation does to the body to make it more
comprehensible to the mothers. Concepts like protection or pangontra (counteracting effect)
may invoke the idea that measles infection still has to occur and the vaccine acts like a medicine
that helps resolve the infection. In biomedical explanation of immunity, the vaccine (weakened
or killed micro-organism or its component) is introduced in the body to stimulate the
development of antibodies. The antibodies serves as the body’s defence against the specific
antigen such that the presence virus or bacteria (in this case, the measles virus) could not cause
the person to manifest signs and symptoms of the disease. Infection, therefore, does no occur.
Although in the case of measles vaccines about 15% of those who are immunised could still
manifest the disease when infected with the virus. This information should also be explained
clearly to the mothers or caretakers.
The use of the terms *tigdas* and *tipdas*, whether they refer to the rashes alone or to the whole syndrome of symptoms exhibited in measles infection remains to be clarified. The participants in this study are found to place high importance on the rashes for the diagnosis, treatment and prognosis of measles. This could also be an important aspect of the health education and information dissemination activities on measles. The people can be made aware that, even before the appearance of the rashes, their children could already be suffering from measles when they exhibit symptoms such as high fever, cough, colds and conjunctivitis, and should be advised to seek health care promptly.

One of the findings of the study is that immunisation is relatively well accepted by the women in this community. However, it is also true that some women were not able to complete the vaccinations of their children because of fears of side effects, as well as of misconceptions about contraindications. This shows that there is a need for continued promotion of immunisation, and the need to reassure the mothers that minor ailments are not contraindications for immunisation. They also need to be informed about the side effects of immunisation, and it should also be explained that mild fever is an expected effect of vaccination.

**Surveillance**

Disease surveillance is an important public health activity, which is done in order to track down the occurrence of infection as well as to measure the effectiveness of public health measures. As the research finding have shown some women whose children contracted measles this year did not go to the health centre for consultation and treatment, but they either self-medicated or went to a private doctor, or both. Those who have not seen a doctor at the public health centre may not have been included in the government's official statistics of measles cases this year. There is also a possibility that these children are actually not infected with measles but are suffering other febrile conditions with exanthem, but this could not be confirmed because a doctor did not see it, or because no tests are performed.

The three classifications of measles constructed by the study participants could have important implications in making differential diagnosis for any febrile conditions accompanied with the appearance of rashes. Although this dimension still needs further investigation in order to find a pattern in how women differentiate these three types of measles, it can also be said that the classifications constructed by the people from their own experiences appear to be valid even in
the point of view of biomedicine. Black measles, which is considered to occur mostly among undernourished children, can indeed be quite fatal (DOH-MCHS 1998). This classification can also have implications on the health seeking behaviour of mothers where mothers may delay treatment for children who are thought to be suffering only from *tigdas hangin*. Furthermore, because *tigdas hangin* is not considered to be a real measles this can be confused with mild measles infections (or subclinical measles) among children who are already immunised against measles. This could have implications in case reporting and ultimately on the statistics of measles.

**Immunisation services**

Measles is a condition that has been largely controlled in most developed countries while it continues to be a problem in many developing countries. Immunisation certainly contributed much in the control of measles in industrialised societies and in some developing states, but the contribution of poor living conditions, particularly in urban slums, to the continued occurrence of this problem is also quite well-known (de Quadros 1996; Aaby and Samb 1994; Strebel 1998; Henderson 1998). In this community where measles remains a problem the people are described to be living in a rather distressing situation in terms of crowding, environmental sanitation and hygiene. It is certainly possible that inadequate immunisation for measles has contributed to the measles problem but the social and physical conditions of the community have made it susceptible to rapid transmission of measles infection. In this regard, one implication of the study is that vaccinations alone may not just be the only solution to the threat of measles but a more comprehensive approach in improving the quality of life among these people may also be warranted. This could mean providing a broad range of social services aimed at poverty alleviation and improving the general welfare of the people, e.g., by providing better income opportunities, better housing, improving social services for water and sanitation, health, and others. Of course, attaining better life for the disadvantaged could not happen in a few years time and controlling measles appears to be a very urgent public health concern. It is for this reason that immunisation against measles remains the most viable and cost-effective means of controlling the disease.
CHAPTER FIVE
CONCLUSIONS AND RECOMMENDATIONS

This chapter presents the conclusions derived from the study findings as well as the recommendations, both for future research on measles and for programs on measles control.

Conclusions

The study on lay perceptions and practices on measles among the residents in Parola, an urban poor community in Manila has shown that parents consider measles to be a dangerous but normal disease for children. The people in this area feel very concerned when their children contract measles because of its possible serious complications, which they know could be fatal. For this reason, the participants, especially the mothers, perform several techniques meant to prevent complications as well as to allow the disease to take its full course. One important belief of measles is that its course should not be impeded, particularly the development of the rash, otherwise it may be harmful to the child.

One can possibly say that the people’s perceptions about measles and their practices related to it has a basis in what is happening in the community. Because they have observed that children in the community continue to be sick of measles year after year the research participants think that measles is a normal and inevitable disease. In addition to this, the study participants have seen children dying from measles and for this reason they believe that measles is a serious ailment.

The study have also shown that people in the urban slums, at least for those who participated in the study, are quite aware of the signs and symptoms of measles. Among all symptoms of measles that they mentioned, the women consider rashes as the most important and the treatment actions also revolve around the rash - how to make it appear and to ensure that all has come out. Fever also seems to be important especially since it is recognised that very high fevers can cause convulsions, which is the most commonly mentioned complication of measles. Treatment for measles remain symptomatic, and one can say that this approach is very much similar to the biomedical strategy in treating measles. Like most viral infections, measles in itself has no definite cure because it is self-limiting. The biomedical treatment goal is also meant towards symptom relief and prevention of complications.
What appears to be a striking finding of this study is about the participants' perceptions about the cause of measles and its relationship to the prevention potential of the disease. The participants explain that measles is caused by the elements in the environment and possibly also by the change in the weather or season. It appears that the forces in nature which cause measles is regarded to be strong such that the people are powerless to prevent it. Because of this perception the participants in the study do not see the possibility of measles prevention. On the other hand, they have been found to be rather receptive of immunisation, and are aware that measles is one of the diseases where vaccinations are given for in the health centre. However, they seem to regard vaccinations to either provide only temporary protection for their very young children against measles infection, or as a medicine that partly helps the child to recover from measles. This perception made it possible for women to maintain their trust in measles immunisation even if they know that some children still became sick of measles despite having been vaccinated. In this regard, there is a clear gap between how that the research participants perceive measles prevention and the ideas of the public health officials and biomedical experts. There is therefore a need to provide knowledge and better understanding about measles, especially on its cause, in order for these people to appreciate measles prevention and control measures.

Another important finding of the study is about the participants' notion of fate in explaining the occurrence of illness in a child. This is because, as they have observed, not all children would develop the illness but only those who have been unlucky to contract the illness. It is believed that children who have a strong bodily constitution would be able to fight the illness and thus not develop measles. The research participants do not consider nutritional status as an important factor in the development of measles. But then measles do occur, they think that prompt and proper care is important to allow measles to take its natural course and to prevent complications.

This study has shown that people's perceptions and practices pertaining to measles, its prevention and cure, is affected by their previous experiences with the disease, either through their own children or through their neighbours and relatives. Utilisation of health services from the health centre, particularly for immunisation, does not seem to affect the people's perceptions about this disease. Despite high acceptance of measles vaccination there still remain an expectation that everybody must have measles in their early life. Because the research participants do not vary so much in terms of socio-demographic characteristics it is difficult to say whether such variables as age, educational status or ethno-linguistic group has an effect on
measles perceptions and practices. Past illness experiences in children and previous health seeking behaviour for their pre-schoolers does not seem to have any effect in their ideas and practices related to measles except in the use of medicines such as antipyretics and antibiotics, or the decision to choose a traditional healer for specific types of symptoms. It appears that for measles the participants already have a ready arsenal of home remedies, modern medicine and traditional healing modalities in their hands. For the women participants, their mothers and other older female relatives appear to be the most important sources of information about measles especially on matters related to treatment. For this reason, the perception about quality of health service, either from a private or public health provider, does not seem relevant to the women’s health seeking behaviour for measles. However, women do sometimes prefer the services of private medical practitioners mainly for reasons of accessibility and convenience. The study also shows that ideas about children’s defences against diseases does not seem to play an important role in measles infection.

Due to the limited number of participants this study cannot draw generalisations based on the outcome of the study. However, this does seem to point various interesting points for further study involving more research participants.

**Recommendations**

The following are suggestions for further research in this area:

1) There is a need for finding out more about the three types of measles by conducting a combination of epidemiological and anthropological study, or a multi-disciplinary study. This would be done in order to see how relevant knowledge about these three types of measles could be in teaching people about measles particularly on recognising its signs and symptoms and in what ways these could influence their health seeking actions.

2) Further investigation is warranted on a broader range of people about their perceptions, attitudes and behaviours with regard to measles prevention and treatment. This is because the findings from this current study which is conducted on a small section of urban poor residents in Manila could not provide adequate insights in the social and cultural factors that may affect measles control and prevention in the country. It would also be interesting to compare the perceptions and practices of people who have different socio-demographic characteristics or those who come from different geographic areas of the country.
3) There is also a need to study the perceptions and practices on measles of people coming from remote areas of the country, particularly the indigenous groups. This study has explored perceptions about measles among those who are relatively well-exposed to new or modern ideas and practices in health care such as immunisation, and among people who relatively have better access to health care, but the people in the remote areas may not have adequate access to health services or to health information. Knowledge about the perceptions and practices of different social groups would be important in designing culturally appropriate health education messages.

4) There is also a need to study the contents of the IEC materials used by the DOH in relation to measles to see whether adequate information are provided. The study findings have shown that having limited understanding of what vaccinations do in the body have resulted in various misconceptions about measles prevention and vaccination. Showing evidence of measles prevention by presenting data on the number of measles cases and immunisation coverage could also be done to make them realise that indeed measles can be prevented.

The following suggestions are made for public health planners and health service providers with regard to measles control and prevention:

For the lay population

1) The use of green mango and eggs, as well as other protein-rich foods, in the treatment of measles should be encouraged since these can provide additional nutrients to the child's sick body. The people should also be encouraged to use these as food rather than as "medicines" and should be given in bigger quantities so that adequate amount of nutrients is provided.

2) The people should be encouraged to participate in the measles elimination campaign. They could be taught how to identify suspected measles cases and should be asked to report this to the nearest health centres so that the health workers can follow-up the patients. They can also participate by becoming advocates of measles vaccination. In this regard, they must have a good understanding of measles and measles immunisation in order to properly communicate education messages to their neighbours and friends.

For the front-line health workers
1) Immunisation should be promoted in the communities and effort should be made in correcting false contra-indications and for explaining the people about the side-effects of measles.

2) The people should be encouraged to seek health care when their children are suspected of having measles. Efforts should also be made to follow-up suspected measles cases in their homes. This will help the health workers to treat and monitor their measles patients, and would also help ensure adequate disease surveillance for measles, which is an important component of the measles elimination campaign.

For the health managers and planners

1) There is a need to develop culture-sensitive health education messages that would aim to provide better understanding about measles prevention. These messages should be disseminated to a wide audience. Various means should be used in disseminating this information, including television, radio, the print media, as well as the health centres. Informal discussions about measles and other diseases should be done at the community level where there is a possibility for better interaction between the people and the health educators. Privately practising doctors and private hospitals should also be encouraged to provide adequate health education on measles to their patients.

2) There is a need to develop better means of estimating populations in urban poor communities so that targeting eligible population can also be made more realistic. This will probably result in improved coverage in these communities, and hopefully, fewer measles cases in the future.

3) Privately practising physicians should be encouraged to report measles cases seen and treated in their offices and hospitals so that more accurate data on the magnitude of measles incidence can be obtained.
Annex 1. Problem analysis diagram

Lay perception on measles among residents in Parola in Tondo, Manila

Broader socio-cultural context particularly related to urban life and health

- Socio-demographic characteristics
- Past experiences with measles
- Sources of information about measles
- Perceptions about childhood diseases in general
- Previous health care seeking behaviour
- Perception on the quality of health services
- Perceptions about child defenses against diseases

Perceptions about measles
- etiology/risks
- severity
- contagiousness
- prevention
- treatment

Activities for measles prevention
- immunisation
- others

Treatment strategies in case measles occurs
Annex 2
Research Instruments
In-depth interview guide for women with pre-school children

Name: ___________________________
Date/Time: ______________________

1. Perceptions about childhood diseases in general:
   Have your child been ill in the past 4 weeks? If yes, can you tell me more about it?
   Probe for:
   • what disease was experienced
   • other diseases that they know that affects children
   • diseases that are considered to be serious or dangerous for children
   (wait for measles to be mentioned in their list, or probe for it)

2. Previous prevention and health seeking behavior for children:
   a) What do you usually do when your children get ill?
      Probe for:
      • what measures were taken at home for relief of discomforts
      • medical or health actions taken (where taken the child, who decided to take child there, reasons for
taking the child there, etc.
      • outcomes of the health action (perceived efficacy, satisfaction with the health service utilized)
   b) Do you think children’s diseases can be prevented (mention the disease that the respondent have
      previously stated)?
      If yes, probe for:
      • How do you prevent your child from becoming ill
      • Ideas about bodily characteristics in children that make them resist diseases
      • If immunisation is mentioned, probe about her own experiences with immunisation in the past,
        particularly on her perceptions about quality of immunisation services

      If no, probe why not.

3. Perceptions about measles:
   3.1. Can you tell me more about measles (use local term, e.g. tigdas)?
      Probe for:
      • causes of measles (what makes a child fall ill with measles?)
      • vulnerability to the disease (are there special characteristics of children that make them prone to get
        measles? what are these?
      • resistance against disease - do you know of characteristics in children that make them vulnerable to
        measles?
      • signs and symptoms of measles
      • perceptions of severity (if you compare measles with other diseases, i.e. those mentioned above,
        how would you rank measles against those diseases?)
      • perceptions of contagiousness (do you think measles is contagious (nakakahawa)? If so, how does it
        become transferred from one child to the other? How would you compare its being contagious with
        other diseases?)

   3.2. Information about measles
      How did you come to know about these things regarding measles?
      Probe for:
      • sources of information (who told you about these and/or wheredid you learn about these
        information?)
• types of information provided
• their relationship (if applicable, e.g., mother, grandmother, midwife, etc.) to the source of information

4. Perceptions and practices about measles prevention
What do you think about measles prevention?
Probe for:
• ideas about possibilities for preventing measles (is it preventable?)
• practices for prevention of measles
• immunisation practices:
  • in general - were your children immunised?
  • perceptions on quality of immunisation services and possible link to ideas about measles immunisation
  • against measles - were your children immunised for measles?

5. Experience with measles

For women with own experience with measles:
Can you tell me more about your experiences when your child got ill with measles?
Probe for:
• treatment practices (home remedies) (what did you do at home to treat measles?)
• health seeking (did you take the child to a healer? where did you take the child? what were the reasons for taking the child there?)
• who were involved in decisions about health care practices
• outcome of measles (what happened to the child who had measles?)
• how did this experience affect the way you look at measles now?

For women with no personal experience with measles:
Have you seen a child who had measles?

What do you know about what is usually done to treat children with measles?

How did this experience affect the way you consider measles now?

Socio-demographic characteristics

Age:
Number of children: total:
  living:
Educational attainment:
Employment status:
Household income: (in pesos per month)
Own income: (in pesos per month)
Religion:
Ethnolinguistic origin:
Number of years stayed in the community:
(If recent migrant note whether from the province or just from within Metro Manila)

(NOTE: many of these questions are inter-connected, in the actual interview the sequencing of the topics/questions may vary depending on how the respondent tells her story. Hence, I plan to prepare a shorter topic list to help me in the interview process, but I will also take a look/review this guide before terminating the interview to see if I have covered all the topics I wanted to discuss).
Discussion guide for FGDs

1) Ideas about childhood diseases
Probe for:
- dangerous vs. not dangerous diseases (using their own idea of whether a disease is dangerous or not)
- measles
- opinions about disease prevention in general
- ideas about what make children get sick (weak vs strong children, etc.)

2) Perceptions about measles
Projective techniques: Complete the following sentences:
Measles is a....

If my child have measles, I would....

(n.b. write key words of the responses on the board for everyone to see, and use it to stimulate more discussion)

Probe for:
- prevention of measles - opinion on whether measles is preventable or not, how measles is prevented, why are such activities done
- treatment practices for measles - what is usually done when a child has measles, why are these done to the child
  - Probe for:
    > home remedies
    > "folk" treatment
    > "biomedical" treatment
    > which is usually preferred, or how they make decision to seek health care from several sources

3) Sources of information about measles
Observation list:

a) general physical characteristics of the community
b) distance to the nearest health post
c) availability and number (if possible) of local drug stores and local herbal shops (if these shops are reported to sell amulets and medicines for measles)
d) observation of patient-provider interaction during immunisation sessions (esp. for measles)
   1. what information does health provider give about measles
   2. how does the providers treat the mothers (having friendly conversation, shouting at patients, etc.)
e) observation of patient-provider interaction in treatment of measles:
   1. how diagnosis was made
   2. how this is explained to the mother
   3. the advice/treatment given to the child
Topic list for key informants:
(health personnel in the local health post, traditional healer, city health officer/personnel, local leader)

1) Perception about whether measles is a problem in the community.

2) Opinion about what the people know about measles: how it starts, how it is recognized, whether it can be prevented, how it is prevented and how it is treated.

3) Opinion about how measles should be controlled in the community (public health? Immunisation? poverty alleviation?), and how this should be done.

4) Own experiences with measles control activities.

5) Own experiences with treating patients with measles (if applicable).
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