Spuits, Stuips and Saline Drips
A framework of health-seeking behaviour for childhood illnesses in urban South Africa

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Abstract

This study highlights important factors influencing choice of health-care provider for Black children under 6 in Johannesburg and Soweto. In-depth interviews with caregivers, providers of traditional and Western health-care and focus groups with caregivers were conducted prior to a utilisation-based survey with 206 Black caregivers from public and private clinics, public hospitals and traditional healers. Differences in caregiver beliefs, family influence, social support, child, illness and caregiver characteristics, enabling factors and provider characteristics at the different health facilities were investigated. Beliefs as determined by religion, background and influence of an older relative are important for deciding whether a child is ever given traditional medicine. Perceived severity is a strong determinant of whether no treatment, home treatment or professional help is sought, and socio-economic status would determine whether this is in the private or public sector. Enabling factors, provider characteristics and subsequent outcome or past experience can easily modify these pathways.

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Introduction

Johannesburg and Soweto form a melting pot of languages, cultures, and indeed health paradigms. In this context, it is not surprising that different ideas about childhood illnesses and how to manage them abound. Data on health-seeking behaviour for childhood illnesses in this urban pluralistic health setting where traditional healers, faith healers, private clinics and public health care facilities all offer very different types of health services is however limited (LeBeau, 1998; Bland *et al.*, 2004). Home remedies, over the counter medicines (OTC), traditional medicines and church medicines, whether they are used appropriately or inappropriately, all have an important role to play in the management of childhood illnesses in South Africa, yet many doctors do not know what choices caregivers make beyond their clinic doors. Concepts of health and healing in South Africa today have been shaped by cultural borrowing between African, Indian and European groups present over the centuries (de Wet, 1998). Because these concepts continue to evolve and South Africa's health system is still redressing inequities (SAHR, 2002), the network of explanatory factors for the choice of health care provider or treatment can be complex. 2004 saw the 10th anniversary of democracy in South Africa. After 10 years of restructuring and free public health care for children under 6, this study aims to highlight some of the main factors influencing choice of health-care provider for Black children under 6 in Johannesburg and Soweto, South Africa.

Research for the current study was carried out under the auspices of Birth to Twenty (BT20), the largest and longest running longitudinal birth cohort study of child health and development in Africa (http://www.wits.ac.za/birthto20/). Before commencement of the cohort, health service usage was identified as one of several research questions which needed addressing when looking at the health and well-being of children, particularly in an environment undergoing rapid urbanisation (Yach *et al*., 1990). By understanding why and how caregivers make choices for their child's health care, information can be produced that informs health promotion and public health policy to be able to provide culturally appropriate systems of healthcare as well as Westernised models. Improving care-seeking behaviour in turn reduces childhood morbidity and mortality as the existence of services does not always guarantee their use or appropriate use. Firstly an overview of 2 widely used models of health-seeking will be given, followed by a description of the South African health care setting in order to situate the context in which caregiver decisions take place in Johannesburg and Soweto.

Theoretical Focus

General models of health care utilisation

There are a large number of models of health-seeking behaviour which propose to explain why an individual chooses to use or not use different kinds of health 'services'. Two well-known models include Andersen's *Behavioural* model (BM) (*v.* Andersen 1968, 1995 for detailed description) and the *Health Belief* model (HBM) (*v.* Rosenstock, 1974; Janz & Becker, 1984 for detailed description). The BM has been used as a basis internationally to predict and explain the utilisation of health services (Wan & Soifer, 1974; Stock, 1987; Thind & Andersen, 2002; Fosu, 1994), through the use of 'predisposing' (demographic; social structure and health beliefs) 'enabling' (personal and community-related; service availability) and 'need' factors (actual and perceived severity of illness, general health). 'Enabling' and in particular 'need' factors tend to explain most of the variation in health services use, although Andersen (1995) states that perceived need is itself a consequence of social structure and health beliefs. In the past the BM has been criticised for

being too broad to be able to capture the complexity and dynamic nature of health seeking behaviour, having neglected such factors as social networks, culture, health beliefs and organizational factors (Pescolido, 1991; Rogers *et al.,* 1999). Newer versions of the BM however have attempted to incorporate these factors, including feedback loops to explain the dynamic nature of health service use as a function of consumer satisfaction with the service provided and health outcomes (Andersen, 1995).

The HBM focuses on perceived susceptibility, severity, benefits, barriers and 'cues to action' (Becker *et al.* 1977; Kirscht, 1974; Mugisha *et al.*, 2004). If people *believe* they are susceptible to a condition, *believe* that it may have a serious outcome, *believe* that a particular course of action will prevent, reduce or ameliorate the perceived susceptibility or severity and *believe* that the perceived benefits outweigh the perceived barriers, they will take action whether it be preventative or curative (Janz *et al*., 2002). In an evaluation of the use of 46 studies using the HBM, Janz and Becker (1984) found that 'perceived barriers' was the most powerful predictor overall, perceived susceptibility was more important for preventive behaviour than sick-role behaviour, and 'perceived benefits' and 'perceived severity' more important for sick-role behaviour than preventive behaviour. Overall, 'perceived severity' was the weakest predictor. The weakness of the HBM is that 'it is limited to accounting for as much of the variance in individuals' health-related behaviours as can be explained by their attitudes and beliefs' (Janz & Becker, 1984: p. 44) and these are not always measured in the same way across surveys, thus making them difficult to compare. Other non-psychological factors, such as socio-economic status and past experience are known to have a strong influence on health seeking behaviour and these are sidelined in the HBM (Kasper, 2000; Ogden, 2004).

Background: Health care providers in a pluralistic setting

Allopathic health care: South Africa's health system consists of a large public sector mostly offering free basic primary health care to about 80% of the population and a well-resourced private sector whose users are either higher-income earners or members of medical insurance schemes (18% of the population) (McIntyre *et al*., 1995; Schneider & Gilson, 1999). The private dispensing doctor (GP), whose charges vary from R60 to R120 (US$10 to US$22: 2004 exchange rate), inclusive of medicines, is not exclusively used by the wealthy or those with medical insurance however; in fact many are low income earners avoiding the overburdened and under-resourced clinics. (Joosub, 2004). Since 1994, the ANC Government has tried to provide universal access to primary health care facilities and free health care for children under six, and for pregnant or breastfeeding mothers (up to 42 days after delivery). Before 1994, user fees at clinics were relatively small with Soweto clinics charging around R8 (US$1.80: 1997 exchange rate) for consultation and treatment. Surgery and hospitalisation cost around R20 (US$4.50) (Simon, 1997). However even these low costs were prohibitive for many and a lifting of this barrier resulted in large increases in patient loads attending curative services, sometimes by as much as 300% (Mathiane, 1994; Schneider *et al.* 1997; Wilkinson *et al.* 2001). This was mostly a reflection of the high level of previous unmet need, given the low levels of health care utilisation found in household surveys before free health care was introduced (Schneider & Gilson, 1999). However an increase in attendance has also been found in the paediatric outpatients at public hospitals, with many having to 'screen' patients (Child Health Unit, 1996) and send them back to the clinic. Bypassing the clinic because of shortages of medicines and an expectation of a better quality of service is not a new

phenomenon, nor is it confined to South Africa (Atkinson *et al*., 1999; Holdsworth *et al.*1993; Mwabu, 1984). Introduction of free primary health care with little prior consultation or preparation has meant that existing staff and infrastructure have had to absorb the impact which has sometimes impacted negatively on quality of Public Sector care and service delivery. Staff shortages, unmanageable workloads and low pay have contributed in turn to low morale and the outflow of staff to the private sectors and abroad (Walker & Gilson, 2004; Lehmann & Sanders, 2002). The attitudes of some health care personnel have created additional barriers, with hostile and judgmental attitudes, particularly of nurses reported by patients (Jewkes *et al*., 1998). On the other hand, nurses also have to put up with abuse from patients and have to answer for any shortages in the clinics (Walker & Gilson, 2004; WHO 2002).

Traditional health care: Urbanisation does not preclude the use of traditional medicines, in fact the Witwatersrand which includes the East Rand, Johannesburg and the West Rand (Williams *et al*., 1997), is South Africa's second largest market for medicinal plants after the markets in KwaZulu-Natal (Williams, 1996). Although today their roles tend to overlap, and the distinction is not that clear, the two main categories of TMPs are the diviners *(izangoma)* and the herbalists *(izinyanga).* As with their roles and fields of expertise, techniques, methods of diagnosis, medicines and fees may also vary from one healer to another. Although the fees which some TMPs charge exceed the average treatment cost at most modern practitioners (Abel-Smith, 1992), 'free' or subsidised treatment is often provided if users cannot afford to pay. Many are also paid an outcome-contingent fee, whereby the bulk of their payment is only received if their patient is cured (Leonard, 2001).

Prophets/faith healers: The *Abathandazeli* or *Abapropheti* have not had as long an history as the traditional healers in South Africa, but the phenomenal growth of the approximate 4000 African Independent Churches (AICs), with a total membership of more than 10 million, bears testament to the popularity of faith healing. The AICs have their roots in the mission churches and consist mostly of the Zion Christian Church (ZCC) (the largest group and most radical group with 11.1%), as well as Apostolic churches including several Pentecostal branches (Statistics South Africa, 2001). The success of the AICs has been attributed to their emphasis on the healing power of religious faith using laying on of the hands, pricking the body, prayer, candlelight, holy water, tea, ashes, and protective strings, ropes or copper wires worn around the body (Bührmann, 1989; Dube, 1989). As with the Sangomas, they can prophetically diagnose the cause of the illness (Anderson, 1992), but unlike the TMPs, they do not use traditional medicines. In some cases however, the Sangoma and faith healer have developed interchangeable roles, particularly for those who believe in the power of the ancestors, although the majority of church members are said to shun ancestral beliefs (Anderson, 1992).

Medicines

Self-medication and home treatments are the most common first line of treatment for illness management, but also the least researched (de Wet, 1998; Van der Geest 1987).

Western over-the-counter medicines: A large range of over-the-counter medicines (OTCs) are available for children under 6 in South Africa and certain ones such as Panado analgesic syrup, Gripe

water for wind and colic and Dutch medicines have achieved high status with mothers. Dutch medicines were introduced into South Africa by early Dutch settlers in the 19th Century and have been in use ever since (de Wet, 1998). Different Dutch medicines are available to treat a variety of ailments ranging from minor kidney and bladder complaints, constipation, to colds and flu. Drops are either added to milk or water or put into the bath. As with several other 'Western' medicines, *Stuips*, *Ditaipi*, or *Druppels* as they are more commonly known have been indigenised into traditional health care practices so that they no longer solely fall under the umbrella of '*Umuthi Wesilungu'* (White people's medicine). Their application has been modified to incorporate African childhood illnesses such as *inyoni* and *ibala*, the protection of infants from bad spirits, being 'suppressed' as a result of supernatural contagions and witchcraft, particularly when taking the child outside the home, healing of the umbilical cord and stomach problems. The popularity of some of the OTC medicines has in part been attributed to the sleep-inducing properties of those which contain alcohol or antihistamines (de Wet, 1998; Bland *et al.* 2004). Each 5ml of Panado for example contains Ethanol, 10% v/v and many of the Dutch medicines contain up to 50% v/v alcohol and in some cases more, e.g. Entressdruppels 74% v/v alcohol; Rooilavental 90% v/v alcohol.

Traditional medicine and home remedies: Traditional medicines *(Umuth*i; plural: *imiti*) have been prescribed over many generations. Forms of treatment include strengthening and cleansing through the use of charms, cuts and incisions, emetics, purgatives, washing, burning of incense, ancestral rituals and sacrifices (Felhaber & Mayeng, 1997). In some cases the use of home remedies for common childhood illness such as coughs, colds, constipation and diarrhoea overlap with traditional medicines, the only difference being where they are obtained and how they are viewed by the caregiver. *Spuits* (enemas) with Sunlight soap are very popular for cleaning out the child's system, but other ingredients may also be used (Bland *et al*., 2004) A selection of other folk remedies has been documented by du Toit (1998). In line with the WHO's Integrated Management of Childhood Illnesses (IMCI) and the importance of 'self-care' in primary health care (Hardon *et al.*, 1994), clinics also encourage caregivers to make their own oral rehydration solutions at home before seeking medical advice for diarrhoea and to give such mixtures as fish oil and vinegar to sooth minor coughs.

Data and Research Methods

A mixed method approach was used to enhance the validity of the results and to gain a deeper understanding about the choices caregivers make.

Qualitative methods: The aim of the qualitative work was to guide the design of the survey questionnaire and describe the context in which the survey took place, thus informing quantitative results. The main themes explored include perceptions of different paradigms of health care and treatment (e.g. access, cost, quality) as well as concepts of illness, characteristics of the disorder and their perception (symptom type and severity) aetiology (natural or supernatural) and expected benefits of treatment (modern vs. traditional). This was intended to give insight into the determinants of choice of health care and the perceived positive and negative aspects of both traditional and Western medicine. In-depth interviews (IDIs) were held with 6 traditional healers, 5 nurses (2 private, 2 public hospitals and 1 public clinic) and a pharmacist. Five mothers who had a lot more information than could be captured in the questionnaire were also invited back

for an IDI from the main survey. Five focus groups with Black mothers of children under 6, were lead by the researcher and an interpreter. Mothers were recruited from the BT20 cohort for 3 groups (n=7; 8; 9) and the Paediatric Dispensary queue at Baragwanath Hospital in Soweto for 2 groups (n=6; 6). Content analysis and coding schemes for the qualitative work were performed manually and using QSR NVivo, based on the research questions to be investigated in the main survey. Themes were 'coded up' from the data and network diagrams were also developed (Denzin & Lincoln, 1994).

Quantitative methods: Because population-based studies are costly, a utilisation-based survey using an interviewer-administered semi-structured questionnaire was used to capture quantitative information on childhood morbidity and health-seeking behaviour in the first 6 years of children's lives. Outcomes investigated in the main survey were differences in characteristics, beliefs, knowledge and actions of caregivers attending different health care providers. As well as permitting a deeper locational analysis of patient characteristics (Good, 1987) utilisation-based surveys try to overcome the under-reporting of the use of traditional medicine by finding out about the behaviour of traditional healers' patients. The aim of the survey was therefore not to measure levels of health-seeking behaviour, but to find out why caregivers follow different patterns of resort. Black caregivers of children under the age of 6 were recruited (n = 206; 66% male and 34% female children) from 1 public clinic in Soweto (n = 50), 2 private clinics (n = 50) in Johannesburg, 2 public hospitals (n = 53) from Johannesburg and Soweto and 2 traditional healers (n = 53) from Johannesburg and Orange Farm, an informal settlement on the outskirts of Johannesburg.
Ethical permission was obtained from Loughborough University and from University of the Witwatersrand (03-11-32). Permission was also obtained to conduct interviews from Dr M. Mazizi, Chief Director of the Johannesburg & West Rand Health Region, CEOs, Matrons, and traditional healers at the various health facilities. Univariate and bivariate data analyses were performed using Stata 8.0 (Stata Co-operation, College Station, Texas, USA). The Pearson chi-squared test was used to test between the four provider types for differences in illness characteristics, caregiver beliefs, family influence, social support, provider characteristics, enabling factors and socio-demographic characteristics of the caregiver and the household they live in. This paper focuses on variables which were found to be statistically significant between facilities ($p < 0.05$). The Fishers exact test was used if the expected value of a cell was less than 5.

Results: Spheres of influence

Some key findings from the focus groups and subsequent in-depth interviews, were used to develop an initial framework of health seeking behaviour in this South African context, which has its basis in other health seeking models (Anderson, 1995; Janz & Becker, 1984) (*v.* Figure 1). Themes and sub-themes were grouped according to motivational schemas or 'spheres of influence' – inner spheres affecting outer ones, either directly or indirectly, although they are by no means exhaustive of the factors known to influence patterns of resort. This model will be used to structure the results of both qualitative and quantitative data.

Caregiver beliefs

Protection, strengthening & illness aetiology in the South African World View:

In the South African world view, surrounding the baby are threats to its health in the form of natural and supernatural causes of illness which need to be prevented or treated. Illnesses caused by witchcraft,

supernatural causes or pollution are said to be “Diseases of the African Peoples” because of how they have been culturally constructed in the South African world view (Ngubane, 1977; Hammonde-Tooke, 1989). Participants identified similar themes to the illness aetiology groupings of Hammonde-Tooke (1989):

1) ‘Pollution’: In some cases, illnesses may be caused by being in a state of ritual impurity which is particularly dangerous for babies who are taken on a long journey, come into contact with ‘ritually impure’ people. Certain places are usually also avoided, such as funerals, and traditionally a vulnerable new-born should not be taken out of the house for a few months. This is because humans and animals are said to leave *umkhondo* or *mohlahla* which are invisible tracks either on the ground or in the air which can be absorbed by others who walk over them or inhale them.

> *“So that he cannot inhale, we Blacks think that there’s something wrong in the air that the child he can inhale and get sick, so the protection [Haarlemensis/Stuips/Doepa] is for that.”* (CG2)

2) Evil spirits and witchcraft: In some cases, the afore-mentioned ‘tracks’ are left on purpose through witchcraft to cause harm to others. *Imimoya emibi* or bad spirits in the air can also cause a child great distress. Certain people such as infants and pregnant women are more vulnerable to these contagions.

> *“I believe when there is witchcraft around, then the child feels it, she can feel something, like evil spirits.”* (FG4)

2) Strong medicines: If a baby has not been properly strengthened and they come into contact with someone who has used strong traditional medicine, or indeed if they themselves do not use traditional medicine and someone else does, they experience what is known as ‘*ukwekha ngesithunzi*’ – to feel or suffer the weight of someone’s overpowering influence (Ngubane, 1977).

> *“There is this thing, like somebody may come to visit, only to find that the person’s body has got strong medicines on it. When that person leaves your place, the child may start to have a problem and end up dying. It is even easy when that kind of a person finds the child being weak.”* (TMP3)

4) God and the Ancestors: The ancestral spirits are held in high esteem and customary rites are usually performed to honour them. If these are not carried out, then the ancestors may show their disapproval through ill-health, misfortune, or even death of a family member.

> *“Usually they talk of, oh I forgot even Kwashiorkor. They will tell you it’s the ancestors, the ancestor’s burns. Because they come in like, they look like they’ve been burnt with boiling water. And when you ask them they’ll tell you it’s the ancestor’s burns. They don’t heal because the ancestors are fighting them for whatever reason.” (Nurse1 - public hospital)*

5) Natural cause: Depending on the circumstances, certain illnesses such as measles, influenza, injury, mumps and whooping cough are believed to occur ‘naturally’ and these are known as ‘*mkhuhlane*’. They may often be treated by home remedies or bio-medicine, without consulting a traditional healer (Gumede, 1990) –

> *“...like normally if those kids are at crèche or whatever it’s really common because one kid gets chicken pox and all, like every year at the day care centre or whatever there’s always that thing.” (FG1)*

In terms of childhood African illnesses, the most widely-known is *inyoni,* which literally means ‘bird’ in Zulu. In a Western world view *inyoni* is associated with serious diarrhoea and dehydration. As Figure 2 shows, symptoms of inyoni might include green stools or a sunken fontanelle and there are several

treatments such as the OTC medicine 'Muthi Wenyoni' (a misnomer as its pharmacological action is an antacid. See de Wet, 1998) and several traditional treatments including *imbizas* (mixtures), *spuits* (enemas) and other rituals. *Ibala* (*capillary naevus*) is another common 'African' illness which is thought to move up the head and can be fatal. Symptoms include weakness of the neck such as the head rolling and a red mark on the back of the head. Some mothers associated this with inyoni. Treatments include the use of *Stuips* and cuts and incisions on certain parts of the body which are then rubbed with a shoe polish-like mixture known as *mohlabelo*. A summary of health problems and their traditional treatments from pregnancy to childhood that respondents identified is summarised in Figure 2.

The causation of illness and subsequent course of action a caregiver takes (traditional *vs.* allopathic) when their child is not well is very much governed by their own background and beliefs –

> *"If you believe this one can help your kids, it can help your kids." (FG4).*

Similarly, if a mother has strong religious beliefs these soon became apparent when talking about her child's health –

> *"You know mine I don't believe in all of this - for Muthi Wenyoni or whatever and a spuit. I pray, God here's your son, take that thing out of him and it will just go out like, you know, like stools out." (FG4).*

In fact one explanation for the non-use of traditional medicine is the influence of Christianity,

> *"You see today we have born again Christians who have dissociated themselves from their traditions and values and live in Western ways. They have abandoned their ways of doing things and today they live like Whites..." (FG2)*

although this does not always preclude the use of traditional medicine.

> *"… I don't have a problem with your belief - you pray to God and at the same time you go to the Gogo [TMP]." (FG4)*

Table 1 contains a summary of the belief-related variables which look at religion, use of traditional medicine and Dutch medicines as well as attitudes towards faith healing and traditional healers.

Use of traditional medicine for child under 6: Whether a caregiver uses traditional medicine or not is very much linked to their belief system.

> *"You know in our church we are just different. In church you will find some people wearing sangoma things. It is because we are different, we have different beliefs, but me, I believe in God and the clinic." (CG3 - PHC)*

Nearly three quarters of caregivers had given or would give traditional medicine to their child if the need arose. Excluding the TMP group this figure is 63.4%. Slightly fewer private clinic caregivers had or would give traditional medicine (58%).

Regardless of whether they had given their child traditional medicine or not (as this may come from any source), caregivers were asked the reasons for taking or not taking their child to a TMP. As can be seen in Table 1, the most common reason for taking a child was for protection as well as 'African' illnesses which Western medicine can't treat. The TMP caregivers however stand out in their affirmation of the efficacy of the treatment and their belief in it. Of those who did not take their child to a TMP, the main reasons were because they didn't believe in it, closely followed by religious reasons. A large proportion of PHC caregivers

who would not take their child to a traditional healer thought that traditional medicine was dangerous and Western medicine was better.

Religion: The PHC and public hospital caregivers were very similar in terms of their religious affiliation, with most either belonging to a Protestant or African Independent church. The TMP caregivers had the highest proportion of Zion Christian Church (ZCC) members and a much lower proportion of Catholics and Protestants compared to the other facilities. The Private clinic on the other hand had the highest proportion of Protestants and Catholics. Everyone at the private clinic ascribed themselves to a church whereas 11-15% of caregivers at the other facilities reported having no religion.
The highest proportion of traditional medicine users compared to non-users are found in the ZCC group (88.9%). This is closely followed by those that don't ascribe themselves to any religion (80%) and the AIC group (75.4%). The highest proportion of non-users compared to users are the Protestant group (41.9%) and the Catholic group (31.8%).

Attitude towards faith healing: Almost a third of caregivers thought that faith healing does work and just over 13% said that it would depend on the illness, belief or the healer –

> *"Some believe in doctors, others they believe in the faith healers." (FG3)*

This leaves 22.8% who did not think it worked and 32% who were not sure. When this is broken down by facility, PHC and TMP caregivers have the highest proportions who believe in faith healing (40% and 39.6% respectively. The private clinic caregivers are the most judicious, with 30% saying that it would depend. The AIC and the ZCC caregivers tend to have stronger beliefs in the power of faith healing (40.4% and 37.8% respectively), although they also have a sizeable proportion who are not sure (35.1% and 24.4%).

> *"Faith healers, they pray and they use water as well. Sometimes you might find that somebody is sick, they will stay praying for her. The sick person must also have a faith in those prayers, and from those prayers and water, that person will feel alive." (TMP1 - Zionist)*

Protestant caregivers tend to have the greatest number (30.7%) of non-believers in faith healing, as well as the largest number of undecided caregivers (33.9%). Nearly a third of caregivers had taken their child to a faith healer, as defined by the word '*abathandazeli*'. The main faith healer users are the TMP (35.8%) and public hospital (32%) caregivers. Of those who had taken their child to a faith healer, 62.1% had had good results and believed that faith healing worked. Only 17.2% had not felt that faith healing worked. This is contrasted with 78.7% of caregivers who did not think faith healing worked, although they had never been. Of those caregivers who use traditional medicine for their child, only 33.3% had taken their child to a faith healer, although 86.2% of those who had gone to a faith healer with their child had/would also used traditional medicine. Caregivers may therefore be split into those who use traditional medicine (100 caregivers); those who use traditional medicine *and* faith healing (50 caregivers); those who use neither (50 caregivers) and those who use faith healing but not traditional medicine (8 caregivers).

Use of Dutch Medicines: 77.6% of caregivers used or had given Dutch medicines to their child – *"And they believe a lot in them! [Dutch medicines]." (Nurse2 – public hospital)*
TMP, PHC and public hospital attendees were very similar in terms of their use, whilst the private clinic attendees had a lower proportion who had used Dutch medicines. The most popular Dutch medicine overall

was Haarlemensis (66%), followed by Stuipdruppels (39.3%), Essens Groen Amara (30.6%), Entressdruppels (29.6%) and Doepa (25.2%).

Table 1 also presents the family and background as well as social network variables available from the survey. The importance of the lay referral system including advice from kin and other acquaintances in a caregiver's social network cannot be underestimated –

> *"So that's why I say at times, like as I was saying I was brought up in a Christian family - we didn't know those things and with my mom she was just worried that this thing is happening and she didn't know what to do until a neighbour came to interfere and say no this is what you supposed do. Because maybe if that person didn't come I would have lost my child." (FG1)*

Social networks & support: Child support in the form of money, sympathy, medicine and advice are invaluable in the health-seeking process and can sometimes influence whether certain treatment occurs or not –

> *"It won't be more than R100. But they [in-laws] will pay; I am not going to pay. They are going to pay because they are the ones who are taking him there [to TMP]." (CG1 – Public hospital)*

Smaller poor households may lack support from kinship networks (Sauerborn *et al.*, 1996) but neighbours and friends can also come in handy -

> *"My neighbour believes in them [TMPs]. And you find that my child gave me trouble the other night and I would go to her for help. So she would say in the morning go to so and so who is a herbalist. Then I would just agree and not go there… I don't tell them because in future I might have another problem, then I would need them for help." (CG3 – public hospital)*

Significantly, those citing least support (financial/emotional/childcare/advice) were the caregivers from the TMPs followed by the PHC caregivers and the public hospital caregivers whilst those citing most support from friends or relatives were the private clinic caregivers. A strong association is present between a caregiver's socio-economic group (very low; low; medium and high) and whether they receive any form of support (e.g. financial/emotional/child care/advice) from friends or relatives. Almost 73% in the lowest SES group report a lot less support from friends or relatives whereas 80% of those in the high SES group have some kind of support from friends or relatives.

> *"Just because this friend is telling you about this person, so you can go there, or I don't like it, my friend says I don't like that place. She's not going to come also." (Nurse3 – Private clinic)*

Family beliefs & decision-making: The mother was the main decision-maker about health care for the PHC and public hospital children. For the private clinic children, decisions were mainly taken by both parents and for TMP children, grandmothers played a key role. In qualitative interviews, the grandmother was quick to be cited as a key decision-maker due to their experience and knowledge – *"Grannies - they know everything." (FG3)* Grandmothers exert a big influence over whether a child goes to a TMP or not, with 93.3% of children whose granny is the decision-maker having gone to a TMP. The same is true for other relatives (82.4%). Both parents making a decision have more of an influence than just the mother making the decision, perhaps signifying the importance of a father's say in the use of traditional medicine. In a patriarchal society, the father and his family have quite a strong say, particularly when it comes to customs and traditional medicine. Problems may arise when families have different beliefs, with mothers

being blamed for any ill that betsets her child if she does not carry out rituals and customs, particularly with regards to the ancestors –

"They [husband's family] are blaming me! They're blaming me because of my beliefs…" (FG4).

Therefore, directly influencing a caregiver's personal beliefs are the beliefs of her own family and the family she has married into as well as advice from friends and neighbours (social networks) –

"For us to know that an inyanga is good we hear it from others, like for example if you come and say to me my child is sick what is wrong with your child? My child has epilepsy or my child has inyoni. And then I would say there is a good traditional healer who helped my child and cured him from inyoni and ibala." (CG5 – public hospital)

Family influence can also reinforce the reliability of an habitual notion (Lindbladh & Lyttkens, 2002) –

"*Our mother used it to us. I trust it." (CG2 – public hospital)*

Caregiver's birthplace & length of residency in Johannesburg/Soweto (background): Place of birth gives an idea of cultural influence because of the stronger links with traditional medicine in KwaZulu Natal and the Eastern Cape –

"You know I've got a friend, a Registered Nurse… She took her son to a Gogo[TMP] in Zola! That's why I want to show you, that even learned and wealthy people do such things, she's from Natal originally." (Nurse3 – Private clinic)

Just over half of the caregivers interviewed were from the Gauteng Province in which Johannesburg and Soweto are situated. The next largest group were those from KwaZulu Natal who made up a fifth of the sample and over half of these were found at the TMPs. Length of residency in an area may give an indication of the strength of support and social networks. The most stable groups (having resided longest in the general area), were those at the PHC, with 70% having lived all their lives in Johannesburg or Soweto. This was followed by 52% of the private clinic caregivers. The TMP and public hospital groups were the least stable, with just over a quarter of each having only lived for less than 5 years in the area. Only a third of TMP caregivers and 40% of public hospital caregivers had lived all their lives in Johannesburg/Soweto. When grouped together, KwaZulu Natal and the Eastern Cape provinces had slightly higher (81%) proportions using traditional medicine than those from other provinces (71.9%).

Characteristics of the child

Child's age: A child's age may influence where a caregiver takes her child because of the fragility of younger babies and their perceived vulnerability –

"You know like more especially if they are still young, I will never take a child to a GP. Say if the child is 0 to 6 months old, so whatever is wrong during that time I would take them to the specialist, not the GP…" (CG4 – private clinic)

Or what medicine they are given –

"I was using the Stuips whilst the child was still young." (CG5 – public hospital)

Overall, children under 6 months made up 26.7% of the sample, 7-12 month olds made up 17.4%, 13-23 month olds made up 23.3% and children 24 months or older made up 32.5% of the sample. Public hospital attendees had the highest proportion of children under 6 months (45.2%). The TMP and PHC caregivers had the highest proportions of children over 24 months (45.2% and 40% respectively).

Child's health since birth and common health problems: Previous experience with the particular child who is ill is also likely to affect treatment. In this sample however, no statistically significant difference was found between providers with regards to their general health since birth. In terms of common health problems, TMP and private clinic children had experienced slightly more gastro-intestinal related problems since birth as a common problem. Chest-related problems, such as coughs and asthma were mostly reported by PHC and private caregivers, whilst the public hospital children had experienced the most varied health problems as highlighted by the 'other' category. 'African' illnesses had been more commonly experienced by TMP and public hospital children.

Characteristics of the illness

Mothers were asked about a child's illness on the day of the interview, symptoms and perceived severity. Table 2 displays data on illness characteristics at the 4 different providers.

Health problem: As can be seen in Table 2, overall in the survey, the main reason for attending the health care providers were for chest and lower respiratory (LRTI) complaints, ear/nose/throat (ENT) and upper respiratory (URTI) complaints and gastro-intestinal related problems. African illness/problems were only seen at the traditional healers. The main reason for private clinic patients was gastro-intestinal related, for PHC patients both ENT/URTI and Chest/LRTI-related problems were the main reason and for public hospital patients, chest/LRTI problems were the main reason.

Symptoms on day of interview: The private clinic and particularly the TMP facilities reported significantly more symptoms related to weakness and dehydration on the day of interview than the other 2 facilities. Symptoms may affect where a child is taken if these are perceived to be markers of a traditional illness (*v.* Figure 2) –

> *"Ja, the inyoni's the gastro. It's just that they have this belief that there's this inyoni, that's why the fontanelle is sunken, so they call it inyoni from the healing prophets or whatever they call them, they say this is inyoni, but it's pure gastro." (Nurse 2 – public hospital)*

Or if they are perceived to be severe.

Perceived severity of illness: If symptoms are perceived to be severe, in general mothers waste no time in seeking the help of a doctor either at a hospital or GP (if finances allow) –

> *"For me, usually like if she is sick badly I don't go to the clinic, I just go to the doctor." (FG5)*

For less serious problems a visit to the pharmacy or clinic suffices –

> *"Even if your child has diarrhoea and you are too lazy to take him to the hospital and it is not bad, you go to the chemist." (FG5)*

For those who can afford private treatment, a distinction however is made between the GP and Paediatrician:

> *"Paediatrician is a child specialist so they are more prone to deal better with whatever would be wrong. If it's like a common cold then I would take them to the GP." (CG4 - private clinic)*

For some less confident/less experienced mothers, some visits to the health care provider may not be warranted –

"… even if you just see a small thing, then you just rush to there. But I think its better to go to them than prescribing anything for your kid - what if it's not right for that thing? … Because if you apply all that without knowing what if it's for the wrong thing and it makes the baby worse or you might even lose the baby." (FG4).

When asked how severe the caregiver thought the child's condition was on that day, over half did not think it was too serious. More serious cases were reported at the public hospital and in particular the PHC clinic. Much lower reporting of severity was found at the private clinic and the TMP. At the PHC and TMP providers the main symptoms considered to be serious for a child's health were the child not being themselves and the child not eating or losing weight. The main serious symptom at the public hospital was fever and the private clinic caregivers considered fever and the child not being themself as the most serious symptoms.

Caregiver & household characteristics

Caregiver characteristics such as age, education, marital status and socio-economic status, parity, household size and composition can easily modify health-seeking behaviour either directly or indirectly and these are summarised in the bottom half of Table 3.

Age: The largest proportion of under 25s was found at the TMPs (34.3%) and the public hospital (30%). The private clinic had the largest proportion of 25-34 year olds (38.2%), followed by the public hospital (25.8%). The over 35s were mostly found at the PHC (34%) and the TMP (24.5%).

Education: The PHC and public hospital caregivers were quite similar in terms of their education. The TMP caregivers had a much lower level of education, with 33.9% having primary level education or below and 0% with higher education. As expected, the private caregivers have a much higher level of education than all groups. Education appears to be a strong predictor of the use of traditional medicine, with 93.8% of caregivers with primary school education or less having given, or would give their child traditional medicine whilst only 57.1% of those with post-secondary education would.

Marital status: The PHC and public hospital caregivers were similar in marital status patterns, with about 40% single, 20% ever-married and approximately 40% living together. The single group was largely composed of TMP caregivers whilst the ever-married group was largely composed of private clinic caregivers (51.6%). Those co-habiting were mostly PHC (30.9%) and public hospital (30.9%) caregivers.

Head of household: The private caregivers reported a high proportion (76%) of their partners as the head of the household, whilst the TMP caregivers reported a high proportion (49%) of relatives who were head of the household. The PHC and public hospital caregivers were not too dissimilar, although PHC users had slightly higher respondent-headed households and public hospital users had slightly higher partner-headed households.

Socio-economic status: By combining all SES-related variables (caregiver education; caregiver employment; income; number of rooms per household member, type of dwelling, experience of household hunger and ownership of assets) a SES score was derived which split caregivers into quartiles of very low,

low, medium and high SES. Overall, the TMP group had the largest proportions of very low and low SES. This was followed by the public hospital caregivers and the PHC group. No private clinic caregiver fell into the very low group and only 3 fell into the low group. In the same way, only 6 TMP caregivers fell into the medium category and no one fell into the high category, whereas 26% of private caregivers fell into the medium category and 68% into the high. The PHC caregivers are only slightly better off than the public hospital caregivers with 34% in the medium category (28.3% for public hospital) and 10% in the highest category (5.7% for public hospital). Proportionally, those on lower household incomes (below R1500 (US$83) per month) are more likely to use traditional medicine (nearly 80%) than those with higher household incomes (over R6000 (US$333) per month) (47.1%).

Household size: The most noticeable difference is that private clinic households tend to have more nuclear families. The TMP and public hospital caregivers on the other hand had the largest numbers of adults, as well as the largest proportion of single-child households. Overall, no significant difference was found in terms of the number of household children or the caregiver's own children, this does not mean that parity is not important for care-seeking as less experienced parents may be less confident in their ability to treat a sick child with home remedies and may be more likely to take the child to a health care provider or to consult family members.

> *"... you can ask them (grandmothers or mother), if you are staying…especially if you've got a first baby, you can ask. But if you've got second baby, third baby then at least you've got an idea." (FG4).*

Enabling factors

Enabling factors are those which facilitate or inhibit the use of health services, such as costs, accessibility and distance. Table 3 also summarises the 'enabling' variables from the survey.

Cost

Where caregiver gets most of Western medicine from: The providers of Western/OTC medicines were fairly evenly split between those that were free (public clinic or hospital – 51.4%) and those where medicine was purchased (chemist or supermarket – 48.5%). The most noticeable differences are the private clinic attendees, 80% of whom buy their medicine or are part of medical aid schemes (92%), and the TMP attendees, 81.1% of whom get their medicine for free. The PHC and public hospital were similar in terms of where they obtained their Western medicine – about 45% from a chemist/supermarket and 55% from a public clinic or hospital.

Is traditional medicine cheap, affordable or expensive?: Nearly a quarter of the total sample thought that traditional medicine was cheap, 21.4% thought it was affordable, 33% thought it was expensive and 20.9% didn't know. Of those who thought traditional medicine was cheap or affordable, the TMP caregivers were the largest proportion. This was followed by private clinic caregivers. Although traditional healers do charge for their services, payment structures are fairly flexible, although this would depend on the healer –

> *"They go to doctors and the doctor would charge them but they don't get helped. But they pay that doctor. But here they get helped but they don't pay. But I sometimes feel sorry for those who don't have money and tell them to pay whenever they have the money." (TMP4)*

Distance: Patients may forgo the extra costs of travelling if the service, including outcome is of high quality – *"They don't even mind how far it is, what they want, is to be helped." (TMP6)*

PHC (76%) and in particular TMP (94.3%) caregivers were at a provider that was nearest to where they lived. Nearly three-quarters of private clinic and public hospital caregivers on the other hand were at the provider they cited as furthest from where they lived. Despite better transport in urban areas, when considering how far away a provider is, transport issues should also be borne in mind. Although most private clinic caregivers don't live close to the private clinic, nearly 40% of them have a family car. For almost 90% of TMP caregivers, walking is the usual mode of transport to their provider and this figure is 56% for PHC and public hospital caregivers and 20% for private clinic caregivers. Just over 40% of PHC, public hospital and private clinic caregivers use public transport as the normal mode of transport to their provider.

Waiting times and opening hours: A further enabling factor is the opening hours of the provider, which also inhibits the numbers seen each day.

> *"Most of the local clinics are not functioning well so everybody comes here. Joburg Gen [public hospital] doesn't work after 4, I'm not sure of the time, so everybody comes here. Local clinics aren't working up until 7. Kos [PHC] used to close at 10, now it doesn't. They're having a go-slow, so I don't know what's going on there." (Nurse1 – public hospital)*

Traditional healers are also more likely to make themselves available, given it is their source of income –

> *"Sometimes you might find that they are sick and its night, and when they go to the clinic, they find it closed, and they decide to come to us, because we don't sleep." (TMP1)*

However one traditional healer reported that healers were not meant to work at night as –

> *"You have to sleep so that you can communicate with your ancestors." (TMP6)*

Staff and drug shortages: Medicine shortages, particularly at clinics were a big concern for caregivers –

> *"Sometimes they tell you that they don't have medicine so what are you going to do? Take the child back home?" (FG1)*

especially for those mothers who didn't have money to go and buy medicine at the chemist or see a GP –

> *"Some people haven't got money to go the special doctor so they go to the clinic and if they don't get helped so what must we do?" (FG1).*

It is also one of the reasons that mothers sometimes bypass primary health care clinics and go straight to the hospital:

> *"And there is no treatment in most cases, they just give Panado and that's it. So that's why they prefer coming to the hospital." (Nurse2 – public hospital)*

or why some might prefer to go to a traditional healers:-

> *"[If she runs out of a medicine]… I will just give her the other muthi to replace umhlonyane. At least giving her something is better than nothing… At times, you will find that they go to the clinic and when they get there they are just told to go back home, because there are no medicines. And then because of those things, they will just come to me for help." (TMP1)*

The free cost of health care may therefore be increased by medicine shortages, time spent going elsewhere for treatment and in some cases having to purchase it –

"Sometimes they write for you down, go to buy this. You buy yourself, because they don't have. OK, if you have the money you can go and buy, but what about those who don't have even that money? They can't buy. They'll just give their child vinegar and fish oil, because there is nothing they can use… so it's too bad, because you don't want to go to the clinic, ay, they will just tell you there is no medicines hey! So we don't like to go to the clinics, we just go because we have to but if we could have our money , we could go to the private clinics." (CG1 – public hospital)

Provider characteristics

Data were collected on who else caregivers had spoken to since the onset of the child's illness. As can be seen in Figure 3, for PHC caregivers, treatment at home is the first main option and the grandmother of the child or mother is consulted slightly more than the father of the child. The second and subsequent main options are that of the public clinic. For public hospital caregivers, similar proportions to that at the PHC followed the home treatment option as their first choice, as well as asking a grandmother and the father of the child. There were however caregivers who accessed the public hospital first. The public hospital caregivers had accessed some form of private treatment (usually a GP) a lot more as second or third treatments than PHC caregivers. Similar proportions of private clinic caregivers use home treatment as their first option. A lot more however access a private provider as their first option. The main difference with TMP caregivers is that they report speaking to more relatives and friends / neighbours than the other groups, with slightly lower cases of home treatment as the first option. Although limited by enabling factors, provider characteristics (perceived and normative) are an important factor in the health-seeking process. This study focused on general perceptions of health care providers and why caregivers might choose one over another.

Public vs. Private

Respondents identified characteristics of private providers which would make them better quality than those in the public sector:

1) Better service:-

"Private sector it's more commercial. The nurse has got to be very sweet, very understanding. Whatever you say she's got to listen to you. If you say you want a glass of water she must go and get it for you. Whereas in the public water you say nurse I need a glass of water I say there's the tap over there. That's the difference. So the private they've got to be nice to you so that they get clients coming." (Nurse1 – public hospital)

2) Better facilities:-

"And the private is clean, extremely clean. It's beautiful, you are served with a tray and what have you, there's a TV for you and all sorts of things…they want all those nice things. Here, there's no time for nice, I tell you go sit there and you wait the queue." (Nurse1 – public hospital)

3) Better quality of care:-

"The treatment and the services it's very good [Private]. Unlike here [Public]. If I can be hospitalized here, the very same day I'll be dead." (FG2)

4) Better medicines:-

"…what I believe happens is because the public clinics they see a lot of people they are cheaper and some of them are free… So what happens is that that medication gets diluted, that does happen, it is

not hearsay…The one from the clinic looks lighter, it looks diluted and the one from the pharmacy or the doctor or wherever it looks like the real Panado that we all know and trust." (CG4 – private clinic)

"Many people said they're good in treatment, but I've never been there. The people say the medicine that they give you is different from the clinic and is expensive and they make you better fast." (CG2 – public hospital)

5) No shortages of medicines:-

"Like today my medicine is not enough and I am from Tladi - I must travel to come here. I have to come back and she has some sores she must have the treatment but there is no treatment. I must go home and come another day." (FG5)

6) More medicines given:-

"You know for the clinics, they just give us Panado when we're sick. Only Panado they know." (FG4)

"So they rather go to the private doctor… to avoid being given Panado for treatment only." (Nurse2 – public hospital JBG)

7) Better equipment:-

"Yes and they've got lots of machines, they can see anything. Like this child they said he got something in the stomach. So they can put him in the machine and the machine can tell what's wrong. But I never been there, those people went there they've got medical aid, they say it is better." (CG2 – public hospital)

8) Reduced waiting times -

"It's expensive but you want to be attended immediately so you must pay." (FG5)

9) More time spent with the patient:-

"Yes we spend a lot of time with the patient here. You bath the patient, you give feeds, give treatment, you check the drip, you are always almost every time with the patient unlike in the Provincial because you run from one patient to another." (Nurse4 – private clinic)

10) Better staff attitudes:-

"There is no proper care there. There is negligence and you get there they will just look at you, whether you child is screaming his lungs out or whatever." (CG4 - PHC)

11) Better examinations (not just asking the mother what is wrong with the child):-

"At the Private Hospital they examine a child. If I say my child has chest coughs they will examine the child and even take the child for X-Rays. So that you also get satisfied and that your child is going to be healed because they don't just listen to what I have to say about the child. They do their own examination." (CG5 – public hospital)

Public hospital vs. PHC

Within the public sector however, hospitals are perceived to be better than the clinics because of –

1) More doctors/specialists:-

"Sometimes there's no Doctors there. There's no Doctors. They will just refer you to one Doctor if there's emergency. But if there is no Doctors, they just give you to the Sisters, and they give you Panado, it doesn't work, then what do you do?" (FG4)

2) Fewer shortages:-

"When you arrive in the clinic, before explaining what's your child's problem, there is no more muthi for cough, nothing, there is no cough mixture. Then they will just recommend to use fish oil and vinegar for coughing." (CG1 – public hospital)

3) Better medicine:-

"If I give a teaspoon of Panado, that fever must be gone within an hour. If it's not, no this Panado is not the same as Bara's [Public hospital] - let me take my child to Bara." (Nurse1 – public hospital)

4) Better equipment:-

"When you ask them they'll always say there's no drip at the clinic, they want a drip and there is drips in the clinic… So they want where they will get this drip immediately. So they know if you come to hospital… definitely you are going to get the drip. It's a sure thing." (Nurse2 – public hospital)

5) Better staff attitudes:-

"They are very rude, especially clinics." (FG2)

6) Better examination:-

"I want the Doctor to check my child thoroughly." (FG4)

7) Better opening times / shorter queues:-

"At the clinics I think that what she has just said it's true. They don't care how sick you are. You have to follow the queue. But here like [Public hospital], they come and check who is sick the most and then they attend to that person…" (FG5)

8) Better attention and more help:-

Then when we arrived at the hospital you could see the urgency of the matter - everybody was running around trying to help and then they put the child in an incubator and a drip, they were also shocked by the size of the needle and they changed everything that was applied to the child at the clinic - changed the drip and put the child into an incubator and the child was starting to be revived." (CG4 – private clinic)

It should be noted however, that the afore-mentioned perceptions are general and the reputations of providers will vary. Caregivers in the survey were asked questions about what the doctors and nurses were like at their usual provider (not specifically on day of interview) and these were grouped into positive and negative responses. Hypothetical questions were also asked to find out what was important to caregivers. This included where the best place to take their child was that they could afford and if money was not a problem (i.e. they won the lottery), as well as what was most important when deciding where to take their child. A summary of these data can be found in Table 4.

Ratings of Doctors and Nurses: As can be seen in Figure 4, in general, all of PHC caregivers and nearly all of TMP caregivers (92.4%) will normally take their child to the clinic to see a doctor. Nearly all of private clinic mothers (98%) will usually take their child to a private clinic to see a doctor. The Public hospital caregivers on the other hand have a large proportion (39.6%) who would normally take their child to the public hospital to see the doctor. Caregivers were also asked what the Doctors were like at the usual provider. Overall, Doctors achieved very positive results in terms of their politeness, manner and helpfulness, with over three quarters of responses being positive, 14% negative and 9.2% mixed. Bearing in mind where most TMP caregivers normally take their child to see a doctor (PHC), their doctors achieved the lowest positive ratings, whilst private clinic caregivers rated 96% of their doctors as positive. Public

hospital caregivers who normally saw a doctor at the PHC gave more negative ratings to their doctor than those public hospital caregivers who normally see a doctor at the hospital. Overall, nurses achieved lower ratings than doctors, with 58.7% of responses being positive, 22.8% being negative, and 18.4% mixed results. Private clinic nurses (as seen by private clinic caregiver results), achieved the highest ratings (86% of ratings were positive). Overall, PHC nurses receive slightly more negative ratings than public hospital nurses or nurses in the private sector, although with more caregivers using PHC clinics, this is more likely to happen. TMP caregivers in particular give PHC nurses low ratings.

Best place to take child (that caregiver can afford): For PHC caregivers, the PHC is the best provider in terms of affordability (74%), followed by the GP (14%) and then the pharmacy (6%) (*v.* Figure 5). The PHC is reported as best in this case mainly because it is free (48.9%). For those who can afford the GP, the main reasons why this is best include staff availability / waiting time (33.3%), the medical process (the way their child is examined / diagnosed and the explanation given) (33.3%) as well as medicine-related reasons (25%). For public hospital caregivers both the PHC (43.4%) and the public hospital (43.4%) are the best, followed by the GP (7.5%). For those who chose the PHC, this is mainly because of cost (66.7%) and because they believe in the treatment and are used to it (18.5%), but for those who chose the public hospital the reasons are more varied – the main ones being staff availability / waiting times (21.4%); medical process (21.4%); and medicine-related issues (17.9%). For private clinic caregivers the private clinic wins hands down (82%), followed by the GP (10%). Private clinics are seen as the best mainly because of staff attitudes (35.4%). Many also chose this because of medicine-related issues (16.9%) (they know they can get medicine, more is usually given and it is stronger than at the public clinics). For 62.2% of TMP caregivers the TMP is the best, followed by the PHC (22.6%) and the public hospital (9.4%). Belief in the treatment, including socio-cultural reasons account for almost 40% of the reasons for choosing the TMP. Other reasons include cost (24.4%) and medicine-related issues (14.6%). Nearly half of those whose preferred choice of provider is the PHC do so because of cost. A smaller proportion (9.4%) chose the public hospital mainly because of medicine-related issues (66.7%). Overall, 92% of private clinic caregivers, 74% of PHC caregivers, 62.2% of TMP caregivers and 43.4% of public hospital caregivers were at the facility they thought was best in terms of affordability.

Best place to take child if caregiver won lottery: If a caregiver won the lottery (i.e. money was not a problem), over three-quarters (77.6%) of all caregivers stated that they would take their child to a private provider. Over half of TMP providers however stated that the traditional healer was still the best place. Figure 6 shows the main reasons for these choices. For PHC caregivers, 96% of whom would choose a private clinic, the main reasons would be because of the staff availability / waiting times and secondly because of the medical process (thorough examination / good diagnosis / aftercare / explanation). This is closely followed by medicine-related issues such as availability and their strength. For public hospital caregivers, the main reasons for choosing a private clinic (88.6%) would be because of medicine-related issues, closely followed by staff availability and waiting times. Another main reason would be because of staff attitudes, care and the effort they put in. For private clinic caregivers, the overriding reason why they would still choose a private provider if they won the lottery is because of staff attitudes, including respect, effort and care. For TMP caregivers, their main choice would be the TMP (52.8%) because of reasons associated with belief in the treatment. This is because they know and trust the TMP and don't really know

about private clinics, as well as not wanting friends to think they are different. Efficacy of treatment in the past was another main reason for choosing a TMP. For those TMP caregivers who would choose a private clinic (41.5%), their main reasons were split between medicine-related issues and the medical process.

What is the most important when deciding <u>where</u> to take a sick child?: As well as being asked why they thought their chosen affordable provider was the best, caregivers were also asked about what came to their minds first when deciding where to take their sick child (*v*. Table 4). For PHC caregivers, cost once again features as a major factor, as do lengthy waiting times and severity of illness. More PHC caregivers report staff attitudes compared to when asked which was best in terms of affordability. For public hospital caregivers, the issue of cost is overtaken by staff attitudes and belief in the treatment. Private caregivers again report staff attitudes, but also waiting time and severity (choosing between public clinic, GP and Paediatrician for example). Cost, belief in the treatment and medicine-related issues are again at the forefront of the TMP caregiver's minds but a larger proportion mention distance than the other caregivers.

Effectiveness or outcome of treatment

The outcome is the final factor in governing whether the caregiver seeks further treatment or not. If a caregiver has had success with a certain treatment or provider in the past, or if she knows of someone who has, she is more likely to use this again –

> *"Iya, it helps. I took my child to the clinic I think 3 times with the same problem until I applied this thing and he was healed. Sunlight, pure Sunlight [soap] Ma, and Colgate." (FG5).*

Similarly, negative outcomes can lead to a caregiver never using a service again. A private caregiver for example, had lost her first child after public clinic treatment and would no longer use their services –

> *"No, because she was my first child. I think that is where I got the inclination of going for the best for my kids. It is from that experience that I had with the clinic…" (CG4 – private clinic)*

The speed a medicine works is also important in the therapeutic process –

> *"No, even the ones that you think they are well-informed, to them medicines should work now! If I give a teaspoon of Panado, that fever must be gone within an hour. If it's not, no this Panado is not the same as Bara's let me take my child to Bara." (Nurse1 – public hospital)*

In some cases the child may not receive the full course of treatment because of the caregiver's expectations about the medicine:-

> *"They are abusing them, terribly. Some we have to turn away, you say go and give the medicine that was given at Lillian Ngoyi [PHC]. You go and give it. If the child isn't better in the 7 days that it's supposed to be better you back to Ngoyi and tell them, this isn't working, they will refer you here." (Nurse1 public hospital)*

And because they have gone elsewhere:-

> *"They will come and tell me that they started at the doctor, saying that they have about two weeks seeing the Western doctor, then I will stop them from using the medicines they have, and start using mine. And if it happens that mine help them, they will have to continue with it. But it doesn't mean that they have to throw away the medicines they have from the doctor, for example if they have the medicines for flu, they must just keep it safe for next time." (TMP3)*

Limitations

The convenience sampling procedure and utilisation-based survey design prevent the generalisability of results to the population from which the sample came and also increase the risk of type II (beta) error occurring because there are only 206 caregivers in the sample and not a wide enough range of providers to capture the variation in quality. Furthermore, not everyone who has an illness or medical condition consults a doctor, neither was it possible to interview caregivers at pharmacies and general practitioners because of the timescale needed to acquire a large enough sample. In order to try and overcome some of the afore-mentioned limitations, combined methods were used in order to better illuminate the complexity of health service utilisation, particularly at a micro level. One of the main debates has been why qualitative studies find some variables important whilst large-scale multivariate studies do not (Mechanic; 1979), therefore using combined methods is essential to help explain this. In this way, constructs that are difficult to measure quantitatively, such as beliefs can at least be examined in more detail.

Discussion

It is clear from previous research on health-seeking, that many factors influence the choices that caregivers make on behalf of their sick child. In the context of the caregivers sampled in this utilisation-based survey, the complexity of these choices is underlined. Although some studies report user fees to be one of the biggest barriers in health care utilisation (Yoder, 1989; De Bethune *et al.*, 1989; Kanji, 1989, Haddad & Fournier, 1995), others, including this survey report that even poor people are willing to pay and even travel further for better quality services (Mariko, 2003; Stock, 1983; Litvack & Bodart, 1993; McIntyre *et al.*, 1998; Statistics South Africa, 2002). With the removal of financial cost barriers, one expects to find greater equity in terms of health service use with demographic (e.g. gender/age) and 'need' variables accounting for most of the variation rather than health beliefs, social structure (e.g. ethnicity) and enabling resources (Andersen, 1995). Private caregivers, for whom financial barriers are less of barrier view staff attitudes (private clinic with best reputation), waiting times and severity (Home *vs.* GP *vs.* paediatrician) as their main selection criteria for health services. PHC caregivers, although limited by financial barriers, also consider waiting times and severity (Home *vs.* Facility / PHC *vs.* Public hospital / PHC *vs.* GP) as well as medicines and staff attitudes (Public *vs.* Private / Local PHC *vs.* Non-local PHC) when deciding where to go. It was interesting to note that cost, although an issue, was not uppermost in their thoughts whereas staff attitudes, 'belief' in the treatment and medicine-related issues (enabling) were. For TMP caregivers, the main factors influencing health-seeking are 'beliefs' (influenced by culture and relatives) (TMP *vs.* allopathic), cost and medicine-related issues (enabling) (TMP *vs.* PHC). Availability and quality of medicines was a common theme in all groups.

Although not at the forefront of all caregivers responses in the quantitative survey, from the qualitative research outlined in this paper, beliefs are central to the care-seeking process in several ways. According to Andersen (1995), the most immediate cause of health services utilization is 'perceived need' as determined by the individual or family members in relation to the type, number or severity of symptoms experienced during a period of time. However, 'beliefs' do not just encompass perceptions of the illness such as causation and severity, but also faith in the treatment or health care provider. 'Belief' variables in the South African context relate much to the medicine being used and its ability to prevent or heal. A caregiver's health 'beliefs' are of course internalised and shaped by socialization and experiences

throughout the lifecourse and are bound by socio-economic and 'enabling factors' perceived as barriers or benefits. As Janz & Becker (1984) suggest in the Health Belief Model, health beliefs may be more important at the beginning of the health-seeking process, with other variables gaining importance further along. Illness beliefs as influenced by a caregiver's cultural background, education and family and partner's influence will determine whether the problem requires traditional or Western treatment. This will depend on whether the symptoms are perceived as having a natural or supernatural cause. Perceptions about the severity of the illness, as determined by experience and knowledge of childhood illnesses as well as the child's general health (a child who is often sick may require even greater care) will determine the subsequent course of action: nothing, home treatment or help from a provider. This particular dimension highlights the importance of fear as a cue to action. If a caregiver decides to treat the child at home, they are bound by knowledge and experience as well as the availability of kin and friends for advice or the availability of the treatment itself. At this point a caregiver's financial situation as well as the accessibility of the treatment or provider will determine patterns of resort. Support networks, positive or negative experiences in the past with a provider as well as their perceived quality (structure, outcome and process) may of course alter the course of action taken. In some cases a cost-benefit analysis may be undertaken, for example, a caregiver might forego transport and distance costs in order to obtain better treatment – whether this be more medication, better medication, a thorough examination, more helpful staff or to see a doctor instead of a nurse. A child's age may also affect the decision process, regardless of any illness. Because young babies are perceived to be more vulnerable to both Western and supernatural causes of illness, specialist treatment may be preferred above general (Paediatrician over a GP or a GP above the PHC). In the same way that a baby is immunised, preventative traditional treatment may be sought soon after birth, if not before.

The uppermost 'branch' of the decision tree is the outcome of the treatment – whether the child gets better or not. Once again, caregiver beliefs determine expectations, how fast the medicine should work for example, or success from previous treatments. This will in turn affect compliance and the health outcome. In some cases, where there is no logical reason (from a Western perspective) why a treatment might help, for example where grey beads, *izinyo lehashe* (horse's tooth), black velvet or copper wire necklaces are worn by the child to help teething, it is 'belief' or faith in the treatment which is said to influence the outcome. This is also true of Western medicines and health care providers. A positive or negative health outcome after treatment will determine whether the child exits the decision tree or whether they re-enter at the beginning. Because symptoms, perceived severity and personal circumstances may have changed, new advice given, and the caregiver will have formed a judgement about the quality of the previous provider, they may not necessarily follow the same pathway when making future health care decisions.

Although our data cannot be generalised to all of Black caregivers in South Africa, they are useful as preliminary evaluations of which aspects of the Behavioural and Health Belief Models might be useful in this context and in explaining utilisation of child health services. Furthermore, it is difficult to identify differences in health-seeking behaviour at an aggregate level, particularly in a pluralistic health-setting such as South Africa for what is arguably an individual and dynamic process (Phillips, 1990). As Mechanic (1979) has suggested, people with similar complaints may behave differently depending on their personal

circumstances; neither do the same people behave consistently at different points in their life with the same symptoms.

'People first' is the slogan of the national norms and standards for Primary Health Care in South Africa (Dept of Health, 2000) which states that "access to decent public services is the rightful expectation of all citizens" and that "communities are encouraged to participated in planning services to improve and optimize service delivery for the benefit of the people who come first." (Dept of Health, 2000 p.9) This is not always easy to follow through in health care planning however (Hardon *et al.*, 1994), and even nurses have felt excluded from policy decisions (Walker & Gilson, 2004). This study may not be representative of the population at large, but it does reinforce what other studies have found in South Africa (Palmer, 1999; Modiba *et al.* 2001; Jewkes *et al.* 1998) as well as neighbouring countries (Atkinson *et al*., 1999; LeBeau, 199?). It is very difficult to provide a health service which satisfies everyone but there was a consensus amongst caregivers at all health facilities that staff attitudes could be improved. Furthermore, there was a perceived need for more nurses and doctors in the public sector which would in turn reduce waiting times. Although it is acknowledged that staff are also on the receiving end of abuse from patients and have tremendous workloads, it is easier to target the 19 Medical Practitioners and 106 Professional nurses than the 100,000 population that they provide for (Day & Gray, 2002) for example. Good management and teamwork are 2 of the key factors in achieving this (Couper & Hugo, 2002) and in terms of the Andersen Behavioural Model, staff attitudes can therefore be seen as highly mutable. For TMP caregivers a particularly salient issue is that of the integration of traditional and Western medicine, if not in the organisational sense, at least in terms of clinic and hospital staff showing more respect towards traditional beliefs. Health systems are culturally sensitive and traditional beliefs and practices are usually dismissed as ignorance instead of being incorporated into health education, since not all traditional treatments are harmful. Managers therefore should reinforce the basic standards of 'People First' that "Citizens should be treated with courtesy and consideration" and "if the promised standard is not delivered they should be offered an apology, an explanation and an effective remedy, when complaints are made, citizens should receive a sympathetic positive response". (Dept of Health, 2000 p.9)

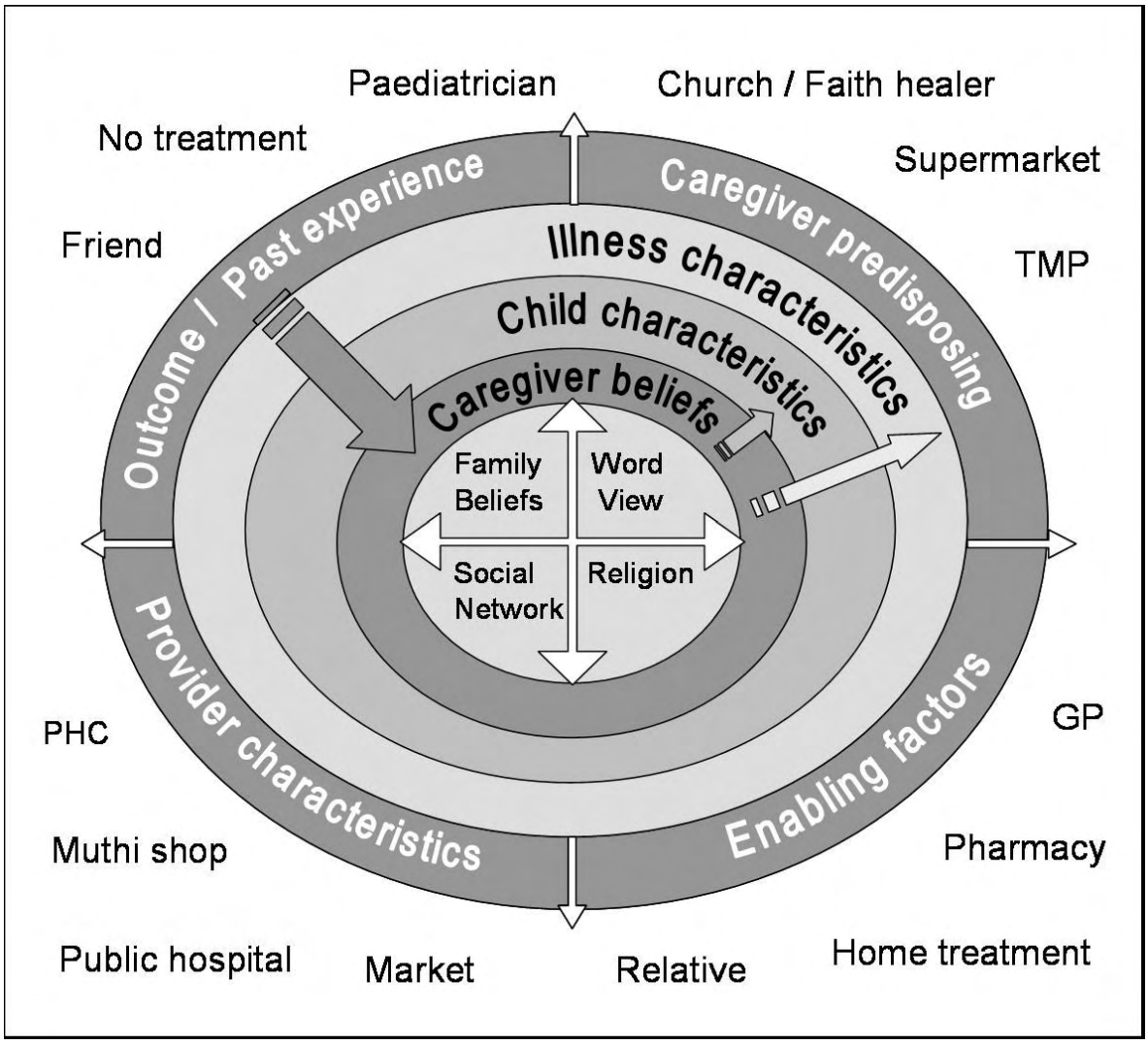


Figure 1: Motivational schemas / spheres of influence (Adapted from Andersen's Behavioural model & the Health Belief Model

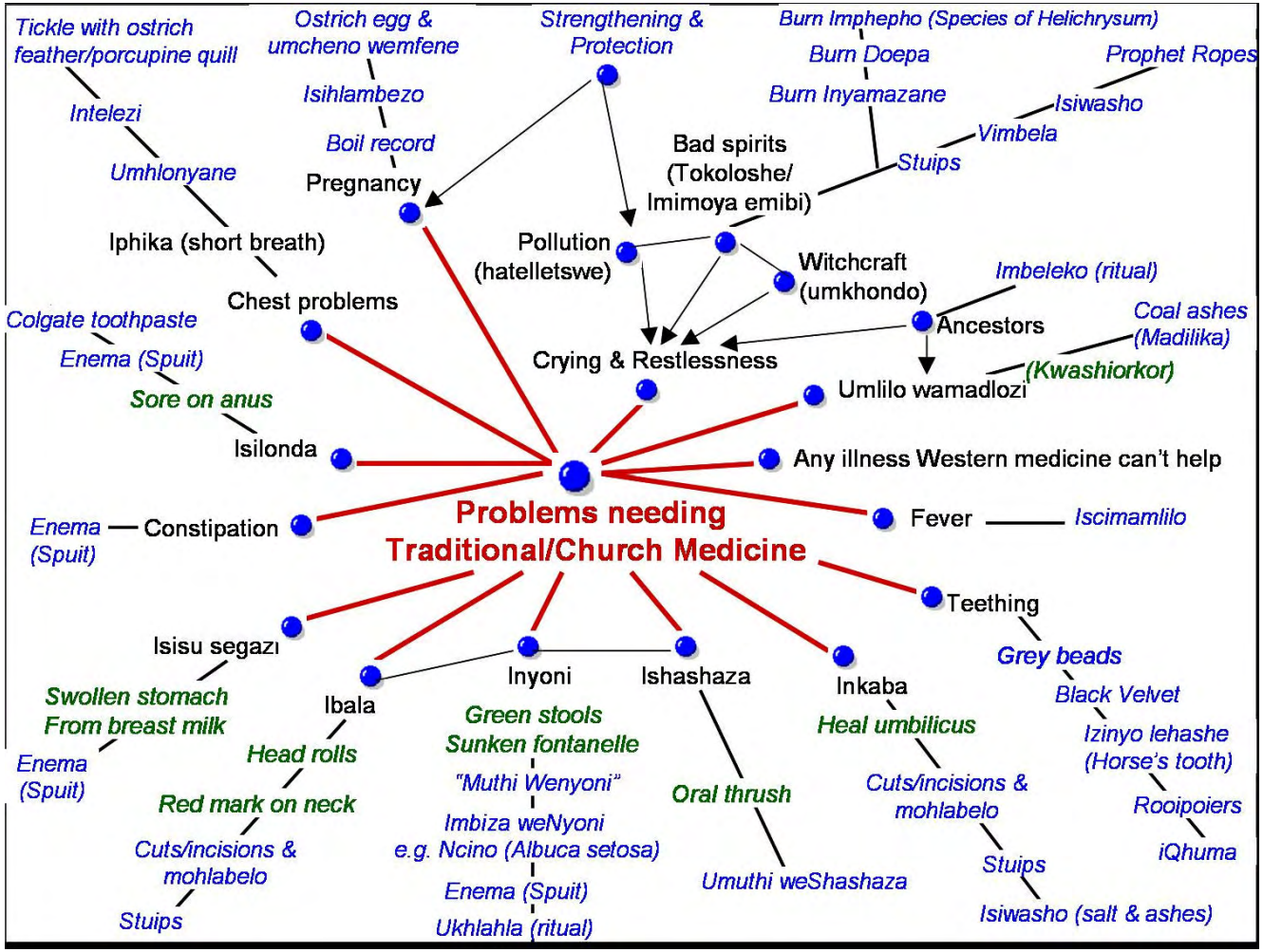


Figure 2: From foetus to age 6: problems needing traditional treatment

Table 1: Summary of belief-related variables & background / family influence variables

	Variable	Category	Facility				Total (n=206) n (%)	χ^2 P value*
			PHC (n=50) n (%)	Pub Hos (n=53) n (%)	Pvt clinic (n=50) n (%)	TMP (n=53) n (%)		
Belief-related variables	**Religion**	Catholic	5 (10)	5 (9.4)	11 (22)	1 (1.9)	22 (10.7)	0.001
		ZCC	9 (18)	10 (18.9)	6 (12)	20 (37.7)	45 (21.8)	
		AIC	15 (30)	16 (30.2)	11 (22)	15 (28.3)	57 (27.7)	
		Protestant	15 (30)	16 (30.2)	22 (44)	9 (16.9)	62 (30.1)	
		None	6 (12)	6 (11.3)	0 (0)	8 (15.1)	20 (9.7)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Use traditional medicine for child?	Has given / would if need arose	34 (68)	34 (64.2)	29 (58)	53 (100)	150 (72.8)	0.000
		Has never/ would never give	16 (32)	19 (35.9)	21 (42)	0 (0)	56 (27.2)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Why do you take your child to a TMP?	Protection/supernatural/African	21 (30.9)	14 (20.6)	17 (25)	16 (23.5)	68 (100)	0.379
		Efficacy/WM can't help/Belief	3 (8.6)	3 (8.6)	0 (0)	29 (82.9)	35 (100)	0.000
		Background/Relative	1 (4.3)	9 (39.1)	4 (17.4)	9 (39.1)	23 (100)	0.039
	Why do you not take your child to a TMP?	Doesn't believe	7 (21.9)	13 (40.6)	12 (37.5)	0 (0)	32 (100)	0.001
		Religion	4 (17.4)	10 (43.5)	9 (39.1)	0 (0)	23 (100)	0.005
		Background/Family	4 (33.3)	2 (16.7)	6 (50)	0 (0)	12 (100)	0.032*
		TM dangerous/WM better	9 (64.3)	2 (14.3)	3 (21.4)	0 (0)	14 (100)	0.002*
	Does faith healing work?	Yes	20 (40)	15 (28.3)	10 (20)	21 (39.6)	66 (32)	0.009
		No	10 (20)	15 (28.3)	9 (18)	13 (24.5)	47 (22.8)	
		Depends on illness/belief/healer	2 (4)	7 (13.2)	15 (30)	3 (5.6)	27 (13.1)	
		Not sure	18 (36)	16 (30.2)	16 (32)	16 (30.2)	66 (32)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Use Dutch medicines for child?	Yes	43 (86)	43 (81.1)	30 (60)	44 (83)	160 (77.7)	0.007
		No	7 (14)	10 (18.9)	20 (40)	9 (16.9)	46 (22.3)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
Background / family influence	**Who decides what to do when child is not well?**	Mother of child	25 (50)	27 (50.9)	18 (36)	17 (32.1)	87 (42.2)	0.000
		Both parents	17 (34)	15 (28.3)	30 (60)	10 (18.9)	72 (34.9)	
		Grandmother	4 (8)	6 (11.3)	1 (2)	19 (35.9)	30 (14.6)	
		Other relative	4 (8)	5 (9.4)	1 (2)	7 (13.2)	17 (8.3)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Birthplace of caregiver	Gauteng	35 (70)	21 (39.6)	29 (58)	20 (37.7)	105 (50.9)	0.000
		KZN	4 (8)	11 (20.8)	4 (8)	21 (39.6)	40 (19.4)	
		Eastern Cape	5 (10)	5 (9.4)	5 (10)	3 (5.7)	18 (8.7)	
		Other	6 (12)	16 (30.2)	12 (24)	9 (16.9)	43 (20.9)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Length of residency in Johannesburg / Soweto	0 – 5 yrs	5 (10)	15 (28.3)	6 (12)	14 (26.4)	40 (19.4)	0.012
		5 – 10 yrs	3 (6)	11 (20.8)	11 (22)	12 (22.6)	37 (17.9)	
		10+ yrs	7 (14)	6 (11.3)	7 (14)	9 (16.9)	29 (14.1)	
		All my life	35 (70)	21 (39.6)	26 (52)	18 (33.9)	100 (48.5)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Support from friends or relatives	No support	29 (58)	29 (54.7)	15 (30)	34 (64.2)	107 (51.9)	0.003
		Has support	21 (42)	24 (45.3)	35 (70)	19 (35.9)	99 (48.1)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	

*** Fishers Exact Test if expected cell < 5**

Table 2: Summary of illness-related and child-related variables

	Variable	Category	Facility				Total (n=206) n (%)	χ^2 P value*
			PHC (n=50) n (%)	Pub Hos (n=53) n (%)	Pvt clinic (n=50) n (%)	TMP (n=53) n (%)		
Illness-realted variables	Reason for being at provider	ENT/URTI-related	39 (45.8)	22 (25.8)	9 (10.5)	15 (17.6)	85 (100)	0.000
		Chest/LRTI-related	39 (37.5)	27 (25.9)	25 (24)	13 (12.5)	104 (100)	0.000
		Gastro-intestinal-related	11 (14.2)	19 (24.6)	33 (42.8)	14 (18.1)	77 (100)	0.000
		Rash/skin-related	4 (21)	10 (52.6)	2 (10.5)	3 (15.7)	19 (100)	0.056*
		African illness/problem	0 (0)	0 (0)	0 (0)	22 (100)	22 (100)	0.000
		Other combined	7 (21.8)	19 (59.3)	4 (12.5)	2 (6.2)	32 (100)	0.000
	Symptoms	Chest/LRTI symptoms	42 (37.5)	30 (26.7)	26 (23.2)	14 (12.5)	112 (100)	0.000
		URTI/ENT symptoms	38 (40.8)	22 (23.6)	17 (18.2)	16 (17.2)	93 (100)	0.000
		Digestive system/Gastro	25 (21.7)	26 (22.6)	36 (31.3)	28 (24.3)	115 (100)	0.028
		Weak/dehydrated symptoms	3 (8.5)	3 (8.5)	13 (37.1)	16 (45.7)	35 (100)	0.000
		Rash/sore/red mark symptoms	5 (18.5)	9 (33.3)	2 (7.4)	11 (40.7)	27 (100)	0.053
		Other combined	9 (26.4)	21 (61.7)	4 (11.7)	0 (0)	34 (100)	0.000
	Severity today	Not serious	10 (20)	16 (30.2)	35 (70)	45 (84.9)	106 (51.5)	0.000
		Quite serious	23 (46)	22 (41.5)	9 (18)	5 (9.4)	59 (28.6)	
		Very serious	17 (34)	15 (28.3)	6 (12)	3 (5.7)	41 (19.9)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Symptoms considered to be serious	Gastro-intestinal	8 (17)	16 (34)	13 (27.6)	10 (21.2)	47 (100)	0.294
		Fever	15 (21.7)	20 (28.9)	22 (31.8)	12 (17.3)	69 (100)	0.112
		Chest/Coughing/Breathing	1 (5.2)	9 (47.3)	8 (42.1)	1 (5.2)	19 (100)	0.003*
		Not themselves	28 (30.1)	14 (15)	20 (21.5)	31 (33.3)	93 (100)	0.003
		Not eating/losing weight	32 (35.9)	14 (15.7)	13 (14.6)	30 (33.7)	89 (100)	0.000
Child-related	Child's age	< 6 months	8 (16)	24 (45.3)	11 (22)	12 (22.6)	55 (26.7)	0.012
		7 – 12 months	10 (20)	9 (16.9)	11 (22)	6 (11.3)	36 (17.5)	
		13 – 23 months	12 (24)	9 (16.9)	16 (32)	11 (20.8)	48 (23.3)	
		24+ months	20 (40)	11 (20.8)	12 (24)	24 (45.3)	67 (32.5)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Common health problems since birth	Gastro-intestinal related	27 (23.2)	22 (18.9)	34 (29.3)	33 (28.4)	116 (100)	0.039
		ENT-related	25 (23.3)	29 (27.1)	24 (22.4)	29 (27.1)	107 (100)	0.870
		Chest-related	34 (26.9)	26 (20.6)	37 (29.3)	29 (23)	126 (100)	0.034
		Fever	15 (25.4)	15 (25.4)	12 (20.3)	17 (28.8)	59 (100)	0.830
		Other	12 (21.8)	22 (40)	9 (16.3)	12 (21.8)	55 (100)	0.037
		African illnesses	1 (5.5)	7 (38.8)	1 (5.5)	9 (50)	18 (100)	0.007*

*** Fishers Exact Test if expected cell < 5**

Table 3: Summary of enabling variables (cost & distance) & caregiver / household-related variables

	Variable	Category	Facility				Total (n=206)	χ^2 P value*
			PHC (n=50)	Pub Hos (n=53)	Pvt clinic (n=50)	TMP (n=53)		
			n (%)	n (%)	n (%)	n (%)	n (%)	
Enabling variables (cost & distance)	**Where do you normally get Western medicine from?**	Chemist/supermarket	23 (46)	23 (43.4)	44 (88)	10 (18.9)	100 (48.5)	
		Clinic/Hospital	27 (54)	30 (56.6)	6 (12)	43 (81.1)	106 (51.5)	0.000
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Where do you normally get traditional medicine from?	TMP	18 (17.8)	19 (18.8)	13 (12.9)	51 (50.5)	101 (100)	0.000
		Church/Faith healer	4 (17.4)	8 (34.8)	7 (30.4)	4 (17.4)	23 (100)	0.487
		Muthi shop	3 (33.3)	3 (33.3)	3 (33.3)	0 (0)	9 (100)	0.296*
		Relative/Garden/Bush	22 (28.9)	25 (32.9)	26 (34.2)	3 (3.9)	76 (100)	0.000
	Cost of traditional medicine	Cheap	10 (20)	7 (13.2)	16 (32)	18 (33.9)	51 (24.8)	
		Affordable	6 (12)	5 (9.4)	12 (24)	21 (39.6)	44 (21.4)	
		Expensive	24 (48)	22 (41.5)	8 (16)	14 (26.4)	68 (33)	0.000
		Don't know	10 (20)	19 (35.9)	14 (28)	0 (0)	43 (20.9)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Current facility near or far?	Near	38 (76)	15 (28.3)	13 (26)	50 (94.3)	116 (56.3)	
		Far	12 (24)	38 (71.7)	37 (74)	3 (5.7)	90 (43.7)	0.000
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Normal mode of travel to provider	Walk	28 (56)	30 (56.6)	10 (20)	47 (88.7)	115 (55.8)	
		Family car	1 (2)	0 (0)	19 (38)	0 (0)	20 (9.7)	0.000
		Public transport	21 (42)	23 (43.4)	21 (42)	6 (11.3)	71 (34.5)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
Caregiver / household-related variables	**Caregiver age**	<25	18 (36)	21 (39.6)	7 (14)	24 (45.3)	70 (33.9)	
		25-34	16 (32)	23 (43.4)	34 (68)	16 (30.2)	89 (43.2)	0.001
		35+	16 (32)	9 (16.9)	9 (18)	13 (24.5)	47 (22.8)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Caregiver education	None -> complete primary	5 (10)	8 (15.1)	1 (2)	18 (33.9)	32 (15.5)	
		Some secondary	23 (46)	23 (43.4)	3 (6)	25 (47.2)	74 (35.9)	
		Complete secondary	19 (38)	17 (32.1)	12 (24)	10 (18.9)	58 (28.2)	0.000
		Higher	3 (6)	5 (9.4)	34 (68)	0 (0)	42 (20.4)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Marital status	Single	20 (40)	21 (39.6)	7 (14)	28 (52.8)	76 (36.9)	
		Ever-married	9 (18)	11 (20.8)	32 (64)	10 (18.9)	62 (30.1)	0.000
		Living together	21 (42)	21 (39.6)	11 (22)	15 (28.3)	68 (33)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Head of Household	Respondent	12 (24)	9 (16.9)	6 (12)	5 (9.4)	32 (15.5)	
		Partner of respondent	20 (40)	26 (49.1)	38 (76)	22 (41.5)	106 (51.4)	0.001
		Relative	18 (36)	18 (33.9)	6 (12)	26 (49.1)	68 (33)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	SES (ownership of consumer durables / frequency of hunger & house variables)	Very low	12 (24)	14 (26.4)	0 (0)	21 (39.6)	47 (22.8)	
		Low	16 (32)	21 (39.6)	3 (6)	26 (49.1)	66 (32)	
		Medium	17 (34)	15 (28.3)	13 (26)	6 (11.3)	51 (24.8)	0.000
		High	5 (10)	3 (5.7)	34 (68)	0 (0)	42 (20.4)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
	Number of household adults (aged > 16 years)	1	4 (8)	8 (15.1)	3 (6)	3 (5.7)	18 (8.7)	
		2	28 (56)	21 (39.6)	33 (66)	25 (47.2)	107 (51.9)	
		3	4 (8)	6 (11.3)	8 (16)	13 (24.5)	31 (15.1)	0.033
		4+	14 (28)	18 (33.9)	6 (12)	12 (22.6)	50 (24.3)	
		Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	

*** Fishers Exact Test if expected cell < 5**

Table 4: Summary of choice-related variables including provider characteristics

Variable	Category	Facility				Total (n=206) n (%)	χ^2 P value*
		PHC (n=50) n (%)	Pub Hos (n=53) n (%)	Pvt clinic (n=50) n (%)	TMP (n=53) n (%)		
Reason for choice of provider today / type of visit	Staff-related	2 (12.5)	0 (0)	14 (87.5)	0 (0)	16 (100)	0.000*
	Efficacy/Ability to help	3 (11.1)	0 (0)	3 (11.1)	21 (77.7)	27 (100)	0.000
	Recommended	1 (6.6)	0 (0)	2 (13.3)	12 (80)	15 (100)	0.000*
	Referred	0 (0)	19 (50)	19 (50)	0 (0)	38 (100)	0.000
	Cost	26 (89.6)	1 (3.4)	0 (0)	2 (6.9)	29 (100)	0.000
	Check-up/Collect results	1 (4.2)	23 (95.8)	0 (0)	0 (0)	24 (100)	0.000
	Enabling factors: access/distance/available	2 (8.7)	3 (13)	6 (26)	12 (52.1)	23 (100)	0.010
Best if won lottery	PHC	4 (8)	1 (1.9)	1 (2)	1 (1.9)	7 (3.4)	
	Public hospital	3 (6)	4 (7.6)	1 (2)	2 (3.8)	10 (4.9)	
	Private clinic	43 (86)	47 (88.7)	48 (96)	22 (41.5)	160 (77.7)	0.000
	TMP	0 (0)	1 (1.9)	0 (0)	28 (52.8)	29 (14.1)	
	Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
Best in terms of affordability	PHC	37 (74)	23 (43.4)	2 (4)	12 (22.6)	74 (35.9)	
	Public hospital	1 (2)	23 (43.4)	1 (2)	5 (9.4)	30 (14.6)	
	Private clinic	1 (2)	1 (1.9)	41 (82)	0 (0)	43 (20.9)	
	GP	7 (14)	4 (7.6)	5 (10)	1 (1.9)	17 (8.3)	0.000
	Pharmacy	3 (6)	2 (3.8)	1 (2)	2 (3.8)	8 (3.9)	
	TMP	1 (2)	0 (0)	0 (0)	33 (62.3)	34 (16.5)	
	Total	50 (100)	53 (100)	50 (100)	53 (100)	206 (100)	
Most important factor when deciding where to take child	Cost	17 (40.4)	8 (19)	3 (7.1)	14 (33.3)	42 (100)	0.003
	Belief in treatment	7 (17.5)	13 (32.5)	5 (12.5)	15 (37.5)	40 (100)	0.062
	Waiting time & severity	13 (29.5)	7 (15.9)	20 (45.4)	4 (9)	44 (100)	0.000
	Medicine-related issues	11 (23.9)	10 (21.7)	14 (30.4)	11 (23.9)	46 (100)	0.712
	Staff attitudes/care	10 (20)	13 (26)	22 (44)	5 (10)	50 (100)	0.001
	Medical process	6 (35.2)	8 (47)	1 (5.8)	2 (11.7)	17 (100)	0.044*
	Seeing a doctor/specialist	1 (11.1)	1 (11.1)	5 (55.5)	2 (22.2)	9 (100)	0.242*
	Distance	1 (7.6)	4 (30.7)	1 (7.6)	7 (53.8)	13 (100)	0.070*

*** Fishers Exact Test if expected cell < 5**

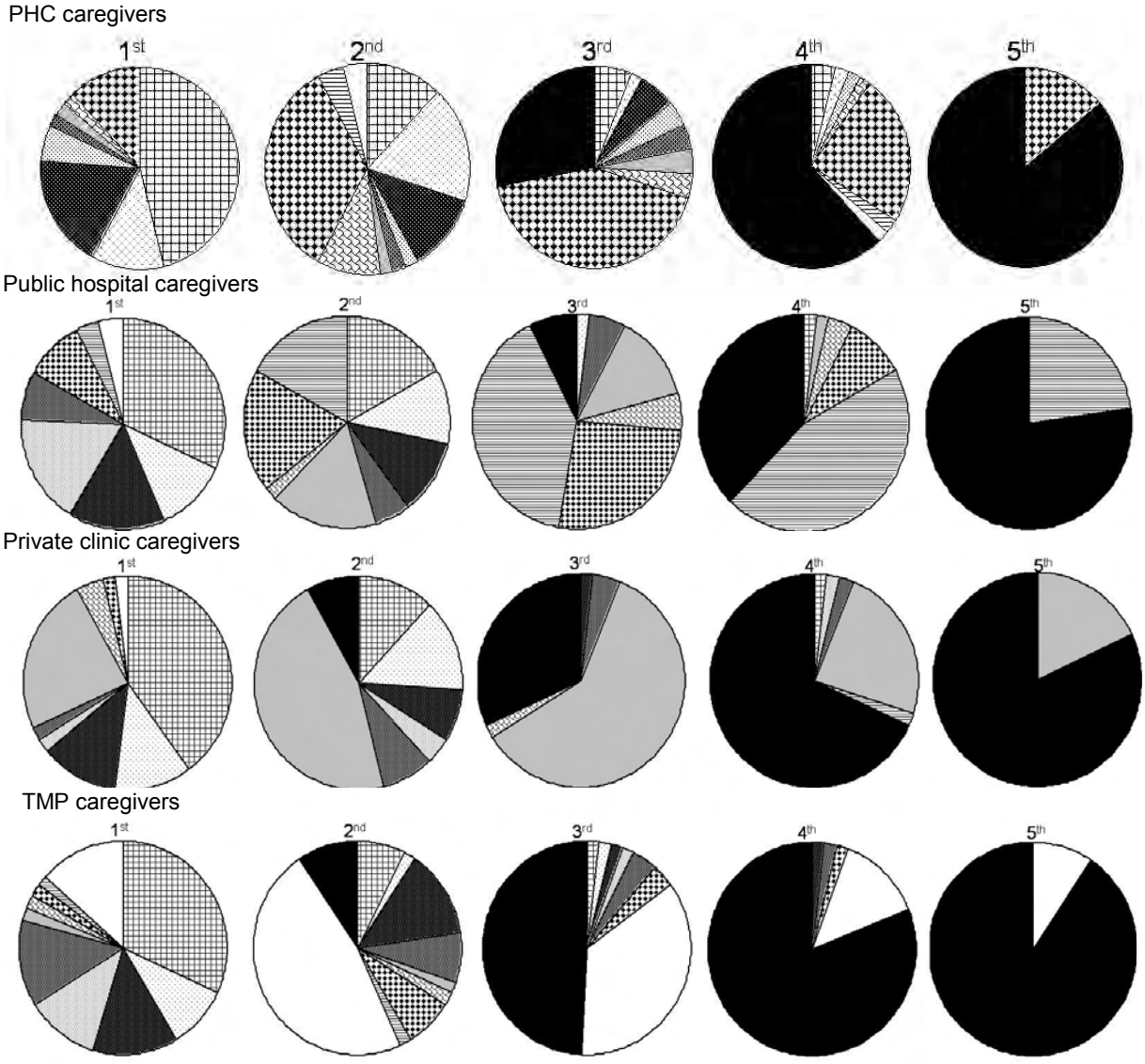
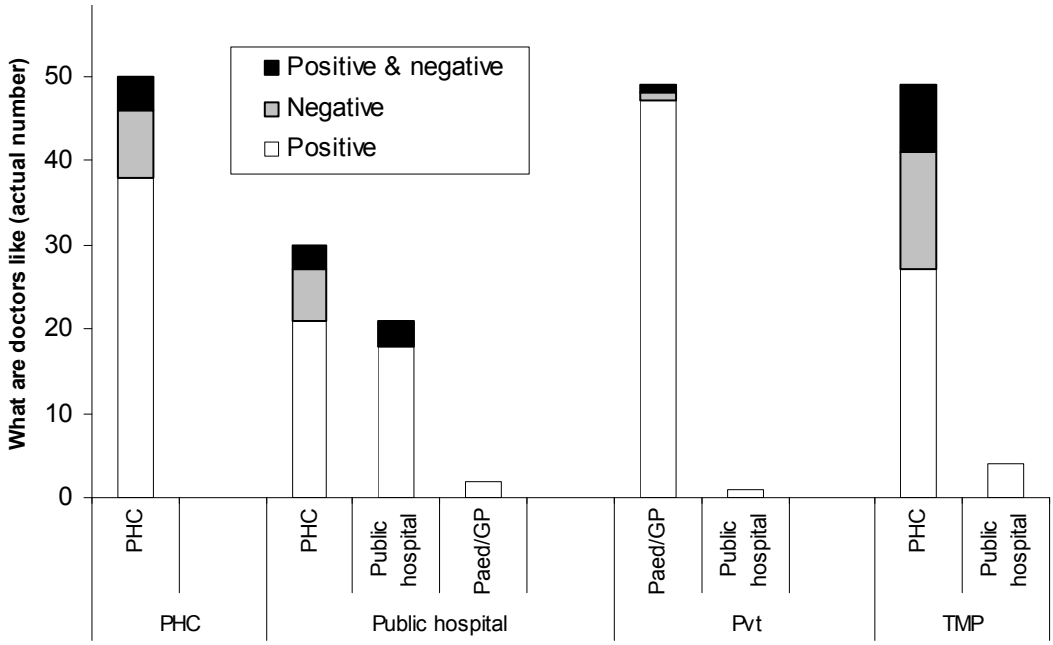


Figure 3: Who was advice or treatment sought from?



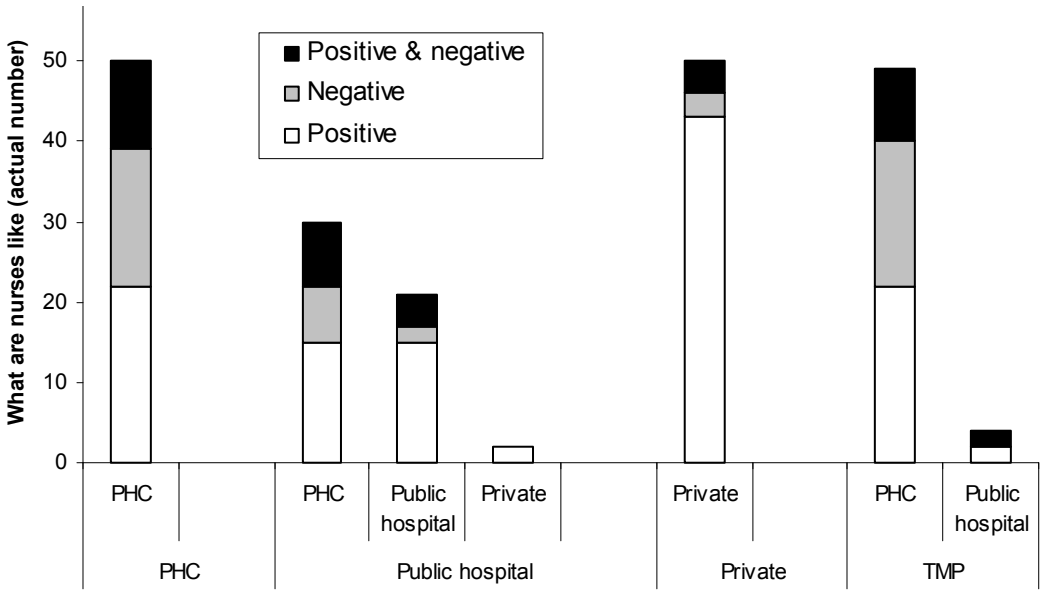


Figure 4: Caregiver ratings for usual doctors and nurse seen

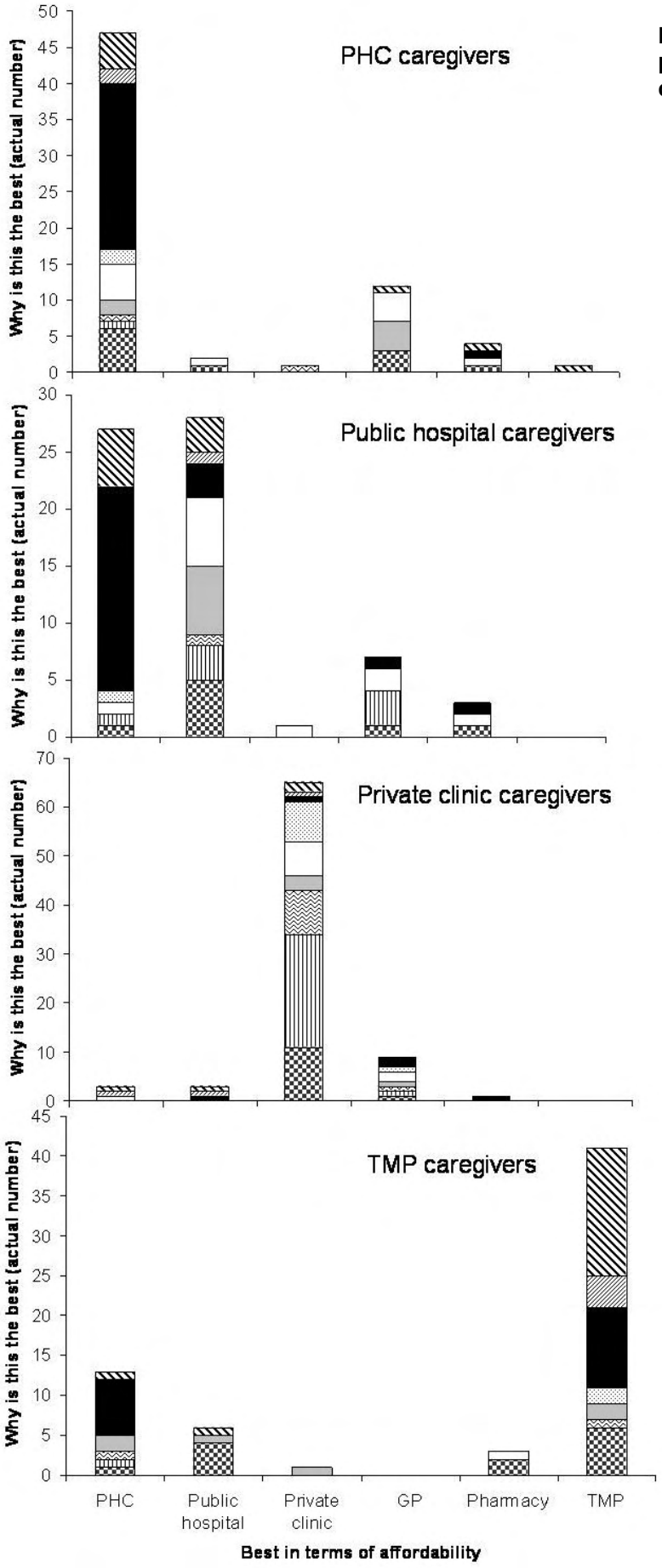


Figure 5: Where is the best place to take child (that you can afford) & why?

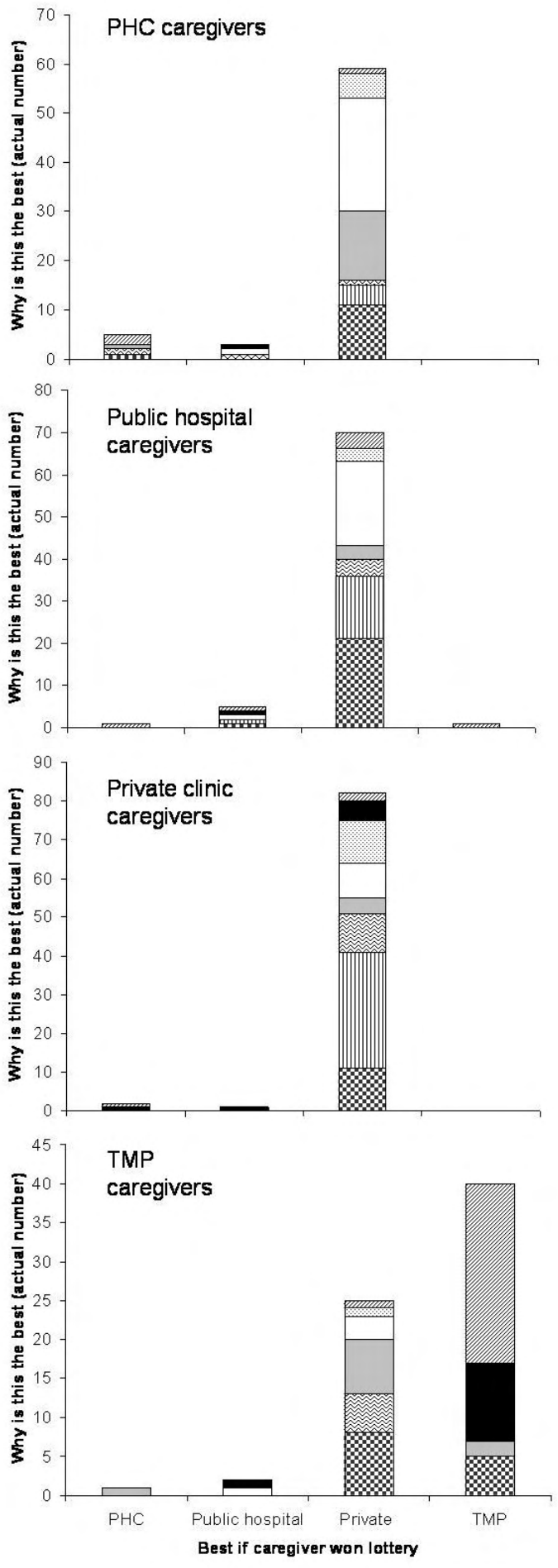


Figure 6: Where is the best place to take child if caregiver won the lottery & why?

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