Research Review New Series 15.2 (1999) 13-33

OVERCOMING CULTURAL BARRIERS TO PATIENT CARE FOR ACUTE RESPIRATORY INFECTIONS IN YOUNG CHILDREN[1]

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Introduction

The paper is about Acute Respiratory Infections (ARI), which, according to WHO definition, are acute infections of the ear, nose, throat, larynx, trachea, bronchi, bronchioles or lungs.[2] Statistics from WHO and national health data show that acute respiratory illnesses, particularly pneumonia, rank among the top killers of children in developing countries, even today. The paper is based to a large extent on ethnographic studies conducted in several rural communities in Ghana between 1993-95 with WHO financial support.[3] The study communities were selected from Duayaw Nkwanta and neighbouring villages in the Tano District of the Brong Ahafo Region (November to December, 1993), Jirapa District in the Upper West (September to November 1993) and Kpandu District in the Volta Region (August to September, 1994).[4] The researcher spent between five and seven weeks at each of these sites doing focused ethnographic studies of ARIs.

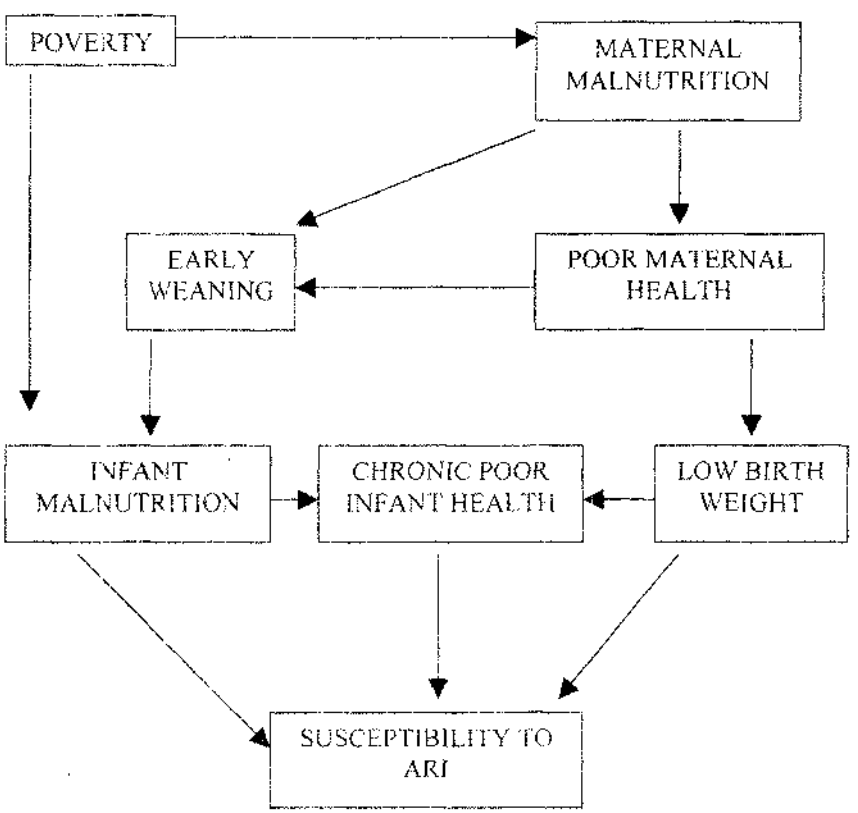
Given that effective treatment by the use of antibiotics exists for most cases of acute respiratory infection, it seems especially regrettable that preventable deaths should recur. What is the problem? It has been argued that care-takers' (mothers in particular) recognition of the danger signs of pneumonia diseases is suspect or they often fail to bring the sick child to a bio-medical health provider or delay in doing so until it becomes too late.

Accordingly, this paper is about the barriers to patient care for children presenting ARI conditions which are not only multiple but complex in nature. Overcoming these barriers requires action at different levels and on several fronts, involving not only preemptive action such as health education for parents and improving communication with care-takers of children and their rural communities but also long term strategies at the national level which emphasise not only child health but also maternal health and welfare. Among the key players or stakeholders then would be parents, especially mothers, the family, the community, healers (bio-medical professionals, traditional healers), drug sellers, local opinion leaders and national authorities and NGOs.

Interviews were held with mothers in their homes,[5] and at the hospitals as they brought children suffering from ARIs for treatment.[6] They recalled past ARI episodes experienced by their children within the past month or less.[7] Some mothers viewed video clips of children to test their ability to recognise, rate and entitle fast breathing and pneumonia signs such as chest in-drawing. In addition, in-depth interviews were held with key informants.[8] The treatment behaviour of drug sellers was observed through confederates presenting vignettes and requesting help.

The findings from these studies and the close observation of mothers' behaviours and those of others in these communities would suggest that the main barriers to ARI health care or any children's health problems in Ghana for that matter can be categorised as follows: knowledge and perceptions, economic and financial issues, social and cultural norms and values, behaviour and attitudes. However, as in all other parts of the developing world, where ARIs still continue to be a menace, remoter issues which are no less important, such as the role of the ecology and physical environment, the political issues of equity and gender empowerment and maternal access to education cannot be ignored.

Figure 1: Some ARI Risk Factors for Sub-Saharan Infants



A global appreciation of the problems is required if we are to propose meaningful modalities for overcoming these obstacles to patient care in Africa. As Caldwell (1971:9) remarked, "Where the ultimate task is clear ...the technical task finds guidance towards its proper definition. Where no larger integrative purpose is evident, administrators and technicians conceive policy in terms of their own immediate responsibilities..." So is it with health.

The Role of Poverty in ARI's Outcomes in Children

Though the incidence of upper respiratory infections is similar between developed and developing regions of the world, lower respiratory infections are estimated to be 10 to 50 times greater in the developing world and more deadly (Nichter 1994:319). ARIs seem to be more common in the urban areas but more deadly in the rural areas (Pio 1993; Wafula et al. 1990). These patterns of morbidity and mortality draw attention to underlying differences between industrialised and third world settings as well as between rural and urban environments. Poverty is an important factor (Reyes et al. 1997: 218).

Starting from poverty, which is prevalent in many parts of rural Africa, where incomes are much lower and which is further exacerbated by urban-rural inequalities, it is possible to trace a chain of risk factors for children's health. Rural African communities remain, by and large, small scale subsistence agricultural economies where whatever quasi surpluses are produced may be sold on the market for low prices to enable cash needs to be met. While the prices of rural food products fluctuate widely between harvest season (when traders buy cheaply) and the end of the planting season (when food is scarce) no schemes exist for protecting rural people or providing food security. Though there are exceptions, women especially suffer the brunt of poverty. In the rural areas they operate more in the subsistence sector; they have less access to formal education and to marketable skills, to credit, and to land. Social norms may also exclude them from certain productive occupations. Pregnancy, childbirth and child-nursing take their toll on their health and the demands associated leave less time for independent income generating activities. As wives and mothers they depend on husbands, some of whom have been compelled to migrate.

The impact of poverty on health of the child is considerable. Poverty contributes to maternal and child malnutrition and this undermines health. Maternal malnutrition and poor health may contribute to early or premature weaning of infants. Also, the children of a malnourished and unhealthy mother are likely to be low weight babies with chronic poor health. Such children are prone to the childhood diseases including ARIs and when they

contract deadly ARIs their chances of surviving are further diminished. The connection between malnutrition on the one hand and child morbidity and mortality from ARIs on the other has been suggested by several research findings, (see for example, Osinusi and Oyejide (1990), Berman and McIntosh (1985), Reyes et al. (1997: 214)). Moreover, personal observation and experience suggest that poverty to some extent also leads to teenage or early marriages in some parts of Ghana or, even more recently, to teenage pregnancies. It is conceivable that in some parts, parents anxious to claim bride-wealth might push daughters into early marriages. This compounds the problem of maternal and neonatal health. A teenage mother is often inexperienced in care-giving.

As health care entails financial costs, a parent without the financial means is handicapped when it comes to sending a sick child with pneumonia to hospital where money is required to pay for user fees.

Knowledge and Perceptions as Barriers to Patient Care

As Pelto and Pelto (1997: 148) point out, all people, whether biomedically trained health professionals or rural villagers, have cultural belief systems about the causes of sickness and possible remedial measures. A community has its stock of knowledge and perceptions concerning the conditions which are here categorised as ARIs. This includes availability of local terms for these conditions, perception of symptoms, the relative severity of these illnesses and symptoms and what people say they do about them or don't do, what they say they ought to do or not do about prevention and treatment and the perceived health benefits of different, often competing modes of help-seeking. There is usually intra-cultural variation in that knowledge. Older persons may be perceived to be more knowledgeable, especially where traditional aspects of these conditions and their management are concerned. Educated people may know more about bio-medical health seeking than illiterate folk. Knowledge and perceptions concerning ARIs differ from community to community and often substantially from the bio-medical model of these diseases, despite similarities.

A people's knowledge and perception play a part in determining who qualifies to be a patient or to be placed on the sick role. The patient role is ascribed socially and goes along with expectations, obligations and also duties. Knowledge and perceptions determine to some extent or whether a child with an ARI condition or its symptoms will be assigned the sick role. The labelling and classification of that child's health problem will influence resource allocation, commitment to care-seeking and treatment choices.

For some Ghanaian communities the perceived causes of ARIs are taken to include exposure to the elements: particularly cold or windy weather, dust and rain. Mishandling of the baby leading to injury, failing to keep it properly wrapped up, or inappropriate diet have, among others, been blamed. Offensive viruses or bacteria (*streptococcus pneumoniae* and *haemophilus influenzae* and the like which feature in the biomedical model) are not an issue, since micro-organisms are rarely considered in local explanations of disease. Note that the rural Ghanaian perceptions of causes are not peculiar to Ghanaian communities nor are they for that matter mistaken.[9]

A belittling of these perceptions may therefore be short-sighted. However, it should be remarked that local beliefs and perceptions may not include some important causative factors. On the contrary, certain behaviours that derive from local perceptions of causes may turn out to be themselves dangerous and ill-advised. For example, mothers are not aware that **products of combustion** from cooking and heating fires are a risk factor. They on the other hand try to prevent illness by warming huts and enclosed spaces where their neonates and vulnerable infants are confined by burning various types of fuel stuff that the local environment can offer. Personal observation of nursing mothers' behaviours in some Ghanaian communities confirm this. Mother may also tend to keep out the cold by wrapping up the sick child too tightly for its good, thus making breathing even more distressing for a child who already has ARI problems.

Our findings show that there is no adequate recognition of the role of personal transmission of some ARIs. Some mothers and kin who may contract coughs and common colds might not therefore exercise caution when they happen to be in the baby's presence.

Most people can recognise upper respiratory tract conditions such as catarrh, common cold or signs such as blocked nose, runny nose, loss of appetite but the lower respiratory tract illnesses, like pneumonia, are not so easily recognised. How do mothers and family members rate the danger attached to the various signs and symptoms of ARI? It is not easy for a mother to tell when a cough becomes something more sinister like pneumonia.

The studies in Ghana, as well as others conducted in several parts of the developing world, show that mothers may recognise some of the danger signs and symptoms of ARIs and some pay attention to them. However, certain other signs might not be recognised or could be disregarded by local communities. For example, **nasal flaring** is hardly recognised as a danger sign in Ghanaian societies.

Very **fast breathing** is recognised as breathing difficulty but when it is moderately fast mothers seem ambivalent. For example when video clips of very fast breathing immediate

preceded moderately fast breathing some mothers describe the latter as normal. Of course video effect biases cannot be ruled out in these procedures. While fast or rapid breathing is regarded as one of the reliable indicators of pneumonia, nevertheless it is relative to age. This fact must complicate recognition for the untutored mother. It cannot be expected that rural people would know that what is bio-medically fast breathing for a two year old may be normal for a neonate.[10] Where stethoscopes are not considered very dependable, even hospital workers need training in the diagnosis of fast breathing and this researcher was lucky to have the use of a minute timer on the field.[11]

Where the breathing rate is very rapid some Ghanaian communities might perceive and label it as convulsion, which to them is an autonomous disease. Convulsions at least in Northern communities have spiritual causes associated with the "bird of the sky". For that reason the affected child in many cases would be referred to the traditional healers.

The evidence is that **chest in-drawing** is difficult to recognise, except in its severe form. It might be confused with other conditions. For example, a wasted child's breathing may draw attention to the exposed ribs. Secondly, chest in-drawing might be associated with **asthma** or some traditional ailments and not therefore be perceived as a source of pneumonia. In the Jirapa District of the Upper West a condition referred to in local idiom as *abandanya*, (chest of agama lizard) or *tarelinya*, (chest of *taleri* lizard) contains chest movement irregularity including inter-costal chest in-drawing. However, we were unable to ascertain the extent to which these local terms cover fully the biomedical condition of chest in-drawing. Dagaba people traditionally singled out the irregular movement of chest for treatment and they called upon the traditional healer to deal with this. The therapeutic approach in this case involved incisions on the chest and inoculation with local medications.[12] In the case where chest in-drawing is attributed to asthma, it might not receive immediate treatment because of a perception of asthma as a chronic problem, one recurring periodically.[13] Nearly all Bulsa respondents (of the Sandema District) said asthma, *buntorivuusim* (toad breathing) was best treated by the traditional healer.

Attitudes to wheezing differ as they do to incessant crying. Not everybody regards them as a sign of serious illness or pain and for that reason they might not trigger special attention. Seeing a child exhibit signs of serious ailments without a specific perceived cause often inclines some rural dwellers to seek spiritual explanations. These invariably suggest ritual approaches or failing that resort to the drugstore or leftover medicines. The biomedical facility may not be used in such cases. Past experience with treatment for illnesses presenting similar symptoms suggests use of the same medications purchased from the drug sellers or

obtained previously from the hospital. Certain medications such as anti-pyretics, analgesics and others available at the drugstore for other conditions might recommend themselves for use for the treatment of serious ARI episodes. A possible danger lies in the fact that serious symptoms could be suppressed by the effect of improper medications and dosages, which aggravate rather than diminish the danger. Worse still, it makes for complacency when synergistic effects occur as a result.

When local terms representing pneumonia were compared to other illness terms, such as diarrhoea, whooping cough, colds, asthma, malaria and convulsions, the pneumonia ones ranked as moderately severe illnesses with scores ranging from as low as 45% in one site to about 55% in another. The main reasons for respondents' classification of pneumonias as severe illnesses were its fatality, breathing difficulty and restlessness of patient. In addition, difficulty finding a cure and other factors were cited. (See Table 1.) These findings do not suggest that people would be too concerned about seeking immediate treatment at the biomedical facility for pneumonias or related illnesses presenting signs and symptoms similar to pneumonia.

Table 1: Respondents' Explanations of Severity of Pneumonia
(responding to local terms for the illness)

Reason	Percent
Fatality	27.4
Breathing difficulty	26.2
Restlessness	14.3
Pain	13.1
Finding Treatment	9.5
Causes other illness	6.0
Others	3.6

Knowing about people's knowledge, beliefs and perceptions on ARIs is crucial, as Ward et al (1997: 19-20) have remarked. It can be of help in directing educational initiatives and public health communication, encouraging the involvement of alternative care and contributing to the search for strategies for removal of barriers to presentation of cases at the biomedical facilities. The information enables recommendation and encouragement of some beneficial practices and the utilisation of available local resources. It is beginning to dawn that not everything that rural people do in connection with management of ARIs is necessarily bad. On the contrary, there is much that can be learnt and adopted from local practices for the

management of these diseases. In this connection, even the local terms by which ARIs are known are insightful.

Naming ARIs

The naming of ARI conditions can be an important source of information on knowledge and perceptions and about potential modes of help-seeking. In Ghanaian communities no unique term exists for the common cold. Akan and Ewe tend to classify this condition with headache, *tipae*, *tiyadee* (Akan terms) or *tagba* (Ewe term). When they have to be more specific, respondents called the common cold by the term for one of its symptoms, usually, "runny nose". It is not therefore strange to find pain-killers such as paracetamol, "M&B no. 3", and Aspirin, which are used to treat headaches, being applied orally or as nasal drops to treat common cold.

Among some Northern Ewe the term for cough, *kpe* occurs in several illness terms such as *ekpe*, cough, *kpefle*, dry cough, *konkokpe*, whooping cough, *kpenyanga* (the big cough), tuberculosis, *ngolipke* (the ghost's cough), tuberculosis etc. These terms suggest popular Ewe perceptions of the diseases involved. Bulsa call asthma, "toady breathing", and it is treated by a specialist who administers a concoction that includes what local people call "the tongue of a toad". The Dagaba call chest in-drawing, *abandanya*, "lizard chest", and some of them treat this locally by making incisions on the chest wall and rubbing into the incisions a medication that contains kola-nut, burnt tobacco and in addition, some say, the skin of the lizard.

The interest in local illness terms should not to be mistaken for a search for equivalents to the biomedical terminologies, as Grove and Pelto (1994: 414) remind us. Indeed such a search can be misguided. Very often several local terms may exist that appear to approximate the key biomedical concepts. These may cover other conditions or have perceived symptoms that may not be crucial for the definition of the biomedical concept. At the same time the local terms may not emphasise some of the established signs and symptoms. Take the case of Dagaare, the language of the Dagaba of Jirapa. It offers several terms that are potential candidates for pneumonia, such as *marong* (lit. cold), *pardira* (anal sore), *nyabie balong* (chest disease), *bandanya* (lizard chest). Clearly, each of these draws attention to some aspect of the disease. The same could be said for the Akan illness terms: *esiwunu*, *emuyadee* and *mpafe*, which may equally refer to pneumonia and some of its signs and symptoms. It is therefore important to search for those linguistic features which, as Mull and Mull (1994: 348) maintain, could facilitate communication with mothers and local care-givers. The study of local disease terminologies should assist the health educator to decide what terms to

introduce into health education messages, or to put it the other way, what local terms to avoid in communication with mothers, since how or by what name you introduce an illness or disease has consequences for intended intervention.

Economic Barriers to Patient Care

Even when people know that they ought to send a child who is very sick with an Acute Lower Respiratory Infection to the bio-medical practitioner, the problem of money might yet stand in the way. This problem results in sending children to the hospital too late, as parents and kin explore first the cheaper treatment modes. Where herbs are recommended it may cost almost nothing for a rural family to get them from the bush. The traditional healer may appeal to poorer parents because although he or she might take fees, payment may not be immediate. Some healers are willing to take their fees later, when the treatment has been successful. There is often the tacit understanding between traditional healer and client that the condition could relapse if one party reneged. The fees moreover tend to be in local items rather than cash, unlike hospital treatment. These are conclusions based on respondents' own explanations of their choices. The local healer continues to be appealing to some categories of the rural poor, even when the feeling is that the biomedical practitioner is better equipped to treat diseases.

In Ghana where the "cash and carry" system operates, the care seeker must settle the clinic or hospital fees and buy the recommended drugs. A hospital admission may entail considerably more costs to the care-taker in rural areas. In one mission hospital there was a policy at the time of the research not to reject poor patients requiring hospitalisation but to treat and later recover fees by giving them jobs at the hospital when they have regained their health.

Poverty also means that recommended dietary items are not affordable. Foods recommended for the sick child, such as fruit juices and beverages, are not always available to low income people in both the rural and urban areas. Respondents acknowledged that a sick child should be given "tea" (any packaged manufactured beverage, real tea not excluded). However, in Ghana such beverages are perceived as middle and upper income breakfast items, and beyond the means of the rural poor. NGOs' and community workers' answer to this has been to suggest local substitutes or diets derived from local food items. Mothers have even been taught how to make nutritious meals out of local items. On the question of fruits and perishable food items, one nagging problem has been marked seasonality of supplies and lack of storage. Prices fluctuate as a result of seasonal scarcity.

Associated with the economic and financial barriers is the question of transportation costs for those who live far from the medical facility. Add to this the hospital charges and the financial burden on the rural poor looks considerable. It may not be appreciated that even the time spent at the hospital is valuable, even if the thinking has always been that time matters not to the rural person whose life may not be regulated by the clock. The mother of the child or the person presenting the child is missing out on farming or other economic activities, which could ultimately affect the sick child, its siblings and the mother herself.

Mothers, as women, are not always the well-to-do in society yet it falls to them to care for sick children and send them to hospitals. The child's father may have to provide money to the mother for this. The problem is that it is a mother who is likely to notice that a child is not feeling well. The time lapse between a mother's observation and a father's persuasion may make all the difference. It has been found that a delay of 3 to 4 days from the time the symptoms of pneumonia have been noticed is all that it takes to kill a child. Financial constraints may lead to a delay in reporting life-threatening cases to the hospital, as parents try cheaper sources of help-seeking first.

Social and Cultural Norms and Values

Decision-making processes which are crucial to help-seeking illustrate ways in which cultural norms and values can hinder child healthcare. Cultural norms influence questions such as what help-seeking is appropriate to a sick child's particular condition, who should present the sick child, who should meet also the cost of fees and charges and how much money, if any, should be made available to meet costs. Cultural norms determine who take the decisions and in consultation with whom.

In some patrilineal societies, the right to take important decisions affecting the well-being of the family and its members is vested in the senior male agnates, such as the grandfather, the senior uncle, the father, etc. Consultation with at least the head of family or household may be required. In the matrilineal societies where women apparently have greater autonomy the situation may yet be similar, as a mother might need to ask for money from her mother, sisters or brothers or from her husband who may or may not reside with her regularly. Situations arise therefore, where the person whose decision matters is not in immediate contact with the affected child. The seriousness of a child's health condition may not be immediately understood by senior kin other than the child's mother, and this can account for delays in seeking specialised healthcare. This would seem to be the case with the Dagaba. A mother acting without the permission of the senior kin could be sanctioned for unilaterally

seeking external health care, especially when things go wrong. Societies differ on this issue. Dagaba mothers' recall of past ARI episodes and their management left the researcher in no doubt that the mother's inability to decide on her own was a serious barrier to care seeking for children with ARIs.

When a mother has not obtained permission to send a child to the hospital, it also implies that she would not be given money to meet the health costs. Where the decision-maker has to make a monetary contribution and where the sick child is not his or her own it can be surmised that occasions would recur when a cheaper mode might be suggested to a mother by the decision-maker in an attempt to avoid commitment of resources for what could be perceived as costly health care. A case like this came to our attention at one of the study sites.

There may be a need in some societies to consult soothsayers to ascertain causes before treatment. This adds to the delay in health care-seeking. This consultation may be deemed essential by the society in the case of a neonate with severe symptoms, since tender infants are believed to retain a stronger attachment to the spiritual world which influences their early life. The perception of the infant's spiritual condition in some societies can pose a serious obstacle to help-seeking. Though we did not encounter this kind of scenario in any of the districts where the ARI research was carried out, the concern is a genuine one, and is based on the researcher's understanding of Kasena-Nankana attitudes to neonates.

In some of the Upper East communities it is prohibited to send a neonate outside the homestead within the first weeks of birth for fear of exposing the baby to the public gaze, which is believed to further jeopardise a neonate's fragile condition of health. Where beliefs like these exist, parents of sick children might be unwilling to seek external health care or might do so reluctantly and without any assurance that they are doing the right thing.

Attitudes of Biomedical Care-Givers

Although the study did not set out to review the attitudes of health practitioners, it can nevertheless be remarked that in the rural context, a we-they and top-down attitude accounts for the distancing of care-seekers. Observation of the behaviours and attitudes of some categories of health practitioners shows that hierarchy (superior-inferior relations) characterises provider-patient relations. The illiterate rural mother is sometimes made to feel inferior and ill at ease at the clinic. This undermines their willingness to go to there. Cases do not always receive adequate or personalised attention. Though this is not the norm, the "Just another case" attitude exists in some facilities and is compounded by a tendency to blame mothers for their children's health problems. Communication failures due to indifference, or

inability to speak the patient's language does not make for effective intervention, especially where, as in the case of ARIs, advice is an essential component in therapy.

The hospital environment and procedures may compound the problems under discussion. Firstly, visits to modern health facilities can take too long, an obvious disincentive to already over-burdened rural mothers, who must walk long distances and stay in long queues at the clinic or hospital. In many rural areas not only are trained medical personnel like doctors lacking, the necessary resources including equipment, and appropriate antibiotics may not be available. Though there was evidence that some middle-level nurses had training in ARI or pneumonia case management, some rural nurses lacked this training. In the case of drugs, proper storage may be an issue, taking into account the tropical weather which reduces the life of some medications.

If it is any consolation: the findings from paired comparisons of different help-seeking facilities conducted at Jirapa (UW), Duayaw Nkwanta (BA) and Kpandu (VR) showed that the hospital or clinic was by far the most popular with mothers. For the various ARI scenarios presented to mothers, they said they would prefer the hospital or clinic because these are better equipped with diagnosis tools and procedures ("they will *feel* the child and know what is wrong"). The Ministry of Health and health practitioners would do well to take advantage of this apparent goodwill and confidence in biomedical practice.

Physical Conditions: Infrastructures and Environment

It is hardly worth the point to reiterate that terrain, vegetation and topography compound the poor accessibility to some rural areas. The countryside is sometimes rugged and hilly. There may also be large rivers which have not yet been bridged. In that case villagers may have to use dugouts to ferry themselves across rivers to the opposite bank to be able to get to where there are facilities or else make long detours. A mother with a sick child may not be able to attempt such a journey without help. In the case of Ghana certain parts of the country, for example, still continue to be labelled "overseas" by the popular press, because they are isolated at certain times of the year and cut off from the rest of the nation.

The tropical forest vegetation in some parts of Ghana also encumbers movement, quite apart from making it unsafe for the lone individual using a footpath. In a climate which experiences heavy seasonal rainfall, rural roads deteriorate rather fast in the rainy seasons. Paradoxically, ARI prevalence increases in the inclement seasons.

Dispersed settlement patterns and sparse population are disincentives to the provision of basic facilities in rural localities. Even where there is the will, which is rare, third world

governments lack the means to provide every community of several hundred individuals with its own clinic and other facilities. The unfavourable physical and environmental conditions can affect vicariously the maintaining and sustaining of primary Health Care services in those areas where they are most needed.

Given that roads are not always available all year round or are difficult to maintain perennially, perhaps the emphasis should be placed on cheaper means of communication such as the use of bicycles. Communities such as those of the Upper West Region of Ghana appear to have found the bicycle to be a very useful vehicle and mothers have learnt to take advantage of it to send their sick children to the nearest hospitals, even when this is up to 15 km. away from the home. Personal observations of hospital attendance at Jirapa District confirm this. However, one can see obstacles to the use of cycles. Local perceptions might not favour their use, especially for women, or the terrain might be too hilly to make it feasible to use bicycles.

Political Climate

Health issues cannot be divorced from the political underpinnings. Rural populations continue to be marginalised and 'disenfranchised' in much of the Third World. Regimes are rarely truly democratic. The military and civilian governments found in the so-called developing world continue to be controlled by urban elites who are concerned more with the problems and priorities of the urban centres than with rural concerns. It is easy to ignore the rural under-privileged because rural people do not on the whole have a strong voice. Their 'voice' takes the form of 'exit' to the urban and peri-urban areas, a confirmation of Hirschman's thesis discussed in Herbst (1990). Even this opportunity is unequally available to all. The youth and the males are better able to exercise it than the old and the female.[14] For that reason, the exit option is exercised to the detriment of the rural areas since it is the segment with potential for voice, the active male population, that is opting out. Reduced political clout implies that rural people cannot negotiate for rights and entitlements as citizens, including the right to better healthcare. Rural deprivation itself serves as a disincentive to trained manpower (including health staff), which remains unwilling to be transferred to the rural area or to remain there and develop it.

The situation is worsened by sporadic or on-going intra- and inter-ethnic conflicts, which pose hazards for healthcare and health delivery. The principal victims here are the children and their mothers. The Ghanaian Districts in which the ARI study was conducted fortunately did not experience overt ethnic conflicts.

Education

Literacy, which is so important for health, lags behind for women, especially in the rural areas. Recent statistics suggest that while there has been improvement in the overall level of literacy in Ghana between 1970 and 1995 the literacy rate for women remains no more than 53% with rural areas lagging far behind.[15] Maternal illiteracy translates unfortunately into continued dependence and vulnerability. An inability to take decisions, including when, for what disease and where to seek care for the sick child and the lack of appropriate understanding of health issues reflected in the wide gap between mother's knowledge and bio-medical knowledge of illnesses like ARIs and their treatment are not unrelated to low maternal access to formal education. It also implies inarticulateness and inability to negotiate with health providers. Maternal education affects ultimately both maternal and child health.

Conclusions

In their critique of the emphasis that is sometimes placed on the biomedical models to the exclusion of other models, Krieger and Zierler (1995) remark that

> ... lack of attention to societal determinants of health ... prevents this (the biomedical) from explaining why population distributions of disease generally follow the contours of power, with the overall patterning closely associated with a society's economic and social structure, standards of living, and degrees of social inequalities ..

The barriers to help-seeking and patient care for ARI in communities are several and they require emphasis. The approach adopted here is one that is informed by what Krieger and Zierler (1995) refer to as an ecosocial theoretical approach. It attempts to be inclusive, taking into account as it does the social, cultural, economic, political, biological and ecological variables.

It is important to see the impact of the obstacles discussed here in cumulative terms. Further studies are of course necessary to measure the contribution of each of these. A focussed ethnographic study, as a case study, is limited in this respect. It is significant however to consider the effect of the factors that impede patient care in terms of specific site. As sites differ so would the effect of particular factors, as impediments to care-seeking reflect these differences.

Given that there are conceivably barriers to help-seeking for children with ARI conditions and that we have an idea what these are, it becomes possible to make suggestions for

addressing these hindrances to patient care in African developing countries. Studies such as the focussed ethnographic studies that WHO has sponsored in Ghana, Gambia and elsewhere enable us to understand the problem and to make suggestions.

It is consoling to know that where there is a will there is a way. For well-motivated health programmes to succeed the goodwill of the key players: care-takers, families, communities, health authorities and politicians, not forgetting researchers, must be harnessed. At issue here is both long-term goodwill and long and short term interventions.

We can begin immediately by tackling the problem at the local level. A view that local people are hopelessly conservative seems unfounded. Their apparent conservatism is due to lack of information and lack of empowerment. The solution would demand the adoption of social marketing approaches, such as those suggested by Manoff (1997). Mothers, their families and others in the communities must be made to realise the importance of ARIs as potential killers of infants without making them panic. Attention should be drawn to the signs of ARIs to assist in the recognition and distinction between self-limiting signs and those that are dangerous to a child's health.

For the self-limiting signs, it seems that most communities have acceptable ways of coping. Keeping children warm, giving soothing remedies, warm massaging with a towel soaked in hot water, giving pain killers like paracetamol and the sulphur drug widely known in Ghana as M & B mixed with lime, chloroquine syrups, typically found in inventories of home medications can be mentioned. Many mothers in the Ghanaian communities where the ARI studies were conducted seemed to be aware of the need to give fluids and gruels made from cereals, although whether mothers actually follow through their own advice is another matter. Where these approaches do not endanger the health of children, they need to be encouraged. My impression is that mothers are being told that they should give 'teas' to their sick children. This means manufactured beverages, which many in the rural areas might not be able to afford. We should encourage the giving of local fluids, where manufactured beverages are expensive. Light soups for example which can be made from local ingredients could be encouraged. Even some of the plant extracts that are used locally should not be brushed aside on a priori grounds as valueless or ineffectual. As Elkin and Ross (1982) found out in the study of medical foods in the society of the Hausa of Nigeria, some of these items can have a demonstrably positive health effect.

Those practices which have a negative health effect should be discouraged. Further research is needed to establish the safety of some of these practices. Perhaps attention might focus on dietary prohibitions for children with ARIs. Foods like rice and tubers are dis-

recommended by some Ghanaian mothers responding to scenario presentations involving children sick with ARIs.

However, there is no evidence that children presenting more dangerous signs are treated differently at home. This may be because the seriousness of the danger signs is not sufficiently recognised. Education of care-givers on the dangers of lower respiratory infections cannot be overemphasised. Care-takers should be persuaded that a satisfactory treatment for these can be found in the bio-medical facilities if the child is referred as early as possible. They need to be told that delay of just a few days can mean death for a child.

It is recommended that the educational messages should target not only mothers as is the current tendency but also fathers and others. This is necessary because until mothers have been sufficiently empowered to be capable of independent decision taking, the father's perception of danger will count towards the presentation of that child at a bio-medical facility, especially if it is one that is distant. Such education should be done in the language that the parents understand best, ideally the mother tongue or the language of wider communication in multi-ethnic settings. The educational messages should employ local terms that are familiar to the parents but do not trivialise the disease. As Manoff (1997: 261) has suggested, communication can be made effective when it is bilateral and involves a two-way process: ".. communicating with the people to ascertain how to communicate with the consumers".

Community health programmes have a role to play here. There is the need to work towards the integration of ARI programmes with other programmes as it makes for economy of resource utilisation.

The channels of communication can include the following: community gatherings and durbars or clubs and associations and social networks; radio and TV messages, drama and music to illustrate appropriate behaviours, cartoon illustrations and adult literacy schemes can all be used to give health education. In some rural communities cheap portable radios powered by battery exist that are capable of receiving FM broadcasts. The effect of the FM radios broadcasting programmes in local languages is considerable, as the case of the URA Radio in the Upper West and Upper East Regions of Ghana shows. FM radio is fast becoming the source of entertainment in many rural communities in Ghana. It might sound strange to suggest TV, nevertheless some rural dwellers in Ghana possess black and white TV sets which can be powered from a used car battery. This makes even the TV a useful source of information since in rural settings a TV attracts everybody who is around. What people see on television generates greater community discussion.

The cooperation of local healers is also very important in changing community perspectives. Field experience shows that traditional healers are not necessarily antagonistic to modern bio-medical health practice. See Warren et al. (1982) for attempts initiated in Ghana to secure a working relationship with some traditional healers in the Brong Ahafo Region. Traditional birth attendants are willing allies in the provision of care for children in rural communities. Many of the latter see themselves as allies of the health business.

The cooperation of drug sellers is also crucial. The sellers of cheap drugs and antibiotics such as septrin are untrained. They may hawk their wares from house to house or from village market to market. These drugs may be exposed to the elements. Drug sellers require some basic training and will be only too willing to participate and earn certificates. Training them and registering them confers respectability while making them accountable and amenable to control. They could become useful agents.

The staff at rural clinics might need training on the recognition of the danger signs of pneumonia and what to do. These clinics would also need to be equipped with the necessary drugs and vaccines for the six killer diseases of children and satisfactory storage facilities. The less positive attitudes of some staff could also shift with education from one of hierarchy to one of partnership.

Adult literacy for rural people is a necessity. The success of the Ghana Institute of Literacy, Linguistics and Bible Translation in Northern Ghanaian communities shows that rural dwellers, especially women, can benefit from informal literacy education, which can itself be a tool for development.[16] Women can only be empowered when both men and women appreciate the benefits of the empowerment of women. Education enables them to do this. It can empower them to take control of their lives and not continue to be dependent on ritual modes of seeking solutions to life's problems.

Communities need to be involved in finding appropriate strategies for dealing with ARI conditions. A meaningful dialogue with the community and its leaders is rather essential and if successful will go a long way to sustaining any programmes for intervention. One outcome of community involvement is its perception of ownership of such programmes and its active participation. Recent research on community-directed treatment of onchocerciasis with Ivermectin shows that under certain terms communities can accept a role in medical programmes (WHO 1996). Community health volunteers supervised and rewarded by their communities have assisted in keeping communities covered more effectively than have external or visiting health personnel. That study, which was carried out in several African countries simultaneously, compared coverage and effectiveness of officially designed and

directed treatment regimes to community directed treatment (COMDT). It found that treatment systems designed and implemented by communities with some supervision from health-workers were more effective and achieved better treatment coverage than the ones directed by officials. Mull and Mull (1994: 349) refer to the drop in mortality rate in parts of India and Pakistan as a result of village health workers using antibiotics to treat pneumonia there. The question here is whether governments can deliver the necessary antibiotic medications and whether the infrastructure to support delivery can be put in place and maintained.

On the question of making antibiotics available to village volunteers to treat children in their communities, concerns have been expressed about the misuse of these medications, especially in the event of their abuse due perhaps to wrong diagnosis of acute lower respiratory infections. Fear has been expressed that misuse of the antibiotics for the treatment of viral infections could well result in bacterial resistance to the antibiotics of choice. The concern is one that is justified and care would need to be taken in the training of village assistants and in the monitoring of their performance.

Finally, it needs to be reiterated that in Ghana and elsewhere in Africa where customary beliefs and practices as well as the socio-economic and political contexts still play a significant role in the treatment of children's diseases such as ARIs, there is the need to design, support and execute focussed ethnographic studies of disease and health-seeking behaviours.

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Notes

[1] This article is based on a paper read at the 12th Conference of the African Region of the International Union Against Tuberculosis and Lung Disease (IUATLD) which was held in Nairobi from 16th to 18th March 1998.

[2] See Grove and Pelto (1997: 196). Acute Respiratory Infections (ARIs) are classified into on the one hand Upper Acute Respiratory Infections which are usually caused by viral infections (rhinoviruses, parainfluenza and influenza viruses, respiratory syncytial virus (RSV)) and are self limiting and on the other Lower Acute respiratory Infections caused more often by bacterial infections (see also WHO (1991)). Other classifications distinguish between Upper Respiratory Infections: coryza, cough, sore throat, anorexia, malaises, and fever; Mid-Respiratory Infections such as croup syndromes -- viral laryngotracheo-bronchitis or acute epiglottis, or stridor and the Lower Respiratory Infections like pneumonia and bronchiolitis (see Berman and McIntosh, (1985)).

[3] I wish to acknowledge with profound gratitude the contributions of Dr. Eugene Nyarko, the ARI and Tuberculosis Coordinator at the time of the fieldwork, Dr. Banka, then medical officer in-charge of the St Joseph Hospital at Jirapa and also one of the key informants for this site, and Dr. Amexo, the District Director of Health Services at Kpandu at the time of the study. The hospitality of Dr. Fokke Meima and his wife Dr. Wubbe is hereby acknowledged. Dr Fokke Meima displayed sustained interest in the study right from its inception to the end. It is a pity that his busy schedule did not allow him to play a more active role.

[4] The communities fall within the catchment areas of several important hospitals including the St John of God Catholic hospital at Duayaw Nkwanta, the St Joseph Hospital which serves Jirapa and neighbouring villages in Upper West and the Margaret Marquart and Anfoega Hospitals of the Kpandu District in the northern part of the Volta Region. For a fuller description of the study areas, the methods and the findings, see Awedoba et al. (1995). See Pelto and Pelto (1997) and Grove and Pelto (1994) for detailed descriptions of the sundry qualitative and quantitative procedures employed in the focused ethnographic studies sponsored by WHO of which this study is one. This author did some additional ARI and diarrhoeal researches in the Bulsa District of the Upper East Region of Ghana between November 1994 and January 1995.The latter were supported by a grant from the Wenner-Gren Foundation of New York. They focussed on the importance of mothers' social networks in their knowledge and behaviour concerning children's health issues such as diarrhoeal disease and acute respiratory infections.

[5] In the home interviews care was taken not to select more than one respondent per household. These could be young or old and any woman was eligible for inclusion. The procedures used included presentation of any three of six scenarios depicting children of various ages (neonates to 2 year olds) suffering from one of the common ARIs. Based on the scenarios, local terms were elicited, as well as mothers' advice and suggestions for dealing with the conditions presented. Respondents also indicated preferences for treatment through paired comparisons of facilities. Other procedures included symptom associations and measurement of perceived severity of illnesses.

[6] Mothers presenting children with ARI signs were identified and invited for interview and a physical examination aimed at assessment of rapid breathing and other danger signs. Questions asked included mothers' observation of illness signs and symptoms as well as home treatment.

[7] The past episode recall involved the selection of mothers of young children. Questions included how soon signs were observed, what was done, outcomes and what obstacles existed to accessing care.

[8] Those selected for in-depth interviews included medical personnel, local healers and opinion leaders. Both sexes were eligible. These interviews preceded the rest of the study procedures and set the direction for the study. For these reasons, inter-site variations in the procedures were inevitable given the differences in sites.

[9] Enarson and Enarson (1997: 6) have remarked on the role of chilling in the incidence of pneumonia.

[10] See the WHO definition of Rapid Breathing based on breaths per minute (bpm). The cut offs for normal breathing are: 60 bpm for under two month olds, 50 bpm for 2 months to a year and 40 bpm for one to 5 year olds.

[11] Although a watch with a seconds hand could be used to measure breaths, watches are luxury items for rural people. In any case, training would still be required on the use of watches or clocks as diagnostic tools for measurement; additionally, people would have to be trained on how to use child's age to determine fast and normal breathing.

[12] In September-October 1993, when the researcher was based in the Jirapa area, he did observe a number of children being brought to the Jirapa Hospital with these marks made with a sharp instrument and sometimes with ropes around the upper body.

[13] Some Ghanaian respondents relate its episodes to the phases of the moon, which would suggest a fatalistic attitude about the condition.

[14] Observations at some Upper West sites suggest that male migration is an issue affecting children's health. A young woman with several young children without the support of an absentee husband can be overwhelmed, as one particular scenario showed.

[15] The Human Development Report for 1997 suggested a 1994 literacy rate of 51.2% for Ghanaian females as against 75.2% for males.

[16] This is evident from the various annual reports that this NGO, which is affiliated to the University of Ghana, submits to the University through the Institute of African Studies.