

**ASSESSING APARTHEID'S DAMAGE:  
THE BROKEN MARRIAGE OF ANTHROPOLOGY AND EPIDEMIOLOGY IN  
SOUTH AFRICA**

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**ABSTRACT**

*South Africa is currently grappling with the problem of transforming a fragmented, apartheid-inspired health delivery system structured along racial lines. Cuban doctors have been invited to serve in rural areas where many South African-trained medical personnel refuse to go, often joining the post-democracy 'brain drain' as a result of dissatisfaction with government health policies. This paper attempts to bring to light a once very successful and highly innovative health delivery model that was conceived and piloted in South Africa over a half-century ago. This model combined anthropology and epidemiology and resulted in calls for a re-design of national health delivery based on what was called the Pholela model. Due to shortsighted government policy at the time, the model was exported abroad (via immigration) where it formed the basis of several progressive health initiatives in various countries. Significantly, it marked the beginnings of social science and medicine collaborations that are still viewed as an ideal for developing more effective health interventions. The author suggests that this historic experiment at Pholela has much to offer in terms of providing a model that could foster transformations in both academic and medical service.*

**INTRODUCTION**

*"The epidemiologist must be and is a social anthropologist with his particular interest being the classification of disease".*

Fleck and Ianni, 1958

In the last few decades there have been concerted efforts by academics and others to internationally demonstrate the relevance of social science for medicine. Most of these efforts have taken the form of published articles or books by social scientists aimed at educating their colleagues and students about the rich possibilities offered by a collaboration between the social sciences and medicine (c.f Stahl et al 1975, Stallones 1980 Eisenberg and Kleinman 1981, Greenberg 1983, Terris 1983, Ruffini 1984, Janes et al, 1986, Hahn 1995, Campbell and Williams 1996).

Scholarly interest in the contribution that anthropology might make to epidemiology (the study of the distribution and determinants of disease) has been part of this general trend. Researchers based in Europe and North America cite the rise in chronic, non-infectious disease within those populations during the last century as a major reason for this increased interest (see Rose 1982 for example). These diseases are often referred to as 'diseases of affluence' or 'diseases of civilisation', terms that emphasise an awareness that complex factors which typify a modern, western lifestyle are negatively impacting on the health status of people today.

Hypertension, stands out as one example of a disease whose etiology might only be understood within a social context that includes myriad factors which may encourage obesity, a sedentary lifestyle, non-compliance with prescribed medications or diets, and an array of factors that contribute to that elusive component called stress (Rose 1982). Scientists have come to realise that all of these variables are strongly influenced by social and cultural forces. Thus, an increasing appreciation of the impact of the sociocultural context of health and illness has led many medical professionals in the latter part of the 20<sup>th</sup> century to explore the social sciences and incorporate their academic paradigms as part of an expanding biomedical model (Brown and Inhorn 1990).

According to Syme (1983), the 1980s marked the beginning of a new epidemiology that aimed to define and measure complex sociocultural processes hypothesised to impact on health/illness states. Some medical researchers viewed the incorporation of the sociocultural dimension into epidemiology as the hallmark of what they termed the

'second epidemiological revolution' (Terris 1983). For the anthropologists, these developments in medicine paralleled developments in their own field. Anthropology from the 1960s onwards has been marked by increased interest in developing anthropology's potential for contributing to an understanding of day-to-day health issues and epidemics among specific populations (McElroy and Townsend 1989). With the publication of two key articles in 1963, anthropologists, according to Foster and Anderson (1978), started to appreciate the significance of researching health/illness phenomena. These were an article on anthropological perspectives on medicine and public health by Benjamin Paul (1963), and a major survey article entitled 'Medical Anthropology' by Norman Scotch (1963a).

Since the early 60s the sub-discipline known as medical anthropology has grown steadily, with anthropologists giving increased research attention to all manner of human health-related activity. According to Alland (1987), some of the areas of early research included cross-cultural studies on mental illness, public health, ethnopharmacology, folk therapies, shamanism, paleopathology, stress and disease, evolution and diet, and human epidemiology, amongst others. It was hoped that the data and theory generated by such studies might ultimately contribute towards building more effective and appropriate health delivery systems (see Paul 1963 and Scotch 1963a). The growth of medical anthropology has proceeded together with growing interest in what came to be termed 'applied' anthropology. Anthropologists such as Caudill (1953) and Weaver (1968) considered the developing medical anthropology to be a branch of applied anthropology, while others were content to recognise the applied dimension as simply a significant feature of medical anthropology (see McElroy and Townsend 1989 for example). This debate still continues today. Regardless of where academics choose to place medical anthropology in the rubric of disciplinary classification, there can be no doubt that professionals on both sides, anthropology and medicine, are finally recognising the benefits to be derived from a cross-disciplinary pollination.

## The South African Connection

This paper began as an attempt to trace the roots of contemporary medical anthropology, both as a unique branch of anthropology that draws upon a specific body of scientific knowledge and theory, and as an 'applied' field with a potentially clinical dimension. During the course of a literature review by social and medical scientists who played significant roles in the early development of medical anthropology, I was struck by the frequent reference made to early research and work in South Africa, and thus decided to investigate further its contribution.

It is the purpose of this paper to explore in detail this South African connection to the birth of modern medical anthropology. I aim to demonstrate that there is a rich legacy of collaboration between anthropology and medicine in South Africa, that was unfortunately destroyed with the 1948 election of the National Party in South Africa and their subsequent attempts to forge a national medical service based on apartheid policy. I shall focus on the ways in which anthropology has been used in the past to inform epidemiology and to contribute to medical practice in the form of health delivery. It is my hope that an understanding of this past cannot only help to inform the future about the possibilities and opportunities that present themselves through an exploration of the nexus area of anthropology and medicine, but that it can also remind us of the total cost of apartheid, in this case the cost of destroying progressive initiatives and cleansing our academic and medical institutions of creative thinkers who sought to make a difference.

Indeed several of the first major textbooks in medical anthropology include a description or at least a mention, of this early South African work, such as is found in Janes et al. 1986, Foster and Anderson 1978, Logan and Hunt 1978, McElroy and Townsend 1989. South Africa also featured in both Paul's and Scotch's previously mentioned formative academic articles of 1963. This review impressed upon me the fact that several early researchers and practitioners working in South Africa were decades ahead of their overseas colleagues in exploring the possibilities of an anthropology-medicine collaboration. Scotch himself was a research fellow associated with early innovative projects in South Africa (see Scotch 1963b). Writing in 1978, Logan and Hunt argued

that Scotch's study of hypertension among the Zulu of KwaZulu-Natal was one of the best and most comprehensive pieces of medical anthropological research ever. A decade later, McElroy and Townsend (1989) supported Logan and Hunt's argument, while suggesting that it was time to update Scotch's (1963b) excellent study on migration and disease among the Zulu.

### **Pholela: A village, an Experiment**

South Africa has clearly played a very important role in the development of contemporary medical anthropology. Some researchers such as Trostle (1986:61) refer to South Africa as "the scene of the most important anthropology/epidemiology collaborative effort this century". In fact, most of the people involved in this and other innovative projects which combined social science and medicine went on to become the fathers and major proponents of this disciplinary cross-pollination overseas. Who were these people and what exactly were they doing? How were they trained and where were they trained? What was the nature of these 'progressive' projects? Where were they started? Were they successful? What became of them? Perhaps most importantly from an academic point of view, what became of those associated with the projects and their intellectual legacy? What follows is an attempt to answer these questions.

During the 1920s and 1930s many western nations including Great Britain, the United States, the USSR and the European continent in general became interested in developing a national health insurance and/or a national health service (Janes et al. 1986). South Africa followed suit with many people having an interest in developing new health programs and new legislation to address the growing medical needs of the time. Two such people were Emily and Sidney Kark, physicians from the University of Witwatersrand. Through their association with the South African Institute of Race Relations in the early 1930s, they had cultivated a close relationship with Winifred Hoernle, a leading anthropologist at the University at that time.

According to Trostle (1986), while still students the Karks formed a 'Society for the Study of Medical Conditions Among the Bantu'. During

the meetings of the Society, ideas concerning sociocultural aspects of health and illness among the country's African population were debated. In 1939 Sidney Kark was selected by the Ministry of Health to head a new health unit in rural Pholela, a small African community at the foothills of the Drakensberg mountains in what is now the province of KwaZulu-Natal. The Pholela Health Centre was intended to be a pilot project for developing ways in which effective and appropriate health services might be delivered to rural South African communities (Kark and Steuart 1962). Results from the work at Pholela were intended to form part of a data base that would be used to argue for new health legislation which was increasingly being seen as an urgent need (Gale 1949).

Doubtless there may have been political ambitions behind the experiment at Pholela, but this should not distract from the fact that something unique and potentially of great value to a developing medical system (and a developing anthropology) was initiated at Pholela. In 1940 the Pholela Health Centre was established, with the Karks wasting no time in carrying out what was essentially an ethnographic survey of the area. This included gathering a basic census of the population, studying household structures, social organization, local political organisation, and the start of collecting life histories (Kark and Steuart 1962). The Karks then hired a staff of seven Zulu-speaking health assistants and who also acted as cultural informants. From its inception the Pholela Health Centre was concerned with the social and cultural life of the communities it served. From time to time key representatives from the communities were invited to join staff meetings in order to share their experiences and perceptions of the Centre's work. According to the Karks (1981), these exchanges served two major purposes.

First, they helped to bridge the gap between traditional Zulu health beliefs and practices, and the staff's western biomedical beliefs and practices. Second, they served as constant reinforcement for the staff, of the necessity of gaining an insight into the sociocultural factors that affected their work.

The Karks and their assistants spent a full two years primarily engaged in what could be called anthropological fieldwork. After this time they

were ready to launch a general medical clinic, a maternal and child health programme, a nutrition education programme, and initiate a comprehensive epidemiological project. All of these projects were based upon the Karks' original concept of 'Community Health Diagnosis' which included the monitoring of the community's health status (using anthropological techniques) and identifying targets for intervention (Kark and Steuart 1962).

According to the Karks (1981), the 'total shared experiences of community members' were deemed necessary to consider when formulating hypotheses about the processes determining health and illness as a basis when making a community health diagnosis. This included an analysis of the following:

1. Cultural processes, having particular regard to the framework of knowledge, beliefs and customs of a particular cultural group relevant to the condition under consideration;
2. Common constitutional attributes of the group, whether genetic, social or other significant relationship;
3. Exposure to common habitat, the group's social environment as well as the physical and biological environments.

Thus, the Karks' form of Community Health Diagnosis was clearly based in large part upon data generated and insight gained through the application of anthropological theory and method, a fact which the Karks (1981) fully acknowledged.

The reputation of the Pholela Health Centre for delivery of effective and appropriate health care in a rural environment grew rapidly. According to Kark and Cassel (1952), medical professionals and students throughout the country soon started to flock to the Centre to have a look for themselves. Many of them stayed to participate in the research or the health education programmes. One such interested person was Dr Henry Gluckman who, in 1942, was appointed to head a commission of inquiry to investigate and recommend ways for improving health services in the then Union of South Africa. So impressed was Gluckman by the work being done at Pholela, that his final report (called the Gluckman Report of 1944) recommended that a large number of new health centres throughout the country be constructed, organized

and administered according to the Pholela model. By all indications, the experiment of Pholela proved successful.

Much has been written about the recommendations of the Gluckman Commission (see for example Gale 1970, Savage 1979, de Beer 1984). Some criticized the report, saying that the type of medical system it hoped to create would be one to suit the interest of the industrial elites (de Beer 1984). But by all accounts, the authors and critics agree that the issuing of this report must be considered as one of the most remarkable events in the history of health services in South Africa. The report stands out as one of the most far-sighted, enlightened, and most uncompromising of similar commission reports of its time (de Beer 1984). For example, the report included statements such as the following:

- Blame for the unacceptably high level of disease is largely due to social and economic conditions.
- Health services of the day are inadequate, uncoordinated and misdirected.
- Prevention of ill health should be put above the curing of disease.
- There should be good, free health care within the reach of every person in South Africa.

These ideas were considered to be widely radical at the time. It is ironic that more than half a century later, exactly the same statements are being made within the new democratically elected government's health ministry, and they are being heralded as something fresh and progressive.



## **Spin-Offs of Pholela**

With the issuing of the Gluckman report and the experiment at Pholela enjoying national renown by 1944, the then Chief Health Officer of the Ministry of Health, George Gale, was motivated to act swiftly upon the Commission's recommendations. In 1945 the Institute of Family and Community Health (IFCH) was established in Durban to train staff for the envisioned new health centres to be built around the Pholela model. Gale aimed to establish 44 such health centres before the close of the decade, and did succeed in building 40 (de Beer 1984). The Institute of Family and Community Health (IFCH) included 6 out-station units in and around Durban. These were set up to explore ways in which the Pholela model and the concept of Community Health Diagnosis could be applied to more urbanized communities of various incomes and ethnicities (Kark and Steuart 1962). The Pholela model remained as the rural component of the IFCH.

With the establishment of the IFCH in 1945, the Pholela model of incorporating social science into health care delivery promised to blossom into the nationally accepted way of addressing health care in South Africa. At a time when medical anthropology did not even exist as a field of study, the IFCH began training staff in ways to incorporate anthropology into health practice, what today might be called clinically applied anthropology. The staff were trained in ways to gather information and analyze local belief systems and patterns of behaviour including family relationships, social structure, traditional healing, witchcraft, poverty and beliefs surrounding food and work (see Kark and Cassel 1952). Anthropologists such as Hilda Kuper, then a senior lecturer at Natal University, helped to strengthen the social science component of the work carried out at the IFCH by attending case conferences and pursuing medical anthropological research in the communities served by the institute (Kark and Steuart 1962).

The work at Pholela and the more high profile IFCH also attracted international scholars. Some like Jack Geiger, an American medical student, were interested in further investigations on the influence of the sociocultural environment on health. Geiger served as an intern at the IFCH in the late 1940s and went on to become an extremely influential

personality in the social epidemiology movement in the United States (Susser 1985). Geiger (1971) later started a rural health centre in Mississippi where he applied the Karks' concept of Community Health Diagnosis. Other scholars were anthropologists like Norman Scotch who spent 18 months at the IFCH doing research on hypertension among the Zulu. His now famous study entitled 'Socio-cultural factors in the Epidemiology of Zulu Hypertension' (Scotch 1963b) is described or at least mentioned in several early editions of medical anthropology textbooks (see Foster and Anderson 1978).

By the late 1940s the Pholela Health Centre and the IFCH were what could justifiably be called leading centres for medical anthropology research and practice. The success and effectiveness of health care delivery itself provided visible proof of the benefits to be derived from incorporating social science into health care delivery. Having achieved their task of establishing the original experimental centre at Pholela, the Karks decided to pursue fellowships for further study at Oxford. That year, 1947, John Cassel was selected to replace Sidney Kark as Director of the Pholela Health Centre. The Karks' chosen area of study was, not unpredictably, the intersection between anthropology and medicine (Kark and Cassel 1952).

### **Nipped in the Bud**

The Karks hoped to return to South Africa with a deeper understanding of the impact of sociocultural phenomenon on a population's health-illness profile, and how this understanding could be more effectively applied to epidemiology's distinctive domain (Trostle 1986). At Oxford the Karks divided their time between the Institute of Social Medicine and the Institute of Social Anthropology then headed by E E Evans-Pritchard. Along with Evans-Pritchard, their professors in anthropology included Meyer Fortes and Max Gluckman, all leading figures in British anthropology. Trostle (1986) notes that it was in Gluckman's methodology seminars that the Karks analysed much of their Pholela data. Among their colleagues the Karks counted Elizabeth Colson, Clyde Mitchell, John Barnes and Paul and Laura Bohannan, scholars who went on to contribute much to the development of 20<sup>th</sup> century

Africanist anthropology. No doubt the Oxford experience must have provided the Karks with a fine training in anthropology. Upon their return in 1948, Emily and Sidney Kark could justifiably be considered as South Africa's first fully trained, professional medical anthropologists.

But 1948 was hardly to be a year for applying progressive ideas in social medicine or anything else. For one thing the recommendations made by the Gluckman report before the Karks' departure continued to meet with sharp opposition from the Medical Association of South Africa. According to de Beer (1984), attempts to establish a National Health Service were interpreted by the then-government as attempts to undermine and encroach upon the legitimate rights of private practice. By 1948, the 40 health centres established by George Gale were starved of government finances and administrative backup. For the conservatives of the time, the term 'social' medicine sounded far too much like 'socialised' medicine. As Minister of Health, Galé (1946) found himself forever defending and explaining the concept of social medicine as something distinct from socialized medicine.

According to de Beer (1984), Gale was eventually to concede that his explanations fell on deaf ears. The proposed National Health Service and the promise of developing a socioculturally-attuned medical model in South Africa were stillborn. The final death knell came with the newly elected Nationalist government of 1948, which moved quickly to establish its infamous policy of apartheid and apply this policy to all aspects of life in South Africa. The medical profession was affected at every level by laws regulating almost every aspect of medical practice, including such detail as the colour of nurses who may supervise other nurses and the segregation of 'white' from 'non-white' blood used for transfusion purposes (Stein et al. 1957).

By the mid 1950s the proponents of a more equitable and appropriate National Health Service could see their hopes and dreams slipping away. Before the end of the decade, almost all of the 40 health centres, including Pholela and the IFCH were closed down by the government. Some survived by being handed over to provincial administrators to become ordinary clinics (de Beer 1984). The political disillusionment and professional disappointment that confronted the Karks upon their

return to South Africa, resulted in their immigration out of the country in 1957.

The Karks settled in the United States. With them South Africa lost two of its most highly motivated and energetic medical professionals whose intellectual orientation and everyday work would most certainly have spurred the growth of a model anthropology/epidemiology collaboration. Sidney Kark became Chair of the Department of Epidemiology at the University of North Carolina at Chapel Hill. According to Goethals and Kaplan (1968) one of his first tasks was to recruit a member of the anthropology department to accept a joint appointment in epidemiology.

### **The Pholela Legacy Abroad**

Not surprisingly, the UNC at Chapel Hill is often cited when tracing the roots of contemporary medical anthropology in United States (see for example Paul 1963, Alland 1966, Logan and Hunt 1978, Janes et al 1986, McElroy and Townsend 1989). Anthropology and epidemiology enjoyed and still enjoys a strong and fruitful marriage there. For over 30 years students have been drawn to Chapel Hill from all over the world to pursue their interest in the border-line area between anthropology and medicine. From his base at Chapel Hill and later at Hebrew University in Israel, Sidney Kark further developed and published his ideas on community-oriented medicine incorporating anthropology (see Kark 1981). Most recently, the Karks (1999) have described what was essentially their lives' work in a book entitled *Promoting Community Health: from Pholela to Jerusalem*. Here the authors reflect on the value and impact of their efforts over several decades to work amongst vastly different population groups. From the point of view of these experienced practitioners integrating social science and medicine can result in better, more effective health delivery.

Many other team members from Pholela and the IFCH also left South Africa around that time. Not surprisingly, the end of innovative projects that combined anthropology and medicine in South Africa marked the beginning of such programs in other parts of the world. What follows is a list of some of the early Pholela associates who left South Africa and

the places where they continued their work. It is a sad reminder of a country's lost potential.

**Table 1 The Spread of Human Resources from Pholela and the IFCH**

1.	Emily and Sidney Kark	USA (UNC Chapel Hill) Israel (Hebrew University)
2.	John Cassel	USA (UNC Chapel Hill)
3.	Guy Steuart	Israel (Hebrew University)
4.	Helen Cohn	USA (Harvard University)
5.	Hilda Kuper	USA (UCLA)
6.	Jacob Abramson	Israel (Hebrew University )
7.	George Gale	Uganda (Kampala Medical School)
8.	John Chesler	Israel (Hebrew University)
9.	John Bennett	Uganda (Kampala Medical School) Kenya (Institute of Preventive Medicine)
10.	Mary Cormack	Ghana (National Institute of Health)
11.	Benjamin Gambel	Israel (Hebrew University)
12.	Harry Phillips	USA (Harvard, Boston-Dept of Health)
13.	Eva Salber	USA(Harvard, Boston University)
14.	Charles Slome	USA (UNC Chapel Hill) Israel (Hebrew University)

A whole network could be developed from this list that includes the students trained under the above people and the institutions to which they became attached.

The closure of Pholela and the IFCH resulted in a tremendous loss for South Africa, but it did ensure that the human resources, their ideas and methods would take root and grow worldwide. Those who went to the US arrived at a time when the term 'medical anthropology' was beginning to be heard in the halls of academia. According to Foster and Anderson (1978) the early 1960s was the time when American anthropologists woke up to the potential that this sub-discipline offered as an area of study. There can be no doubt that the work pursued by these South African self-imposed exiles did much to further spur the

development of this newly emerging field. Perhaps John Cassel, second director at Pholela, deserves special mention. Like Sidney Kark, he went to UNC at Chapel Hill. He later became Chair of the Epidemiology Department and continued to make that institution a leader in joint academic appointments in anthropology and medicine (Goethals and Kaplan 1968). According to Trostle (1986), Cassel is credited with pioneering strategies to measure the health effects of social and cultural change. (See for example Cassel, Patrick and Jenkins 1960, Cassel and Tyroler 1961, Cassel 1964). Syme (1983) notes that Cassel's (1976) work on the effects of the sociocultural environment on host resistance has been cited more than 400 times and acknowledged as a milestone publication in epidemiology. Indeed, the intellectual legacy of rural Pholela and the IFCH has played a great role in fostering a cross-discipline liaison between anthropology and medicine, a liaison whose value and potential is only now beginning to be recognized.

## CONCLUSION

Although it was an as-yet unnamed field, medical anthropology in theory and practice was alive and well at the Pholela Health Centre and the IFCH during the 1940s in South Africa. The research and work pursued there has been noted for both its high level of anthropological sophistication (Trostle 1986), and for its contributions made to the field of epidemiology – some of them have not been rivaled this century (Susser 1985). South Africa at this time was poised to develop a national health delivery system that could have provided a model for the rest of the world. It could have been a system where the social sciences, particularly anthropology, played a vital role in informing the medical system every step of the way.

As the Karks envisioned it, anthropology would have contributed to the identification and understanding of a community's health problems, directing the focus of curative and preventive measures, delivery of acceptable medical intervention, and finally to evaluating the effectiveness of these measures (Kark 1981). It is of much interest to note that the Karks' model of community medicine, as described in

Sidney Kark's 1981 publication, was promoted in the 1980s by the United States Department of Health as "a workable goal for medicine in the US" (Mullan 1982). It was probably not coincidental that the 1980s marked the beginning of both the rapid growth in the representation of social sciences in the curriculum of medical education in that country (see Bergner and Gilson 1980)), and the sharp increase of anthropologists working in clinical settings (see Kleinman 1984).

In South Africa, some sixty years after the Pholela experiment, health planners are still grappling with questions surrounding the form of an effective and sustainable health delivery system. The government-of-the-day has pinned its hopes on a district-model of health delivery at a time of dwindling financial resources. Overcrowded, under-resourced government health centres are currently battling in the face of a burgeoning AIDS crisis that is just beginning to unfold. There can be no doubt that had the work at Pholela and the IFCH been allowed to continue and to spawn a network of similar health centres nationwide, a more effective and better health delivery system would exist today. In consideration of the recommendations made by the Gluckman Commission, had they been implemented, the very nature of health delivery in South Africa would have been altogether different.

### **South African Medical Anthropology**

After half a century of dormancy we may only speculate upon how anthropology in South Africa might have grown had its early marriage with medicine not been annulled by the apartheid regime. Perhaps we would have seen some of the following; anthropology in South Africa having developed a well-established collaborative relationship with medicine; anthropologists holding joint appointments in medical schools or hospitals, anthropology featuring as a prominent component in the nursing curriculum; anthropology students doing fieldwork in clinic settings; and medical anthropology as a sub-discipline being in a much more advanced stage of development. Finally, if it had developed an 'applied' dimension that addressed the health needs of the people, anthropology as a discipline may have been in a better position to salvage its reputation (justified or not) as an academic hand-maiden of

apartheid, a reputation that has not helped to save anthropology departments nationwide from being collapsed into larger university 'schools' or closed altogether, as is the current scenario facing many anthropology departments in South Africa today.

As we move into the 21<sup>st</sup> century and there continues to be calls for a unified, sustainable and effective national health system, perhaps it is time for anthropology and medicine to pull closer together, not only in South Africa but in Africa more generally. There are numerous ways, many yet to be defined, in which the border area between anthropology and medicine can be explored to yield information that can be of mutual value to both disciplines. Like medicine, medical anthropology has many different areas of specialisation. In this paper, I have concentrated on the ways in which anthropology has been used to inform one speciality of medicine, that is epidemiology, and to contribute to a more effective and culturally-sensitive health delivery system. Janes et al (1986) in his book entitled *Anthropology and Epidemiology* suggests a few ways in which anthropology can continue to inform epidemiology and medical practice. These would include anthropologists doing some of the following:

- Assisting in the design of epidemiological surveillance techniques
- Helping to phrase questions for the therapeutic interview in indigenous terms and concepts
- Questioning potential interviewer effect and informant recall bias
- Collaborate in designing epidemiological studies, adding knowledge of cross-cultural variability
- Having an understanding of illnesses that relate to so-called 'culture-bound syndromes'.

Finally anthropology could contribute to more complex theory formation on such things as the health effects of social networks (Kaplan, Cassel and Gore 1977), cultural change (Tyroler and Cassel 1964, Marmot and Syme 1976); migration (Janes and Pawson 1986, Fleming and Prior 1981); modernization and rapid urbanization (Hackenberg et al 1983, Zimmet and Whitehouse 1980). These are but a few ways in which interdisciplinary cooperation between anthropology and epidemiology can be transformed from a relationship of benign neglect to a more



active and general collaboration that could help address and find solutions for some of the more pressing health challenges today. As studies by Hahn (1995) and Campbell and Williams (1996) make clear, the epistemologies of both fields of study are essentially complementary and only a deeper understanding of human illness and more effective intervention strategies can result from a collaborative arrangement.

As we enter the new century, many modern medical practitioners are starting to realize that the western scientific medical model is in need of expansion. Particularly in regard to its practice in our African context, scientific medicine

can only be said to have had limited success. To the South African government's credit, recent moves have been made to officially recognize and foster collaboration between so-called 'traditional' healers and the modern medical establishment. The trend towards a more inclusive medical model must continue, with contributing the study of anthropology, sociology, psychology and economics contributing to an expanded, more holistic approach to human health and illness. The experiment in collaboration between anthropology and medicine that started in the small village of Pholela over half a century ago is an idea whose time has surely come. It is time to rediscover and learn from South Africa's past mistakes, and most especially to build solid foundations that will help to ensure that similar mistakes (and the resulting brain drain) are not repeated in the future.

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