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Rituals of health information in South Peninsula district, Cape Town, South Africa

Diana Gibson

Anthropology and Sociology, University of the Western Cape (South Africa)

Introduction

The creation of ritual has contributed to increased understanding and analysis, as well as more effective utilisation of data collected as part of a health information system (HIS) in municipal facilities of the South Peninsula District of Cape Town, South Africa. In this process, cultural brokerage has played an important role in establishing greater acceptance by staff of the new dispensation.

> *«We do it, the site HIS [health information systems] presentations regularly and also the TB [tuberculosis] quarterlies ...now the RMR [routine monthly report], the way we present and analyse it has become very similar in its practice. Like the TB meetings, every three months we go in, sit down, get up one after the other, take the zero tables and check them, check them with Dr B, enter the data you know. Then it is show time, putting the stats, graphs, and the pie charts on. Dr B comes, people stop talking, we give attention, each one goes to the front to do their thing... it has a pattern, it is not so chaotic anymore, even when we do not really understand all the time, we all go through the motions... It represents what is happening out there, our services at base line, our clients, the problems, how we relate to other facilities... but mostly we are getting a handle on it.» (Professional Nurse).*
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> *«Dr B made the difference, she keeps on going back and forth between the stats, the RMR [routine monthly report] and what it actually means on the ground, in the clinic, how it reflects what we do here. She understands the RMR, she knows what happens in the clinics as well, and she picks it up all the time, relating it. It is almost like show and tell, but with a lot of meaning behind it.»* (Clinic Manager).

The above narratives by professional nurse practitioners capture two important issues that help make the implementation of a HIS in municipal health care facilities in the South Peninsula district (1) relatively more successful than that of the provincial administration of the Western Cape. The first involves a process of ritualising the presentation of a HIS through the production and presentation of the routine monthly reports (RMR) and its feedback sessions as analytical bureaucratic and pedagogical performances.

The second relates to mediation by a specific person who continuously brokers between the everyday working world of health care provision and the technological health information system (HIS). This is relevant when the relatively successful implementation of the health information system and use of the RMR in municipal facilities in South Peninsula are compared with the Western Cape Provincial facilities, where it was not utilised in the same way.

These issues can perhaps best be understood against the background of ongoing change and transformation in the South African health care system since 1994. It was an effort to provide more uniform, equitable and responsive health services (Heywood & Froestad 2000), that are driven by Primary Health Care considerations and are open to all sectors of society. The Health Information Systems Pilot Project (HISPP) is aimed at developing a district-based Health Information System in the Western Cape and is guided by a Primary Health Care approach (Healthlink 1998). However, the status and success of this enterprise is filled with contradictions and a confusion of categories. For example, discourses on health statistics in South Africa portray pre-1994 data sets as racially segregated, biased, untrustworthy, fragmented, discredited, unrepresentative of 'reality' and open to political manipulation. For effective delivery of health care service there needs to be order, cohesion and pattern. Consequently, setting up and developing a health information system (HIS) for the various districts in the nine provinces of South Africa was viewed as a way to make available:

> «A constant supply of reliable information to enable it [the health service] to plan, implement and evaluate tasks that are needed to run the district.» (Ramduny *et al.* 1998: 4).

A comprehensive health information system (HIS) that originates at local facility level and subsequently feeds into provincial and national information systems were seen as an essential part of such a process. A general aim of the development of HIS was to utilise the collected data to enhance strategic planning and policy formation, monitor health care delivery, evaluate specific health programmes and assess the progress of district health plans as well as provincial and national health strategies (ANC 1994: 81).

Health services per se are supposedly becoming more business-oriented and health information can be vital in running a responsive service while helping to control costs. The implementation of a health information system involves the acquisition of certain technologies and technological skills, but it also requires insight into and impacts upon the cultural and political issues that determine the success or failure of such a system (see Campbell *et al.* 1996; Hackey & McBride 1995).

I focus on three interrelated issues that can help give insight into the above requirements. The first was reflected in documents and training concerned with the implementation of the Health Information System (HIS) and related to an emphasis on the 'creation' of an 'information culture' and of people 'taking ownership'. Although the necessity of such a progression was stressed, in reality, the process was very complex and uneven and it needed to be sustained over time – well beyond its implementation, and the subsequent training workshops for staff working in health facilities.

A second aim was to show how the ordinary actions of engaging with the HIS, through the presentation of the RMR and feedback sessions, could gradually transform mundane activities into ritualised performances. Where this occurred, clinic staff seemed to be more inclined to display a sense of co-ownership. The third focus was on the brokering role of a person who guided and mediated the enactment of the realisation of the aims and objectives of primary health care through quantifiable 'health facts' or statistics as a science of public health and a tool to chart and display its progress. The above-mentioned Dr. B, the health information systems co-ordinator, adopted this brokering role for South Peninsula Municipality.

The research for this paper was conducted during 2000 and it involved several months of observation of meetings at which health information and the routine monthly reports were presented. Towards the end of the year, interviews were conducted at six clinics and two Community Health Centres (CHC) in South Peninsula. Informed consent was obtained and the identity of participants has been concealed.

Implementing the District health information system

Relating information systems and social practice

In the District Information System Model, the district data base is situated at a district information centre that links up the various role players or constituencies, and collects, collates and analyses data. However, such a system cannot simply be acquired and implemented without the important component of human agency. Successful implementation involves a complex and long-term process of socialisation of role players into an 'information culture' through a process of learning and practice, as well as organisational and managerial change. Only if everything is in place will it be possible for the people at local level to take 'ownership' (see Heywood & Magaqa 1998; Health link 1998).

Although information systems are constructed as somehow rational and neutral, this is not necessarily correct. Behind the concern with generating a body of data through a health information system lies a particular Information Science epistemology, which assumes that knowledge and the information that illuminates it are somehow objective, absolute, based on extensive, empirically generated, verifiable evidence and facts, generated through certain prescribed procedures, logically analysed and which can be tested and replicated in return (Gibson 2000: 8; Lett 1997:3).

However, the HIS is embedded in the social and political context of which it is part and cannot be separated from practices and relations in the workplace. The information required involves different layers not only of data, but also of activities. The data is collected at facility level. Thus involves the health workers in particular facilities and administrative staff at each site, after which the raw data has to be collated and processed for the RMR (see Attachment 1) so that it can be analysed and produced in some or other format such as graphs, reports etc. Finally, the data has to be utilised in some way. All these layers involve the active participation of a variety of people at different levels (Hackey & McBride 1995; Braa & Hedberg n.d.).

Since many categories of people were involved in the process of setting up, updating and utilising health information systems, it was necessary to consider how the different levels moved between their routine working-world and a health information system, what the potential areas of conflict and misunderstanding were, and how effectively the system implemented. What transpired was a process in which health caregivers learned to cope with the everyday contingencies of service delivery, as messy and unpredictable as this was made by having to deal with a myriad of minor emergencies. This had to be 'translated' into and presented as the apparently rational, yet very restrictive descriptions captured in HIS, which were supposed to be representative of the services they delivered.

Training staff in an Information System

Selected staff members were instructed by a health information systems pilot project (HISPP) trainer in South Peninsula, Ms A. She familiarised the staff in the use of the computers, the relevant programmes and the technicalities of setting up a data system like the RMR. She taught them the precise definitions for each data field and how the required indicators should be calculated, how to use range and validity checks, and how to import and export data. She also showed them how to use the computer with confidence and familiarity, how to deal with incompatible computer programmes and problems, and how to use e-mail. Staff was cautioned by Ms A not to change minimum and maximum values in the programme, and exhorted to acquire skills needed to enter data, etc. Ms A stressed the importance of the sustainability of the whole process that staff should "take ownership" and "train their own" (field notes: 17/3/2000). It was clear from the input that what was envisaged was a process of diffusion of the skills, knowledge, attitudes and practices related to the HIS. Despite her ongoing emphasis at HISPP meetings on buzzwords such as "creating an information culture" (field notes: 17/3/2000), observation over a period of months indicated that this complex process did not happen without agency.

For the implementation of a useful and viable information system, it was important that some way should be devised to mediate between the understandings and perceptions of the different players or stake holders, and to find the commonalties between them. By the time the active participation of Ms A, the HISPP trainer, had come to an end there was little indication of the existence of an 'information culture' or of 'ownership', other than rhetorical statements.

At this stage the HIS was perceived by nursing staff in South Peninsula Municipality (SPM), who collected, collated, captured and forwarded the data, as an "imposition from above, from management" (field notes: 17/3/2000). The RMR and the data required were not really designed to address the facility-level information needs of staff and a deep concern was expressed that the RMR did not reflect the content and quality of the work done.

In the case of community health centres (CHC's) run by the Provincial Administration in South Peninsula Health District, the RMR was collated by an Information Officer, an administrative staff member specifically trained for this purpose at workshops presented by the HISPP trainer. Although nursing managers said that they utilised the routine monthly report (RMR), they complained bitterly about medical staff who did not complete the forms. The common perception was nevertheless that the RMR:

> *«Is purely what I would call numerical data, you know: how many patients do you see, how many patients do the doctors see, and how many patients does the sister see. It doesn't tell you really very much about the problems of the centre», or «we basically have two sets of data. Those we keep for ourselves, we have worked out over the years our own data sets and we rely on it for the running of the clinic. The RMR is stats we keep for province.»* (Nursing Managers).

According to Braa & Hedberg (n.d.):

> «When the bulk of health staff are engaged in collecting data for others, when they have no influence over what they collect, when they are barely involved in analysis of data, when computerised tools used are inflexible 'black boxes' reducing their operators to mindless keyboard pushers, when they don't get feedback and don't use information for local management – then the structures thus constituted are those of disempowerment. Given this, it is obvious that such information systems and technologies are not neutral but have politics, meaning and behaviour inscribed into them.» (see Akrich 1992; Pfaffenberg 1988; Winner 1986).

Previous research indicated that existing structures and power relations were often reinforced by the ways in which information was processed and disseminated. The fact that the kind of data processed as well as the purposes for which it was used were often indicative of dominant paradigms – whether these were organisational, in terms of constructions of the 'validity' or trustworthiness of certain kinds of knowledge or whether they were aimed at 'local' (clinic) or managerial use was very important (see Braa & Hedberg n.d.).

Who has access to information, as well as the ways in which it is utilised for making decisions, is representative of existing paradigms and relations of power and can reshape social 'contracts' in a variety of ways. Research has shown that:

> «Data/information is often either not used at all, it is used because information symbolises a commitment to rational choice, it is used as a weapon in dominance games or is subject to 'strategic misrepresentation' (Feldman, March, 1981) or e.g. to support policies (e.g. macro-economic cost-cutting or privatisation) not directly linked to health policy targets.» (Braa & Hedberg n.d: 4).

For a health information system (HIS) to be implemented in such a way that it became useful to and was utilised by decision makers at all levels, a long-term, relatively intensive process of change in a shared organisational template and body of learned behaviours and systems of meaning had to be developed. In the case of HIS, this included the acquisition of the 'language' or code of information systems, its distinctive techniques and its products. Ultimately, staff had to utilise this framework in order to make judgements and to guide their understanding and behaviour. Within the health care system itself there were a variety of learned values, norms, beliefs and practices shared by health-care givers that guided their thinking, decisions and actions in patterned ways (Pickett 1993). Such a shared framework is normally effective enough to be considered valid and to serve as the shared basic assumptions of a group that, in turn, use it to solve problems (Schein

1992). However, as Kaufert and Putsch (1997) point out, even while sharing similar culturally informed norms and values as health care providers, there might be differences in understanding and approach as to what is regarded as important principles and information in the decision-making process for service delivery at particular facilities or levels, and of what is necessary for such a process to happen. This in turn impacts on ways in which an information system is perceived, approached and utilised or not utilised.

This was particularly apparent in the Community Health Centres managed by Provincial Administration of the Western Cape (PAWC) and, according to a Nursing Manager:

> *«We have the quantitative measurements like the RMR ... but we never get feedback on our statistics. Of what happens. How we are doing. We collect and collect... The RMR could be much more useful, so we can actually plan and adjust our services according to the weak spots and the shortcomings. But the information has to be accurate. We do not have information about patterns of patients' use of the services... The doctors are not really collecting information for the RMR... they are reluctant and we have to keep after them. So, we have a kind of blind spot in our services when it comes to the doctors..., each day has its own complications and you have to deal with it. I plug the holes so we can keep on for the day. It is a bit like trauma management – you never quite know what to expect, something can throw a spanner in everything, and you have to deal with it. These kinds of emergencies I am sure will affect the RMR because the stats will not be accurate. Mrs. P [information officer] collates the RMR but we just fit it into our daily routine, ticking off the things. Mrs. P collects all the statistics at the end of each week. Our information goes a long way – from here it travels to Fish Hoek and from there it goes to Woodstock and we do not have email facilities, so it goes with a stiffie, sometimes the stiffie gets lost. We send the internal post to Woodstock – the internal post has many stops and it takes a lot of time to get it around... Generally the information is available and they (management) can inform each other or not at all. I do not know if they can be made to inform each other. A CHSO is by nature more complex than a clinic and there are all kinds of different professionals working here. We should be informing each other but we do not necessarily do that.»*

At community health centres (CHC), two kinds of data were collected – those prescribed by the health information system (HIS) and those necessary for providing services at facility level, for the planning and execution of daily tasks. The latter was based on records kept by nursing and medical staff for the needs and purposes of the facility. Such data were analysed as the need arose and utilised to:

> *«Get a picture of the situation, where we fall short, how are we doing in terms of the budget.»* (Interview CHC).

By contrast, information collected for the Routine Monthly Report was seen as:

> *«Stats that go to head office... we don't get any information, no back-up, no feedback.»* (Interview CHC).

Although staff collected data on the tick sheets on a daily basis, it was not analysed or seen as particularly useful. According to a Nursing manager of a CHC:

> *«The data to me just appears purely numerical. You can't make an analysis that would influence how you're going to plan for programmes. To me data if it tells me that 20 percent of my patients are hypertensive the only effect that will have is perhaps on ordering the medication. But it doesn't tell me that the patient is late for his medication, what percentage is late for their medication, what percentage is on time. It doesn't tell me the patterns of how they use the clinic at all. So, to me it's not applicable. I mean obviously the powers that be would like those numbers but I don't... Apparently that data has been stipulated by national government, that's what they want and that's got to be done. Whether we want to do, it or whether we don't it doesn't matter; it has to be done. But we are not any way prevented in collecting what data we think is applicable. So, it's actually up to the sister or the nurses in charge of the facility. As long as she enters the data that they want. But I think most of the managers are now beginning to understand that they're going to have to draw up some sort of relevant data collecting to use later on.»*

In the case of facilities managed by South Peninsula Municipality there was an extended process during which staff learned to cope with often disparate approaches to and views on the kind of information required for good service delivery. In another sense, they also had to learn to mediate between their everyday working and the world of computer technology and information science. The success or failure of their attempt to negotiate the borders between the two depended on the assistance they received and their gradual socialisation into the HIS. In this process someone, or more than one person, had to assume the role of cultural broker.

Ritualising and mediation

Moving between virtual and everyday realities

The HIS is basically about standardisation – bringing together potentially heterogeneous information provided by various people through a variety of methods and transforming it into 'facts'. To become a fact, the information has to be constructed as being 'true' and 'correct' by a number of people over a period of time. It becomes a kind of prototype of information circumscribed by particular parameters, for example certain minimum and maximum values, and is routinely sought, utilised and increasingly perceived to be true. As the information is widely disseminated through information technology it 'hardens' and becomes fact. According to Braa & Hedberg (n.d.), information is often only utilised to a limited extent for daily management, budget allocation and long–term management. Although initial documentation on the implementation of the health information system (HIS) stressed that staff who collected information should also have a say on deciding indicators and designing data collection instruments (District Health Information Guidelines 1998: 165), various participants in the study believed that the routine monthly report (RMR) was pre-designed to meet the minimum data requirements needed for "management decisions" (Fieldnotes 14/4/2000). Getting staff to use it, to take 'ownership' of it, required that they understood that the reliability of the information depended on the people who collected it at the baseline level, entered it into the system and saw to it that entries tallied. Staff at facility level had to be able to access and assess the statistics and to understand it, in order to use it for comparative purposes.

Despite many inherent contradictions, the institutionalisation of the HIS and the RMR in South Peninsula Municipality was fairly effective. To a large extent its success was the result of a constant seeking of common ground between the different participants, this occurred through a process of cultural brokerage and the subsequent ritualising of the presentation of the RMR. According to Clarke (1978), a cultural broker should be able to envisage two or more systems. In the case of the HIS and the RMR it involved a simultaneous understanding of how knowledge and what constituted 'true or valid facts' or information in a specific situation were constructed from different perspectives, like the technology-driven world of information systems and the everyday world of health care provision at facility level. The broker had to find synergies that made the process meaningful and beneficial to all participants. The process of brokerage was an active and increasingly ritualised one of exchanging information, communicating, instructing and mediating between the expectations, beliefs and decision-making practices of the various constituents (Pickett 1993). The cultural broker elicited the various participants' own constructions and understanding of information, unlocked its social and personal meaning and, in conjunction with them, attempted to assess its potential impact on their work-load, role and position in the workplace. Such a process gave weight to the knowledge of people who feared that they might be negatively affected and it created an opportunity to address these concerns. The broker compared the framework of values, beliefs, and practices concomitant with the health information system (HIS) with that of the staff at facility level and assisted in developing a shared model, which maximised the benefits of both systems (see Hall *et al.* 1998).

The role of broker was taken by the district HIS co-ordinator for South Peninsula Municipality, Dr B, who constantly tried to mediate between the particular paradigm from which HIS originated and the everyday working world and knowledge of the staff responsible for generating the information. In the process, she continuously seemed to seek ways to assist staff in understanding the connections between the technical computer-based information system program initiatives, their own work experience, and the needs of the workplace.

Brokering

According to the narratives presented in the introduction, the presentation of the RMR entailed a performance that was differentiated from the ordinary and was enacted at specific intervals in specific spaces. The process of ritualising the RMR as a performance did not happen immediately. In the case of the South Peninsula Municipality facilities, the health information systems pilot project (HISPP) site meetings, where the RMR was promoted, were initially somewhat disjointed gatherings. Despite working in accordance with a HIS agenda, nursing staff broached all kinds of indicators and problems, which they deemed important for their own facilities. The format of the meetings began to change under the guidance of Dr B. At the end of each meeting, staff from particular facilities were assigned tasks concerning the RMR, which they had to present at the next meeting for discussion. Dr B increasingly stressed that the RMR involved a minimum data set that had to be used for management decisions – she also continuously emphasised that clinics had a management function and that the information could be potentially useful for staff. Consequently, ways had to be found to use both the RMR and to develop data sets that were streamlined for the needs of the particular facility. Clinics needed to develop their own statistical bases, while also beginning to use the RMR to understand how their own clinic functioned and how it compared to others. In this process Dr B gradually mediated not only the understanding of the RMR but helped to set up the conditions which would in time turn it into a regular ritualised pedagogical event and display.

Initially meetings began with Dr B referring briefly to the purpose of the RMR and the need for everyone to use and report in this format of a minimum data set. The complex process involved in brokering between different understanding and experiences and turning it into a performance of the health information system, (HIS) is highlighted by the following vignette.

> «The participants were seated when Dr B entered and sat down. All talking ceased and staff turned towards her. She welcomed staff, went through the minutes and set out the agenda. Mrs D, from C clinic handed out graphs and lists, which represented a list of all the medication; dispensed in the clinics over the period of one month. All participants first studied the documents, then sat back and looked at Mrs D, waiting for her presentation. The RMR provides for two categories – All prescriptions issued and All items dispensed per script. The district HIS co-ordinator, Dr B, looked at the list of medication, watched the presentation and said the most expensive drugs were the ones for TB "but it is to be expected, you have a lot of TB at C [a clinic]. But this, why is so much [a certain TB drug) dispensed? You can use... it is less expensive".
>
> The PN (professional nurse) responded that a particular doctor prescribed it and seemed to prefer it, because she said it was "better". Dr B also wanted to know why so many antibiotics of a particular kind were dispensed. A long discussion followed on the habits of local clients who "fill up their prescriptions", "stock up" and "hoard" drugs. Clients apparently preferred anti-biotics over other medication and like to have some stored in the refrigerator or a cupboard. After discussion it was decided that a small campaign will be run to alert people to the fact this can be potentially dangerous and to request them to return unused drugs to the clinic" (field notes 14/4/2000).»

Although the RMR provided for the generation of statistics concerning medication, the two categories used gave no indication of the complexity of the process of dispensing medicine and of client's beliefs and practices concerning medication at local level. The discussion which ensued showed that medication, and the belief in what was efficacious or not, related to the ways in which people understood medicines at a local level. Medicines were thought "to have the power to produce an effect", but efficacy may have different meanings for those people embedded within the framework of natural and/or medical science (Reynolds Whyte & van der Geest 1988: 7) and for those who do not share this conviction. In this case, the nursing staff themselves mediated between the specific understandings of their clients, their expectations for treatments and drugs, of the roles of the health care workers themselves and communicated this to Dr B. The particular doctor's preference for a certain 'brand' of drug also needed to be unpacked and contextualised. Together, the doctor and the staff devised a meaningful and beneficial way to meet the needs of the clients, while also streamlining the dispensing of drugs in a cost effective and potentially less dangerous way, since some of the hoarded medication inevitably expired. This complex interchange was finally reflected in terms of two statistics in the RMR.

The following vignette from a quarterly tuberculosis (TB) meeting illustrates the intricacy of brokering between the local working worlds of nursing staff and the needs of the restrictive RMR in a way which made sense to the participants and showed that the data collected were potentially useful:

> «Staff are busy checking the zero tables and entering the date into the computer for the TB quarterly report. The district HIS co-ordinator, Dr B, comes into the room. It immediately becomes very quiet, the lights are switched off and the different presentations appear on the screen. Dr B points out the form of Clinic A. She says»:
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> *«You sent 20 smears away on one day and nothing for the rest of the week. People will look at it and what will they say? What are you doing?»* [Dr B].
>
> *«We are not working every day, but doctor we are»* [Professional Nurse Practitioner].
>
> *«No, I am not saying you are not working. I will say you work on the old system where you only do TB on a Wednesday. You must remember these forms become the truth. That is what happens. You need to spread sending away specimens, do that on other days as well. The patients are also watching you. They see you do it on a specific day. Then they come that day. Spread the sending of the specimens over the week, to make people see it happens every day, they will learn that fast enough and come every day. Remember they also learn from watching you.»* [Dr B] (Field notes 6/10/2000).

In the above vignette, Dr B first elicited the way in which the service providers thought the statistics might reflect on the way they did their work. She then identified common norms and values between the objectives of the HIS and the stated societal responsibility of the facility. It entailed a learning process whereby staff could recognise a particular trend in service delivery, as well as the positive potential of the RMR for understanding their own facility-based working practices and how they could change them to benefit the surrounding community. To ensure that the learning about, implementation of, and practices around the HIS were both effective and sensitive to specific groups, the broker had to be able to assess the importance and history of certain issues as they related to the particular facility and the community it served. Strengthening and intentionally recognising these connections to the local facility's reality compelled staff to explore their own traditions of service provision. Brokering between participants of practical learning initiatives such as HIS built bridges and made connections that could help all involved understand the significance of the effort.

From the first HIS meetings mediated by Dr B, she stressed the diverse interest groups involved in the implementation of the information system, namely the facilities, South Peninsula Municipality, the Provincial Administration of the Western Cape and the national government. Each of them had its own perceptions of the information needed for good, rational and cost-effective management of health care services. At the South Peninsula Municipality level the most important interface was between the facilities, where the information was collected, and the more generic needs of the HIS programme and 'management'.

According to the District Health Information Guidelines (Health Systems Trust 1998:166):

> «Information from routine monitoring often only points to the existence of a problem – it does not usually explain the causes of, or develop solutions to the problem...»

At a meeting of facility managers in South Peninsula Municipality, the district HIS co-ordinator, Dr B, stressed that staff:

> *«Need to be aware of the stats to reflect and understand on it. You need to always be able to link it up to what happens out there. You must know your facility, know the norms of your facility. Take E clinic, their TB stats look bad. Why is it?»* [Dr B].
>
> *«Our TB cases are low, one person died»* [Professional Nurse practitioner].
>
> *«So if the TB numbers are low, but if one person dies, it looks like a statistical disaster, if you know your facility and you know your facility's population you will be able to say it looks bad on paper, but in reality it is not so meaningful.»* [Dr B] (Fieldnotes 13/6/2000).

By giving staff the opportunity to express unique as well as shared features and practices prevalent at each facility, by stressing the overall commonalties between all the elements involved and brokering between them, staff came to accentuate the common ground within and between facilities, community and management constituencies. As a result of the brokering role of Dr B these efforts were increasingly collaborative, over time, led to more effective, and sustained HIS programme practices.

Over time the mundane actions of "learning HIS" (field notes: 17/3/2000) evolved and gradually shifted into something else, that is, regular ritualised performances at the monthly HIS site meetings (2), Facility Managers Meetings (3) and quarterly TB meetings (4). This process became identifiable through specific performances, which were ordered and spatially and temporally distinguishable from the ordinary (see Kapferer 1984: 194).

Ritualising performance

According to Bell (1992: 74) ritualisation can be understood as a:

> «Way of acting that is designed and orchestrated to distinguish and privilege what is being done in comparison to other, usual quotidian, activities.»

Thus, ritualisation is a process, which involves the situated performance of social practice (Hughes-Freeland & Crain 1998:2). I accordingly move away from Turner's (5) linkage of ritual to the supernatural and rather situate my field observations and interviews in the transformation of ordinary practices into ritualised and performative events to process and present information. I do not give much attention to ritual as representation of the socio-cultural order, but rather draw attention to the process and the didactic nature of many ritualised events (see Handelman 1998: xv).

As indicated earlier, in the case of South Peninsula Municipality the HIS and the RMR regularly formed part of particular kinds of meetings. Once the meeting came to this phase, graphs pie charts, tables or 'raw' statistics were distributed. Dr B gave a short overview of the latest information concerning the RMR, followed by staff presentations. The various indicators for the RMR were displayed on a screen, their meanings highlighted and comparisons made between clinics. In the case of tuberculosis (TB) indicators, Dr B also announced at the end which clinic had the best results as reflected in the RMR. Amidst applause, she then rewarded the winners. Over time, the RMR as a performance developed a distinguishable pattern and sequence, with particular directives. What was happening was the emergence or even the 'invention' of ritual. This understanding was supported by documents used for training in the field of health information systems in the Western Cape, which stressed the need for:

> «Creative analysis, interactive interpretation, ritualised presentation and use of information.» (6)

While ritualising in this way often is not 'officially' supported, the opposite seemed to hold in the case of the performance of the RMR (see Grimes 1990). The participants themselves did not necessarily define it as ritual but others, including myself, interpreted it as such. Furthermore, the necessity of cultivating it was stressed in the health information system documentation. Nursing staff who participated in these performances often referred to the ways in which meanings were articulated in this performance, to bring into existence the reality of the services rendered, its problems, strengths and weaknesses (see Rappaport 1979).

As in the case of the narrative presented at the beginning of this chapter, nursing staff of South Peninsula Municipality stressed the importance of the presentation of the RMR as performances:

> *«Narrative reports, graphs, charts, what it was before, how it increased, where are problems. We look at it each time, regularly, in a formal way and you start to see [when] something is wrong. Maybe someone did not collate the stats correctly and you can go back to them and say the definition is this and are you doing it that way. Also*

> *to see how many of the sick children do we really see. Even if the day hospital sees many of them. When we go to meetings and we see that we normally see 1000 children but this week we saw 2000 then we can see we were extremely busy, and yet you had the same complement of staff and maybe less, because people were off sick. And how you coped. The charts are quite useful and also the pivot tables... we have learned to analyse it... I put it up... and show we have dropped and we compare it to other clinics. It is useful to tell the amount of incidents, whether it is on the increase or decrease. It is a comparative thing across SPM [South Peninsula Municipality]. I keep these things and I can tell you how we have been doing over the whole year. I understand it pretty well now. We worked through it again and again and again and in the end it makes sense to you. You can read it and know what it says, but it is a process. It does not just happen. It becomes familiar, you start to trust it, it becomes more reliable, and more useful. It has been a long process. Last night when I left, I thought how could we have so many family planning in two days of the month. Then I pick it up and see I made an error, I should have added the next two days to that, thinking that it is the week – it is the last two days of the month, so it comes out as two odd days maybe. So you learn to [with the presentations of the RMR] interpret the things you put on here. You need to be familiar with it, and when it is familiar and you can interpret it, it becomes more reliable for you. But that was a very long process. It did not just happen after those workshops. We work through it again and again with Dr. B and with ourselves. It is at least somehow reflecting what we see here every day in reality and we can start to pick up when it does not really reflect what we see every day. You have an understanding of what goes on in the clinic from a lot of things and through this process the RMR has become a component of that – we can start to calibrate the two. Also, because it becomes familiar, it becomes interesting. The format for the presentations has become the same. So you can compare what you did last month – you had a slack period there and you start to compare, are it seasonal, is there some other reason. Also Dr. B is a fanatic about presenting the RMR and she pushes us to deal with it. She takes the trouble to sit with the zero tables and say, no you made a mistake here, let's go through the book. We needed for her to pick up on all those things and then help us to see what, how it relates to us and how it becomes useful, what it reflects and when it is wrong.»* (Professional Nurse Practitioner).

In a sense "show time" (see above), or the performance of the RMR focused on the entire health system including planning, policy, and assessment of services and to an extent the health status of some communities. It was supposed to represent the status quo "out there" of " services at base line", who the "clients" were, "the problems" and relationships and comparisons between different facilities. This was done through a small number of objects like the "narrative reports", "zero tables", "pie charts" and "graphs" which also symbolised the ethos of community health care and the health status of the community to which the services were delivered (see Grimes 1990: 44). At the same time, it seemed to be somewhat paradoxical and incomprehensible to some. As broker, Dr B sustained the main role and narrative in the performance, but there was a great deal of ambiguity in how it was interpreted by her, by other participants and by myself as 'participant observer'. Although it was not understood "all the time", there was nevertheless "a pattern" and staff went "through the motions". According to Bell (1992: 35) participants embody the schemes of perception and interpretation of a ritual and then apply them in the everyday world:

> «Ritualisation is, therefore, a type of creative socialisation.» (Bell 1992: 35).

The ritualised performance of the RMR ultimately communicated its meanings to the participants and to the observers, it involved a process of reflection. In 'acting out' the RMR through the mediation of Dr B a synthesis, or 'calibration', could occur. In enactment (or doing) the meaning of the RMR and the HIS was formulated and articulated and came to be understood by the participants (see Bell 1992; Schieffelin 1985).

As stressed at the beginning of the chapter, there are underlying issues concerning power and control related to the HIS and this was to some extent reflected in the performance of the RMR. After all, it was highly unlikely from the beginning that the role of 'leader' of the performance could have been taken by anyone else (for example a Professional Nurse practitioner). Yet, as stressed by Bell (1992: 221-222):

> «The type of authority formulated by ritualisation tends to make ritual activities effective in grounding and displaying a sense of community without overriding the autonomy of individuals or sub-groups.»

The performance of the RMR accordingly also brought about a sense of cohesion and of solidarity between participants. Although not everyone agreed with it in private, the presentation the RMR was a visible and public performance of the very principles of the public health approach which is supposed to work for equity, be objectives based, centralised, simple, flexible and standardised (Field notes: Health Information Summit: 20/6/2000).

Conclusions

In clinics managed by South Peninsula Municipality, unlike the facilities managed by the Provincial Administration of the Western Cape (PAWC), the RMR had gradually become a performance. It had developed a particular, bureaucratic and didactical design through practice. The 'performance' of the RMR happened within particular spaces and time frames and had become ritualised, visual displays of health care classifications and systematisation.

The entire process and the successful implementation of the Health Information System, including the use of the Routine Monthly Report, depended on the agency of different organisational bodies and people. They did not necessarily have similar expectations or requirements and they brought different levels of expertise and understanding to the task. In clinics managed by South Peninsula Municipality, the process and the relative success of the implementation of the HIS and the use of the RMR hinged on this pivotal process of mediation by cultural brokerage – to explain its intent, give meaning to its content, test its integrity and support and to share it with others. The roles of culture brokering and of ritualising made it possible for the implementation of the Health Information System to deepen and develop over time. It helped to manage the process in a fragmented setting and to de-mystify for the staff the given information system, its knowledge base and technologies while enabling them to utilise it to understand their own facilities, patient needs and services rendered. It made comparisons possible, and individual planning could be tailored accordingly. Where this did not happen, as in the case of facilities administered by the Provincial Administration, there was scant if any evidence of a diffusion of the HIS as a 'culture of information'.

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Attachment 1 – Routine monthly report: PHC services Cape metropole region (14/8/00).

District:

Facility:
Month:
Completed by (Print Name):

Data Category	**Data Item**	**N**	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Total**
Total Attendance at Facilities and on outreach visits	Under 5 years of age	01						
	5 years of age and older	02						
Growth Monitoring	<3rd%ile & = >60% EWA <5 yrs (new)	03						
	<60% EWA <5 yrs (new)	04						
	Growth faltering / failure <5 yrs (new)	05						
	Children under 5 years Weighed	06						
First Contact with Health Service	Babies exam. 1st time up to and including 6 weeks	07						
Development Assessment	Children under 2 years who had develpmental screening done	08						
	Children under 2 years with suspected developmental delay	09						
Prevention Care	Children <5 years seen for prevention services ONLY	10						
Mental Health	Visits Old Clients	11						
	New clients seen	12						
	Clients referred to 2nd level	13						
	Clients referred to 3rd level	14						
	Psychiatric discharge patients seen	15						
Curative Services	Seen by MO	16						
	Seen by PN for curative	17						
	Seen by PN and referred to MO	18						
	Children <5 years	19						
	Children <5 years diarrhoea (new)	20						

Segue tabella

Data Category	**Data Item**	**N**	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Total**
	Children under 5 years with lower respiratory tract infection (new)	21						
	STD (new)	22						
	Males with PUD (new)	23						
	STD Contact Slips Issued	24						
	Number of STD Contacts Treated	25						
Reproductive and Women's Health	Family Planning Clients Seen	26						
	Teenagers <18 yrs using Family Planning Method	48						
	Oral Contraveptives Issued	27						
	Depo Provera given	28						
	Nuristerate given	29						
	IUCD's	30						
	Condoms issued	31						
	Emergency contraception	32						
	Referred for TOP	33						
	Cervical (Pap) smears 30-59 years old	34						
TB DOTS Attendances	Daily TB DOTS Attendance	35						
Personnel	Actual nurse-days worked	38						
	Actual doctor-days worked	39						
Maternal	Booking visits <20 weeks	40						
	Booking visits => 20 weeks	41						
	Antenatal follow-up visits	42						
Chronic Care	Total chronic cases Diabetes mellitus Hypertension Epilepsy							

Segue tabella

Data Category	Data Item	**N**	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**	**Total**
Other	Seen for any other services	47						
Immunisation	BCG at Birth	49						
	TOPV	50						
	DPT; Hib; OPV; Heb B-1st dose	51						
	DPT; Hib; OPV; Heb B-2nd dose	52						
	DPT; Hib; OPV; Heb B-3rd dose	53						
	Measles 1st Dose at 9 Months	54						
	Measles 2nd Dose at 18 Months	55						

Notes

(1) South peninsula health district includes the southernmost part of the Cape peninsula. It roughly stretches from Retreat to Muizenberg and Fish Hoek, but also includes Houtbay. The suburbs involved are: Constantia, Tokai, Noordhoek, Fish Hoek, Simons Town, Ocean View/ Kommetjie, Houtbay, Plumstead/ Diepriver, Ottery/Wetton, Lotus River, Southfield, Bergvliet, Retreat/ Steenberg, Seawinds, Grassy Park, Pelican Park, Muizenberg, Lavender Hill. Due to natural barriers (mountains) and long distances in-between, some communities are relatively far from the nearest health facilities. The district includes some of the most affluent suburbs in the Cape Metropole, as well as some of the most disadvantaged (mostly informal settlements) communities in the city. At the time of the research services were provided by the Provincial Administration of the Western Cape (PAWC) at Community Health Centres and hospitals, while South Peninsula Municipality provided services at clinics and day hospitals. The services were merged in November into a wider unit called he Cape Town Unicity (see South Peninsula health District. Joint Planning 2000 Discussion Document).

(2) This is a forum in which all the staff who are involved in collating the Routine Monthly Report participate. In the case of the South Peninsula Municipality all staff working in clinics are supposed to be able to do this work eventually. Accordingly all clinics will send at least one representative, even if this person is not actively involved in the process at the time.

(3) All clinic managers of South Peninsula Municipality are represented on this forum.

(4) All clinics send representatives to these meetings.

(5) Turner (1967: 19) defined ritual as «prescribed formal behavior for occasions not given over to technological routine, having reference to beliefs in mystical beings and powers.» Turner relates ritual, religious beliefs and symbols, and expresses this interrelatedness in another definition of ritual as «a stereotyped sequence of activities involving gestures, words, and objects, performed in a sequestered place, and designed to influence preternatural entities or forces on behalf of the actors' goals and interests» (Turner 1977: 183). According to Deflem (n.d.) Turner's definition of ritual essentially «refers to ritual performances involving manipulation of symbols that refer to religious beliefs».

(6) Documents for M.Sc in Public Health (Information Systems Track), University of the Western Cape. 2001. Health Information Systems an Advanced Course. Available on: http://www.siu.no/noradcat.nsf/852561.../98f28bf60323c5bac125694a0042ec38?OpenDocumen 5/19/01: p4.

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