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Integration of ART: concepts, policy and practice

The recent implementation of ART in the South African public health sector necessitates renewed debate on the integration of key primary health care (PHC) programmes. Integration of PHC is really best understood in relation to its opposite, *i e* verticalisation or selective PHC. This paper discusses these approaches in international and South African contexts. Integration as it has been applied to HIV, namely the continuum of care and TB-HIV integration, is also considered, with specific reference to the Free State. We then present the "voices" of programme implementers on the theme of integration in this province. Both in the literature and in the interviews with implementers, the need for integration is supported. However, there is also recognition that the vertical and integrated approaches should not be exclusive, but should both feature in ART roll-out, particularly in the inception phases of the programme.

Integrasie van ART: konsepte, beleid en praktyk

Die onlangse implementering van ART in die Suid-Afrikaanse openbare gesondheidsektor noodsaak hernieude debat oor die integrasie van belangrike PGS-programme. Integrasie van PGS word ten beste verstaan in verhouding tot die teenoorgestelde daarvan, dit is vertikalisasie of selektiewe PGS. Die artikel ondersoek dié konsepte binne 'n internasionale en Suid-Afrikaanse perspektief. Integrasie, soos toegepas op MIV, naamlik die kontinuum van sorg en TB-MIV-integrasie, word ook oorweeg, met spesifieke verwysing na die Vrystaat. Daarna volg programimplementeerders in die provinsie se "stemme" oor integrasie. Die behoefte aan integrasie word ondersteun in beide die literatuur en die onderhoude met implementeerders. Terselfdertyd word daar erken dat die vertikalisasie- en integrasiebenaderings mekaar nie moet uitsluit nie, maar dat beide in die implementering van ART toegepas moet word, veral in die aanvangsfases van die program.

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In August 2003, the South African government announced its intention to provide ART to all who needs it. The *Operational Plan for Comprehensive HIV and AIDS Care and Treatment for South Africa*, whilst setting out explicit targets for scale up towards universal access, also calls for a process of health systems strengthening, in which integration is one of several core principles. Integration means in the first instance, that HIV care should not be a vertical programme separate from the PHC system: "The integration of HIV and AIDS care and treatment with existing efforts and interventions will avert the development of vertical systems of care, and will reinforce the national PHC strategy" (NDoH 2003: 55). Secondly, ART should be delivered as part of an integrated continuum of HIV/AIDS care and support:

> Comprehensive care and treatment for HIV and AIDS need to be delivered in an integrated fashion within a coherent overarching public health policy framework for the provision of basic social services as part of the continuum of care (NDoH 2003: 19).

However, despite these policy goals, early observations of the implementation of the *Comprehensive Plan* in the Free State province suggest the emergence of a predominantly vertical, ART-specific roll-out programme (Heunis 2005). In this province, the first round of facilities selected for implementation of the *Comprehensive Plan* consisted of establishing ART staffing, rooms, and administrative and reporting procedures that were distinctly separate and operated differently from the larger facility. Moreover, this verticalisation extended into programme management in the provincial bureaucracy. There was and remains significant political pressure to produce statistics depicting an active ART programme, and in the face of this, vertical implementation of ART in a few well-resourced public facilities in each district appeared as the fastest route to the establishment of the programme.

While this strategy[1] may yield results in the short term, it clearly has its limits. In the face of an already overstretched PHC system and widespread health worker shortages, several commentators have sounded warnings as to the sustainability and the health system opportunity costs of introducing yet another priority disease programme (cf Barron 2003, McCoy *et al* 2005). This certainly appears to present a problem

1 Described by one national-level interviewee as "first picking the low-hanging fruit".

in the Free State Province where a human resource audit conducted some eight months into the implementation process found that most of the advertised posts for the programme were still unfilled, and that staff were being moved from other responsibilities or facilities into the programme (Van Rensburg 2004b, 2005). As pointed out by Barron (2003: 4)

> An ARV treatment programme that is not located within a comprehensive plan to strengthen the health care system, its human infrastructure and its public health management and leadership, will increase inequity and will lead to unacceptable opportunity costs which may include an overall deterioration in health care.

Balancing the need for rapid progress in ART access with the strengthening of the health system raises a fundamental dilemma for the implementation process. Is the immediate priority that of saving lives and therefore establishing a focused and high quality vertical programme; or should energies be orientated primarily towards a slower process of strengthening the PHC system, that will guarantee universal access in the long run? In South Africa the idea of comprehensive PHC is endorsed in overarching health policy frameworks such as the *White Paper for the Transformation of the Health System in South Africa* (NDoH 1997), the National Health Act 61 of 2003 (NDoH 2004) and the *Comprehensive Plan*. However, in their case study of nutrition programmes, Sanders & Chopra (2001) demonstrate how the health service environment is dominated by selective and technicist orientations to health care. How then are the policy principles in the *Plan* being interpreted and actualised on the ground in South Africa? Should the implementation of HIV treatment, including ART, in the public sector be vertical or integrated, or perhaps more correctly, how much of each is required?

These questions form part of a longitudinal research project of the Centre for Health Systems Research & Development entitled *Public sector ART: documenting, monitoring, evaluating and facilitating the implementation of the national treatment plan in the Free State* (cf Heunis & Van Rensburg 2005). The objectives of the larger project include assessing whether the health system can respond to the imperatives of ART and the extent to which ART strengthens or weakens the health system. Integration (and its opposite, verticalisation) is a central theme in the interface between disease/health programmes and health systems. It is frequently referred to as an issue by role-players involved in this

interface, but often with a variety of meanings. The paper thus seeks, first, to establish conceptual clarity regarding the use of the terms "verticalisation" and "integration", and related concepts such as "selective" and "comprehensive" in the literature and in policy statements on the subject. Secondly, it draws on interviews with a range of actors implicated in ART roll-out, mostly in the Free State province, to highlight the current usage of these terms.

1. Methods

The methods included a review of the literature (academic publications as well as policy documents) and interviews with purposefully selected key informants involved in policy-making on and the programme implementation of ART. Due to the vastness of the PHC and AIDS literatures, and because so many authors address integration only in passing, the literature review cannot claim to be exhaustive.

The perspectives of implementers are drawn from 29 semi-structured, in-depth interviews with health managers and workers involved in the implementation of the *Comprehensive Plan* nationally (4), and in the Free State at the provincial (10), district (1) and facility levels (14). While all those interviewed were implicated in the *Plan*, the degree to which ART implementation was their sole function or part of a wider set of responsibilities, varied. The interviews sought to obtain views on the *Plan*'s implementation more generally, in which integration was one of the themes probed. Interviews were flexible and tailored to each respondent with the view to "creat[ing] an event in which the interviewer encourages the respondent to articulate interests or experiences freely" (Lindlof 1995: 163). Subject to the conditions of anonymity, confidentiality and the consent of participants, interviews were tape-recorded and transcribed *verbatim*. Aspects dealing with integration were extracted from the interviews and analysed with two purposes in mind: to identify the commonly held views of implementers on the issues of integration and verticalisation; and to highlight the organisational realities governing choices between vertical and integrated approaches.

The paper begins with a brief mapping of the concept of integration, both internationally and within the policy environment in South Africa, and its historical relationship to different currents of thinking regarding health systems. It then considers how integration has become

part of debates on HIV/AIDS in South Africa, specifically with respect to "the continuum of care" and TB/HIV integration. The "voices" of implementers are analysed in the light of the above, and finally, conclusions drawn on its relevance for future implementation of the *Comprehensive Plan*.

2. Concepts

2.1 International context

Debate on the verticalisation or integration of disease programmes is neither new, nor does it have South African relevance only.[2] The related ideas of selective versus comprehensive PHC have been a source of international tension from the time PHC was conceived. In its vertical form, "PHC focuses on prevention and treatment of the few diseases that cause the most mortality and morbidity and for which there are effective interventions" (Amofah 1994: 76). Verticalisation is often defined in terms of selective PHC programmes of a specialised nature and that opt for technical interventions, primarily on the basis of their cost-effectiveness. These programmes have their own infrastructure, administration and staff. Integrated PHC is a multifaceted and complex concept. According to the *World Health Report 2005*, the purpose of integration is "to tackle the need for complementarity of different independent services and administrative structures, so as to achieve common goals" (WHO 2005: 108). This report defines integration at three levels: at the patient level: "case management"; at the point of service delivery: "multiple interventions are provided through one delivery channel"; and at the systems level: "bringing together the management and support functions of different sub-programmes, and ensuring complementarity between different levels of care" (WHO 2005: 109). Integration is thus a choice that affects programme financing, planning and delivery and ultimately, the achievement of health goals.

A further understanding of the concepts of verticalisation and integration requires attention to their fluctuating histories. In the 1950s,

2 Cf Chatora & Tumusime 2004, Cueto 2004, 2005, Delnoij *et al* 2002, De Pinho *et al* 2005, Gröne & Garcia-Barbero 2002, Hall & Taylor 2003, Schierhout & Fonn 1999, Van Balen 2004.

scientific advances led to the hope that, if modern health care and medical technology were made universally available, disease could be overcome. Several control programmes of endemic diseases were implemented in vertical structures with the aim of eradication. This was indeed successful in the case of smallpox. However, this disease appears to have been historically unique and the hope that other diseases would follow the same path was not realised.[3] For example, due to unsustainably high costs, the malaria eradication programme of the 1960s was not successful outside a limited number of countries such as India, Sri Lanka and the former Soviet Union. No sustained effort was ever made to control malaria in sub-Saharan Africa (Greenwood & Mutabingwa 2002).

Influenced by a "basic needs" approach to development in the 1960s and 1970s, new conceptions of health and health care in developing countries emerged, culminating in the 1978 Declaration of Alma Ata on Primary Health Care and the slogan of "Health for all by the year 2000" (WHO/UNICEF 1978). The *Alma Ata Declaration* called for the provision of comprehensive PHC as part of a long-term social process involving the broader development of communities. It combined the expansion of access to basic care with intersectoral collaboration and participatory approaches, that simultaneously tackled the underlying causes of ill-health.

However, this inclusive approach to health systems soon came under attack in the face of economic crises in many developing countries, as well as global ideological shifts (De Pinho *et al* 2005). "Comprehensive" gave way to "selective" PHC (Walsh & Warren 1979), encouraging a return to disease-specific programmes divorced from their social context and delivered in vertical approaches. An example was the "GOBI" initiative — growth monitoring, oral rehydration, breastfeeding, immunisation — focusing on the major causes of child mortality (Sanders & Chopra 2001). Country political commitment to comprehensive PHC was not sustained after the initial euphoria of Alma Ata, and PHC became synonymous with reducing health expenditure by decentralising responsibility for health to the periphery, rather than expanding access. Under pressure to quantify the results of aid and

3 Although some may argue that poliomyelitis is a contemporary success story of near-eradication.

prove to their taxpaying constituencies that money was being well spent, donors also became reluctant to fund comprehensive, broad-based programmes, especially through governments perceived as corrupt. Therefore, "[v]ertical, definable, time-limited programs that could be changed every few years suited both donor agencies and governments" (Hall & Taylor 2003: 19).

The Health Sector Reform movement of the 1980s and 1990s saw the re-emergence of a language of integration in the form of "PHC packages", exemplified in the influential *World Development Report* of 1993 (World Bank 1993). The report advocated an "integrated package of low cost technical interventions" perceived to be "economically efficient and effective" in order to tackle the main disease problems of poor countries (De Pinho *et al* 2005). While health sector reforms in some instances called for more coherence in the choice and delivery of health programmes, they also included, for example, liberalisation of the private-for-profit sectors and the introduction of user fees. They thus had little in common with the equity-based philosophical roots of PHC.

Following the International Conference on Population and Development (ICDP) in 1994, support for integration also became prominent in the field of sexual and reproductive health. This conference and its "Program of action" were framed by the ideas of gender rights and sustainable development (De Pinho *et al* 2005). Practical experiences of integration, such as the success of syndromic management of sexually transmitted infections (STIs), were also influential, and "integration became the mantra of governments and donors alike" (Lush 2002: 71). In this period, bilateral and multi-lateral organisations started to participate in Sector-Wide Approaches (SWAs), which entailed a pooling of donors' funds to the entire health sector for priorities determined by ministries of health, rather than to specific projects: "In theory [this] system should lead to greater efficiency through reduction of duplicative mechanisms that may occur through multi-agency support" (O'Farrell 2001: 156).

In recent years growing global concern with major pandemics has seen an explosion of Public-Private Partnerships targeting the health burdens of the South. These partnerships, however, are often disease and even treatment specific (Wemos Foundation 2004). The UN Millennium Development Goals, while committed to eradicating world

poverty, still frame health goals in disease specific terms. Although greatly enhancing the mobilisation of resources for HIV/AIDS, malaria, TB and other diseases, these initiatives inevitably encourage a selective and vertical perspective on health systems (Travis *et al* 2004, McCoy *et al* 2005).

The different meanings of integration over time can be summarised into three broad strands of thinking:

- Integrated PHC as an overall approach to health sectors

In its broadest sense, integrated PHC emphasises the importance of intersectoral collaboration, community participation and a conception of social justice and development in its approach to health promotion. In this meaning PHC embodies a set of ideas that is more than the sum of a package of services, or just the first level of care. Values such as universal access and equity, community participation and intersectoral collaboration are seen as cornerstones of an overall strategy for achieving health for all (Chatora & Tumusime 2004). The health system itself is viewed as an integrated whole where different levels work together in a complementary manner, through structures such as the district health system.

- Integrated PHC packages

PHC packages are a set of cost-effective interventions delivered in an efficient manner without necessarily making reference to broader social objectives. The idea is often associated with health reform movements of the 1990s. Here integration refers to the incorporation of key PHC programmes based on an efficiency-based perspective and linked with other health sector reforms such as the integration of donor funds through SWAps and user fees.

- Integrated PHC programmes

This entails the integration of two or more programmes previously separated (Mitchell 2001). Classic examples include the international drive to integrate STI management into family planning following the 1994 ICPD, and more recent efforts to combine TB control and HIV/AIDS management programmes. It might also extend to the integration of a wide range of activities for managing a particular disease, eg HIV/AIDS care, treatment and support. Integration can be at the level of service delivery only, or also in the management/administration and

financing of programmes. This form of integration may make reference to broader values (such as the rights-based approach of ICPD), but generally does not refer to health systems structures and concepts.

The terms "integrated" and "comprehensive" are often used interchangeably, as are "vertical" and "selective" PHC. Clearly increased comprehensiveness of services implies an increased need for integration; and similarly, selective PHC has been predominantly associated with vertical programmes. However, it follows from the above typology that integration does not necessarily imply "one-stop" delivery of basic preventive and curative services, or even less adherence to the philosophical tenets of the *Alma Ata Declaration*. Similarly, a selective PHC approach can be delivered in an integrated PHC package.

Notwithstanding the ideological assumptions underlying the debates, much of the focus in the literature has been on the technical dimensions of the respective strengths of integrated and vertical approaches to PHC programmes. These are summarised in Table 1 below.

The main benefits of vertical approaches are that they afford identifiable short-term gains through targeting a controllable and manageable dimension of the health system. Against a background of weak health systems, such approaches are often seen as the most viable alternative. However, vertical disease programmes, especially when multiplied over a number of diseases, pose considerable risk to health systems, summarised by Travis *et al* (2004) into the four "d's": duplication, distortion, disruption, and distraction. Integrated approaches on the other hand, provide less certain outcomes and continue over longer time frames, but have the advantage of promoting coherent and holistic approaches that benefit both providers and users of the health system.

2.1 South African context

Comprehensive PHC has featured prominently in the overarching health policy statements of the South African government. In 1995, the Department of Health released a Policy for the Development of the District Health System (DHS), intended as the main vehicle for realising the goal of an integrated primary health care system (NDoH 2005). The *White Paper for the Transformation of the Health System in South Africa* (NDoH 1997) had as one of its five key strategies to steer reform of the health sector in such a way that: "[a]n integrated package of essential PHC ser-

Table 1: Strengths of verticalisation and integration

Issue	Verticalisation	Integration
Planning and budgeting	Planning and budgeting conducted at the top level are less time-consuming.	Planning and budgeting conducted at lower administrative levels promote local decision-making and are more responsive to client needs.
Objective setting and decision-making	Objective setting is more straightforward.	Rational decision-making requires local information about resources and clients. More decisions are made locally, resulting in policies that are more appropriate to individual local contexts.
Supervision and management	Lines of authority are clearer and supervision of the performance of discrete tasks is simpler.	As health facility staff share common goals and are trained to work together, supervision becomes more of a team approach. Community involvement is encouraged in health sector planning and management.
Resources	Vertical programmes invariably get more resources.	Resources are applied to the development of health infrastructure as a whole.
Staff	Staff roles are easier to define and their performance is easier to monitor.	Because client needs are met holistically, staff can see their contribution to the success of the programme.
Training	Training of staff to perform a single function, rather than multiple functions, is easier.	Overall quality and efficiency of the services benefit from integrated training.
Logistics	Because the number of commodities is limited, logistic management is simpler. Managing commodities is easier, because staff is required to keep track of a limited number of items.	Storage and transportation of commodities are more efficient. Ordering of supplies and stock control are unified for all supplies.
Management information systems and monitoring	Targets are simpler to define and measure. Funds and other resources can more readily be tracked to ensure that they are being used as intended.	Team efforts to reach targets are promoted by shared objectives and indicators. Reporting and information systems are combined and streamlined so that only the most essential information is collected.
Client services	Because staff are more knowledgeable in a particular area — their responsibilities are narrowly focused — clients' visits are brief.	Multiple client needs are met in a single visit. Thus, the client's time and travel costs are reduced. Clients can start a relationship with an individual provider who serves all their needs. Clients can receive preventive services that they might not know they require. Clients' health is addressed in a holistic manner.
Results	Results of singular, vertical programmes' are more readily attainable, and because the results are easier to identify, it is also easier to monitor progress.	Both preventive and curative health care are addressed. A higher uptake of services results and provider perceptions of services improve. By increasing the scope of services rendered at primary level, demand on hospital services would decrease, thus helping the re-allocation of resources towards primary level services.

Sources: Compiled from Amofah 1994, Daviaud 1997, Lush 2002, Mitchell 2001, Obimbo 2003, Walsh & Warren 1979

vices will be available to all South Africans at the first point of contact" (Van Rensburg & Pelser 2004: 119). Finally, the National Health Act 61 of 2003[4] explicitly allocates responsibility for the delivery of comprehensive PHC to provincial Departments of Health, although making clear that PHC requires all spheres of government to work in an integrated way. The responsibility for the delivery of comprehensive PHC cannot be carried by one level of the health system. PHC requires a vertically integrated, tiered health care system, where different levels of management and administration work together in a complementary manner (McCoy *et al* 2000).

In sum, policy statements emphasise a comprehensive approach to PHC, vertically integrated into the DHS and reiterating many of the equity-based principles of Alma Ata. Against this backdrop, the implementation of PHC integration in South Africa has focused on the following:

- Functional integration of PHC

This refers to "structured co-operation and collaboration between provincial and local government health authorities for the purpose of decreasing fragmentation and duplication, enhancing integrated service provision, and increasing efficiency and quality of PHC" (Pillay *et al* 2003). Functional integration was seen as necessary in the light of delays in finalising the locus of responsibility for PHC and the DHS.

- The PHC Package

This is a set of national guidelines for the provision of comprehensive, "one-stop" basic preventive and curative services at public health care facilities, whether locally or provincially based (NDoH 2001a, 2001b). The PHC Package lists service components and sets target dates for their implementation, as well as indicating service norms and standards. The service components described in the PHC Package are expected to deal as cost-effectively as possible with the leading causes of mortality and morbidity in the country. Importantly, it aims to create coherence in historically fragmented and selectively provided services; and by setting minimum standards, improve the quality of services.

> The aim of a core package of services is … very different from that described in the international experience with, as a consequence, a different impact on the equity issue. The purpose is not to exclude

4 Cf section 25 (2) (l).

> services along the lines of selective [PHC], but rather to identify ways to include services towards comprehensive services in a way which will enable the restructuring of service delivery (Daviaud 1997: 52).

PHC package audits are conducted on a regular basis as part of government audit systems.[5] In their critique, Sanders & Chopra (2001) argue that the South African PHC Package strongly resembles the selective efficiency-based approach to PHC advocated by the World Bank in the 1990s, rather than the equity-based comprehensive PHC approach as exemplified in the *Alma Ata Declaration* and the *White Paper for the Transformation of the Health System in South Africa*.

In the next section we describe how integration has been approached, specifically within the field of HIV/AIDS, and with specific reference to South Africa and the Free State province.

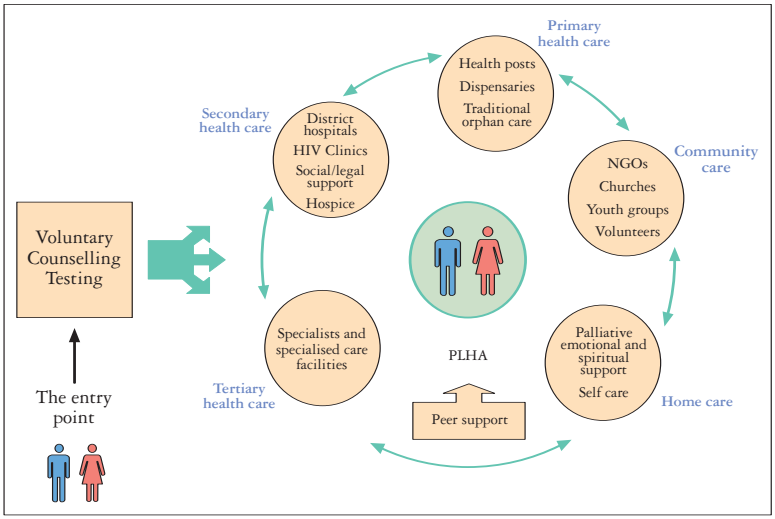
3. Integration of the HIV/AIDS response

3.1 Continuum of care, support and prevention

The management of HIV/AIDS is multi-faceted and even if HIV/AIDS care and support is conceptualised as a stand-alone programme, its components require some degree of integration to be effective. WHO (2000) refers to this as the "continuum of care" (Figure 1). Voluntary counselling and testing (VCT) forms the entry point into the continuum, and expanding access to VCT is an important first step in the development of a comprehensive package of HIV services (Pronyk *et al* 2002: 859). Once diagnosed, individuals ideally enter a co-ordinated continuum that encompasses all levels (community-based, primary, secondary, etc) of the health care system and includes TB services, prevention of mother-to-child transmission (PMTCT) programmes and linkages to support groups. At every point in the continuum clients should be provided with information about what other services they should utilise. Clear, strong referral systems should be in place so that clients can access appropriate services as and when required.

5 Cf for example Heunis *et al* (2003), who demonstrated that the actual implementation of the *PHC Package* is still quite variable and often quite inadequate in South Africa.

Figure 1: HIV/AIDS continuum of care and support



Source: WHO 2000

The concept of the continuum has relevance to South Africa (Stewart *et al* 2004) and is explicitly endorsed in the *Comprehensive Plan*, where provision of ART is but one component of a comprehensive approach to HIV/AIDS care and prevention. However, as pointed out, the focus in the Free State, as probably throughout South Africa and elsewhere, is on ART treatment.

South African HIV/AIDS policy initiatives preceding the *Comprehensive Plan* have generally promoted a holistic and integrated perspective, recognising the necessity for multi-sectoral responses and addressing the underlying social determinants of HIV/AIDS. Significant policy statements included the NACOSA *AIDS Plan* in 1994 and the more recent *HIV/AIDS/STD Strategic Plan for South Africa 2000-2005* (NDoH 2000).[6] The latter is seen as a key guiding policy statement by role-players across all spheres of government (Blaauw *et al* 2004). The *Strategic Plan*'s primary goals are to reduce the number of new HIV infections

6 STD = Sexually Transmitted Disease.

(especially among the youth) and the impact of HIV/AIDS on individuals, families and communities. The *Plan* is structured according to four key areas: prevention; treatment, care and support; human and legal rights; and monitoring, research and surveillance. It emphasises strategies such as effective and culturally appropriate information, education and counselling; increasing access to and acceptability of VCT; improving the management of STIs; promoting condom use; improving the care and treatment of people infected with HIV/AIDS; and promoting a better quality of life.

Significantly, the *Strategic Plan* is "not a plan for the health sector specifically, but a statement of intent for the country as a whole, both within and outside government" (NDoH 2000: 5). The Strategic Plan recognises that no single sector, ministry, department or organisation by itself is responsible for addressing the HIV epidemic. As such it is

> a milestone in policy development to the extent that it reflects, in a conspicuous way, a break with policies that on the whole saw HIV/AIDS as the primary responsibility of the national Department of Health (Van Rensburg *et al* 2002: 65).

While the Strategic Plan was initially criticised for lacking a dedicated budget for implementation (Hickey *et al* 2003), the subsequent National Integrated Plan (NIP) involved specific budgetary allocations to different sectors (Hickey 2001).

3.2 Integration of the TB-HIV/AIDS response

The South African Medical Research Council found that 71.9% of confirmed TB patients in the Free State are co-infected with HIV (Weyer 2003). The growing HIV and TB epidemics have impacted significantly on already weakened public health services in South Africa. An integrated TB/HIV/AIDS service may have many benefits for programmes and patients alike (Coetzee *et al* 2004). The idea of TB/HIV integration comes in the wake of widespread acknowledgement of the failure of the WHO-advocated DOTS (Directly Observed Treatment, Short-course) TB control programmes in developing countries, especially where HIV prevalence is high (De Cock & Chaisson 1999). For example, among SADC countries, only Botswana, Tanzania and Malawi report high (>80%) DOTS coverage and reasonable (±70%) treatment success (Weyer 2003: 7). Therefore, while advocating that DOTS should remain the core stra-

tegy for TB control, the WHO also promotes collaborative TB/HIV programme activities. Such activities should be directed towards establishing the mechanisms for collaboration between HIV/AIDS and TB programmes, decreasing the burden of TB in people infected with HIV and reducing the burden of HIV in people infected with TB (Peters & Heunis 2005).

In 2003, the TB cure rate in South Africa was dismally low at 56%, with high interruption (13%) and transfer (9%) rates, prompting the Department of Health (2004) to admit that the DOTS programme was failing. The Department attempted to rectify this failure through the introduction of collaborative TB/HIV activities. In 2003/04 there were 44 sub-districts implementing collaborative TB/HIV activities (NDoH 2004: 18). Around this time, the management of HIV, TB and STI programmes were formally combined nationally in so-called "HAST" (HIV/AIDS/STI/TB) programmes. In the Free State, these extended to the establishment of governance and participation mechanisms, where by March 2005, HAST committees had been established in three of the five districts. The district HAST committees included medical officers, pharmacists, district health information systems staff, representatives of hospital boards, clinic committees, as well as traditional healers. These committees attempted to facilitate integration by performing site visits and reporting to the province once per quarter. A HAST committee for the province was established in January 2005, and was inclusive of the directorates responsible for health information, marketing, skills development, and inter-departmental training. The provincial HAST committee also included representatives of district HAST committees, as well as institutions of higher learning.

The process and outcomes of HIV/TB integration in the Free State were comprehensively evaluated by Peters & Heunis (2005). Integration began with a pilot project in one local municipality in January 2002. By the first quarter of 2004 some progress had been made in rolling out the lessons learnt to the province at large:

- HIV/AIDS and TB had been combined in one directorate provincially.
- 131 health workers had received combined HIV/AIDS and training.
- District TB/HIV committees were established in eight of the nine local areas.

- VCT was offered in 204 of the 304 TB treatment sites in the Free State, seen by one respondent as the most significant indicator of integration.
- Each TB/HIV co-ordinator implemented a plan on TB/AIDS integration and had to provide quarterly feedback on progress, constraints and how these were to be addressed.
- 56 traditional healers were trained on TB/HIV in all five of the districts.
- Cotrimoxazole preventative therapy was available in all VCT sites.

The TB/HIV integration idea has extended to encompass the idea of ART. Expanding and strengthening the existing DOTS infrastructure and linking this programme to VCT provide the most important entry point for identifying people entering the AIDS stage of illness and who are prime candidates for ART (WHO/UNAIDS 2000: 14).

The HIV-associated TB epidemic has highlighted weaknesses in the vertical integration of services. Nhiwatiwa & Sepitla (2004) observed that TB control in the Goldfields area of the Free State suffered due to an inefficient and inappropriate system of referral from secondary to primary levels, resulting in the majority of hospital TB patients failing to continue treatment. The authors proposed an integrated system of care, starting with the involvement of DOTS supporters in hospital and a transport system to "courier" patients together with DOT supporters to PHC clinics, ensuring continuity of treatment (integration of hospital- and clinic-based TB care).

4. The voices of implementers

Despite the frameworks of the policy environment, both health managers and providers interviewed tended to conceptualise PHC as a collection of specific programmes rather than the holistic and integrated approach proposed by the *Alma Ata Declaration*. This found expression in frequently used acronyms such as "ART sister", "STI clinic", "TB targets", "IMCI [integrated management of childhood illnesses] manager" and "VCCT [voluntary, confidential counselling and testing] programme". Thus, vertical conceptions of PHC programmes have become established in their discourse.

Interviewees mostly spoke of integration in terms of merging or realising close collaboration between two (seldom more) previously separate programmes. In the context of ART there was reference to the need for integration of ART with other HIV/AIDS services — in particular VCT and the prevention of mother-to-child-transmission of HIV. There was also frequent reference to and substantiation of the need to integrate HIV/AIDS and TB care and treatment efforts. There was almost no mention of the PHC Package or of the health and development link, intersectoral collaboration and community participation. There was, however, some recognition of the idea of integration as having ideological and even political content.

> In the past sisters in rural areas could do anything. Then they started to do courses, VCCT or something, in which they saw promotion possibilities for themselves. Now they want to pull the others down again, want everything equal again — it is socialism.

4.1 HIV/AIDS

Understandably, at the time of the interviews, the concerns and attention of those directly implicated in the ART roll-out in the Free State were focused almost solely on ART and on the protracted and involved process of establishing new assessment and treatment sites. Not one of these respondents referred to preceding HIV/AIDS policies. Among the interviewees at all levels there was a sense of urgency to implement ART and pressure to start producing "numbers". As stated by a provincial-level manager there was no time to develop an integrated plan: "Everything had to happen overnight". While national role-players involved in the development of the *Comprehensive Plan* indicated that it was never the intention to establish separate "AIDS clinics", provincial participants in the programme since its inception interpreted national signals differently. For example, members of the Centre of Excellence, an ART provincial structure comprised of medical specialists advising the ART programme, and providing direct support to ART managers and workers in the province, felt there was a substantial national impetus, even pressure, for the verticalisation of ART: "Some groups, like the Clinton Foundation, objected to the idea to train all doctors at National Hospital and then to rotate them through the ART service. Their idea was to rather have dedicated doctors".

The hospital-based doctors interviewed were generally appreciative of the fact that earmarked funding for ART led to the strengthening of infrastructural and human resources in their facilities, even if confined to HIV/AIDS or ART clinics: "Specially allocated funds and resources make things happen". These doctors also felt that in the long run ART (even as a vertical programme) would lessen the patient burden of hospitals:

> National Hospital invested heavily in the ART programme, like additional personnel, computers, the pharmacy got extra space, etcetera. But if ART works and is integrated, 'emergencies' and the wards will not be so occupied by AIDS patients.[7]

Some saw it as a necessary first step, even if the long term vision was that of integration. "Even if you plan to eventually totally integrate ART, it needs to be kick-started in the beginning. Verticalisation is that kick-starting". This view also had support amongst clinic-based nurses who argued that verticalisation in the beginning of ART implementation made gradual integration later on easier. It held the advantage that the "teething problems" of ART were addressed before universal roll-out.

Separate HIV/AIDS or ART clinics within PHC facilities, as well as dedicated staff, were also seen to be necessary to provide secure environments for patients. While ART might help to eventually destigmatise AIDS, "for now it is necessary to separate these patients". One clinic-based nurse argued the case strongly:

> The health workers working in the HIV/AIDS clinic want to work there — they have special sympathy with HIV patients. We can all be trained, but we do not all have a passion for AIDS care ... Also important is that the patient cannot be expected to disclose to new health workers all the time.

A few clinic-based nurses also expressed the fear that TB patients will infect HIV/AIDS patients if they are together in the same vicinity of the clinic/hospital: "That is why at MUCPP clinic there was a request to shift the TB clinic to the top floor".

7 Nasionale Hospitaal het baie in die ART-program belê, soos bykomstige personeel, rekenaars, die apteek het ekstra ruimte bekom, ensovoorts. Maar as ART werk en geïntegreer word, sal noodgevalle en die sale nie meer so vol HIV-pasiënte lê nie.

These arguments were bolstered by a view that verticalisation was necessary for the successful implementation of the programme. Evoking the strengths of vertical programmes outlined in the literature (cf Table 1), a number of provincial-level interviewees spoke about the threat to quality posed by integration. Even though integrated programmes were "more democratic" and "politically correct", when health professionals specialised or worked exclusively in one programme they were "absolutely focused" on that programme, and therefore more knowledgeable. "Not all health workers have the inclination and the time to consult the literature." They believed that some health workers should be allowed to specialise in ART and that to a varying extent, specialists were needed from the clinic-level upwards.

A hospital-based doctor ventured that, if integrated, ART would be subjected to the general bureaucratic problems and resource scarcity in the public (PHC) service. Verticalisation of ART was the better option: "I mean, if I ask for five sisters, the government says they did not get any applications — I can get two. Then you work with two, what else? So, that is what it means to be integrated in the public sector".[8]

The main reservation of both health managers and providers interviewed was that integration of the comprehensive HIV and AIDS care and treatment, including the ART programme, would imply further burdening of staff "already overloaded" under PHC responsibilities. A doctor of the Centre of Excellence felt that a vertical ART programme with its own staff held the advantage that the existing staff was not overburdened with another programme "dumped on them" and "dictated by the powers that be".

Support for verticalisation amongst interviewees was balanced by strong arguments in favour of integration. One provincial manager suggested that being a professional, by definition, meant being multiskilled "Can you be a nurse without knowing how to measure blood pressure for hypertension? Can you be a health professional in South Africa without knowing how to care for AIDS?" This was echoed by a district manager who emphasised the need for all staff to be trained

8 Ek meen, as ek vir vyf susters vra, dan sê die staat hulle het geen aansoeke gekry nie, ek kan twee kry. Dan werk jy met twee, wat anders? So, dit is wat dit beteken om geïntegreerd te wees in die staat.

in ART: "Doctors in all sections of the hospital must be able to handle adverse ARV drug reactions". Verticalisation implied that there was no broad empowerment through training of public health workers at large. Even those working in dedicated ART structures felt this was an issue:

> Now she says she cannot examine the baby, the midwife should do it. She says the psychiatric nurse must see to the psychiatric client, the TB nurse must consult the TB patient. This is laxity — a nurse should be able to attend to all patients.

Within PHC facilities, providers reflected appreciatively on prior efforts to promote integrated case management in the Practical Approach to Lung Health South Africa (PALSA) initiative: "PALSA allows us to pick up the TB patients ourselves".[9] "A person can die of TB before starting ART". Vertical programmes result in neglect of other (priority) programmes: "You lose contact with the rest." In addition to these perceptions that non-integrated care could in fact undermine quality, vertical programmes were also viewed as inequitable and inaccessible: "Because less health workers are skilled in a vertical programme, access of clients to that programme is restricted".

Significantly, the further away interviewees were located from the urban centres, the more they were inclined to emphasise the need for generalist health practitioners: "We are … very far from the specialists in Bloemfontein. In Jagersfontein we need health workers who are multi-skilled". There was even a suggestion of resistance to any vertical implementation of ART in the more remote areas of the province. In this respect two facility managers took their cues from district rather than provincial ART programme managers. The facility managers were "strong personalities, able to take up [district] management decisions and to lead other health professionals. They have acted on our decision that everyone should be trained in both HIV/AIDS and TB".

A medical specialist of the Centre of Excellence argued that the verticalisation and integration of ART were not mutually exclusive approaches. This respondent felt that due to the high turnover of health professionals in the public sector, it was unwise to train only one or

9 PALSA's guidelines are screening and diagnostic tools for use by nurses in the PHC setting focusing on respiratory diseases and are presented as a series of integrated algorithmic guidelines (with coughing and/or difficult breathing as entry point) (English *et al* 2005, Fairall *et al* 2005).

a few clinicians in a health facility. Instead, for the sake of continuity of services, it was a better idea to train many or all:

> What we need is a couple of clinicians to provide stability and expertise, and then we need many to rotate through the training and the service to provide continuity. Pelonomi Hospital sets an exemplary example by rotating all staff through most programmes.

The interviewee summarised this stance as follows: "Verticalisation is necessary for the development of expertise, while integration is necessary for continuity and sustainability".

4.2 TB/HIV

There was widespread acceptance of and support for the idea of TB-HIV integration amongst interviewees. Reflecting their sympathy with broader PHC ideas, provincial-level HAST programme managers took pride in the progress made in expanding community involvement in the HAST programme. They were also strongly supportive of the process of integrating HIV/AIDS, STI and TB into the HAST concept:

> We have started the process of TB-HIV integration and are already seeing good results. There is increased testing for HIV. We first set up sites for PMTCT and are trying to test all babies six weeks after birth. We believe that we can achieve WHO targets for the TB cure rate. That is why we revisited the management structures.

TB/HIV integration had permeated to the level of service delivery. According to a doctor at a regional hospital: "If we have ART co-ordinators and TB co-ordinators they will fight for resources, but if it is one person knowing that it is one patient with a dual disease, integration will take place".

Another doctor at a regional hospital believed that:

> The first thing is to ensure that TB cases are tested for HIV. The second thing is to make sure that they first complete their TB treatment before commencing on ARVs. And to ensure that, while they are completing their last two months of TB treatment, they also undergo drug readiness training for ARV. This is integration — drug readiness training together with the taking of anti-TB drugs. It is almost like a trial to test compliance, and it has the advantage that the patient hears about both HIV and TB all the time.

This doctor also raised the lack of vertical integration as a factor in the poor TB cure rate in the province:

> Then they will realise there is a patient diagnosed with abdominal TB by means of sonar, and that he is to be discharged to clinic so and so. They will prepare the clinic that the patient is coming and arrange the transport. We need someone to act actively as an efficient go-between, not someone who sits at her computer looking at figures, but someone who crosses all levels.

In other areas, this problem had been solved:

> He [TB co-ordinator] keeps a register of every ZN [sputum test] taken. For every TB-positive patient he tries to get feedback from the clinic whether they received the patient, and if he is actually undergoing TB treatment. If the person did not reach the clinic, he must trace him. This is his mission.[10]

Lack of professional integration was seen as a key problem by the first-mentioned regional hospital doctor:

> The TB programme failed because we didn't have a common vision. The nurses are trained to diagnose TB using sputum. The doctors are trained to use an x-ray. The policy states that we must not do active case finding. Everyone does as they have been trained. They end up fighting with someone else. The patients are dying in the meantime. When you go to workshops you will find a nurse criticising the attitude of the doctor and vice versa, then both of them say the laboratory service is not up to it.

5. Conclusion

The *Comprehensive Plan* envisaged an integrated programme where ART is but one aspect of a much broader response to HIV/AIDS on the part of the health system and civil society. However, driven by ring-fenced funding and tight targets, the introduction of ART has tended to promote the implementation of a vertical programme with separate structures, staff and patients. This paper has explored the understandings of the terms "integrated" and "vertical" and their perceived strengths and weaknesses, both in the literature and interviews with health care managers and providers.

10 Hy [TB co-ordinator] hou 'n register van elke ZN wat geneem word. Vir elke TB-positiewe pasiënt probeer hy terugvoer van die kliniek kry of hulle wel die pasiënt ontvang het, en of hy wel op TB-behandeling geplaas is. As die persoon nie by die kliniek uitgekom het nie, moet hy opgespoor word. Dit is sy missie.

Integration and its opposite, vertical health care delivery, have been described and reinterpreted in various ways over time. Integration as first mooted in the *Alma Ata Declaration* of PHC made reference to values of equity and social justice, and entailed a comprehensive approach to health systems embedded within development more broadly. This was immediately countered by selective PHC which lent itself to vertical programme implementation in increasingly donor-dependent health systems. The health sector reform movements of the 1980s and 1990s produced the concept of integrated PHC packages, an idea picked up by South African policy-makers in the post-1994 era. Integrated health programmes also gained support following the ICPD in 1994. Recent years have again seen the re-emergence of disease specific programmes targeting priority diseases of the south.

All these various influences can be discerned in the South African health policy environment, and to some extent in the discourse of health care managers and implementers. In general, interviewees did not hold approaches to integration rooted in broad ranging developmentally orientated PHC or even in the idea of the PHC Package. Support for integration tended to focus on the value of integrated case management of HIV itself (including TB care) and of ensuring sustainable access through multi-skilled professionals. Despite support for integrated approaches, many saw the vertical implementation of ART as a necessity, if only in the start-up phases. Separating ART implementation from the rest of health service delivery was also a way to prevent services being overburdened with a new initiative, even though in the medium term this would very likely divert resources from the core.

A degree of verticalisation, especially in the beginning stages of ART implementation, may in fact be inevitable. However, the change from a vertical to an integrated programme is not easy. The process must be carefully planned and be appropriate to the specific local situation.

> [A]n over-hurried, ill-planned process of integration may easily result in deterioration in the quality of leprosy services with dramatic consequences for leprosy patients (Visschedijk & Feenstra 2003: iv).

Guidelines on how to effect greater integration fall outside the scope of this paper, but are well recorded in the literature.[11]

The idea of combining the vertical and the comprehensive approaches also resounds in the literature; both integrated and vertical programmes have significant advantages and disadvantages. A mix of the vertical and integrated approaches provides the opportunity to tailor the approach in support of specific programme goals (Mitchell 2001). All managers need to weigh the advantages to be gained by integrating some services while maintaining elements of a vertical programme. It may be acceptable in an integrated approach to have special services for particular groups "as long as all the health needs of the particular group are recognised and addressed in a coherent way" (Schierhout & Fonn 1999: 34).

However, the overriding need is for greater integration. Policymakers and implementers should not lose sight of the original Alma Ata vision of comprehensive, integrated PHC. The strengths of an integrated PHC system (eg greater equity, community participation and intersectoral collaboration) cannot be overlooked. These advantages are essential not only in fighting the major epidemics, but in ensuring general progress to health for all. This means that

> the emphasis on 'packaged' priority programmes with measurable outcomes, which characterizes third generation reforms, needs to be accompanied by the reorientation of [PHC] providers towards an empowering comprehensive approach to care (Petersen & Swarts 2002: 1005).

11 Cf Askew & Maggwa 2002, Klugman & McIntyre 2000, McCoy *et al* 2002, Mitchell 2001, Schierhout & Fonn 1999.

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