

WATER SERVICES AND HIV/AIDS

Integrating health and hygiene
education in the water and
sanitation sector in the
context of HIV/AIDS

Report Number: TT...



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Report to the
Water Research Commission

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for

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EXECUTIVE SUMMARY

The effectiveness of water and sanitation services in promoting healthy and sustainable livelihoods is dependent on effective health and hygiene education which is coordinated with the construction and delivery of water and sanitation infrastructure and related services (Strategic Framework for Water Services, Section 3.6.4: 2003).

Background to the study

This Water Research Commission study (Project K5/1634) arose from a growing realisation that, in relation to water and sanitation infrastructure development projects, there is little consistency or coherence of approach to health and hygiene education (H&HE). As a result, many interventions are ineffectual. Further, the linkages between HIV/AIDS and the improvement of water and sanitation facilities and related H&HE are poorly addressed in this country.

Accordingly, this study was established in order:

- (i) to clarify institutional arrangements and resources for project-based H&HE in the context of HIV/AIDS and
- (ii) to develop and refine for use within municipal contexts, models (covering institutional and financial arrangements) for implementing H&HE in water and sanitation projects.

This, the final report of the study, draws on extensive field research conducted during the course of the study and focuses on recommendations for institutional and financial arrangements for H&HE in the water services sector, with specific reference to HIV/AIDS.

Research approach

In response to the above, a range of research components was identified, including desktop work, literature reviews, field research (including interviews of key respondents and gathering field-based data and case studies).

This research included:

- Setting out the conceptual framework for the study, including identifying enabling and constraining factors, reviewing the current legislative and policy framework, institutional and financial arrangements and methodologies, approaches and indicators being used.
- Examining the integration of HIV/AIDS, water and health services at the municipal level, including reviewing legislation and published work in the field and drawing on extensive fieldwork.
- Documenting and sharing H&HE monitoring systems and indicators, which required a detailed examination of current practice through field research and a desktop analysis of local and international research.
- Developing and testing models for implementing H&HE at municipal level. The refined models that resulted from this work as well as recommendations are included in this final report.

Deliverables

The project resulted in a number of unpublished reports and published project deliverables.

Unpublished reports include:

- *Towards Integrated Health and Hygiene Promotion and User Education: Enabling and Constraining Factors, Project Inception Report.* WRC Project K5/1634, September 2005.
- *Understanding the Links between AIDS, Water, Sanitation and Hygiene: Experiences from Jeppe's Reef, Nkomazi, Mpumalanga.* WRC Project K5/1634, 2005.
- *Rationale for Integrated Approaches to HIV/AIDS and Water Services at Municipal Level.* WRC Project K5/1634, 2006.
- *Indicators of Integrated Hygiene Promotion.* WRC Project K5/1634, September 2006.
- *Presentation: Local Government Water Services and HIV/AIDS.* WRC Project K5/1634.

Published project deliverables include:

- *Water Services and HIV/AIDS: A Guide for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services.* TT Report Number: xx, WRC, 2007.
- *Water Services and HIV/AIDS: Integrating Health and Hygiene Education in the Water and Sanitation Sector in the Context of HIV/AIDS.* TT Report Number xx: WRC, 2007.
- *Water Services and HIV/AIDS: A DVD for Councillors.* WRC, 2007.
- *Water Services and HIV/AIDS: A Booklet for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services.* WRC, 2007.

Findings and key recommendations

This report sets the scene by summarising relevant legislation, and making strong linkages between the water services aspects of this work and HIV/AIDS. Indeed, the report makes several strong recommendations about strengthening these linkages operationally. An important recent development for the project is the planned roll-out of The National Health and Hygiene Education Strategy Related to Water and Sanitation (NSTT, 2004). The study articulates very well with that, so the opportunity of feeding into the roll-out of the Strategy has been taken, and welcomed by the Departments of Health and of Water Affairs and Forestry. Certain terminology used in the National Strategy has been adopted in this report in order to tighten the linkages and articulation.

The work done for this study gives us the confidence to support the National Strategy, but with several relatively minor amendments. These in no way undermine the value and status of the Strategy and a recommendation is made that the Strategy should be adopted.

An important principle that the study established is the value of keeping our institutional and financial arrangements simple, or rather to avoid complexity wherever possible. The principle that is followed is, therefore, to use existing resources and relationships, and to enhance and strengthen existing arrangements rather than to create new ones.

An important example of this in practice is the recommendation (in relation to linkages between HIV/AIDS and water and sanitation work) to advocate for:

- HIV/AIDS-related H&HE methodologies, materials and training for personnel in the water service sector

- Water- and sanitation-related H&HE methodologies, materials and training for Primary Health Care (PHC) personnel such as community health workers (CHWs) or health promotion practitioners (HPPs).

These two strategies are simple and avoid the need for coordinated relationships, inter-departmental cooperation agreements, yet with the potential for major gains.

The study identifies the main role-players in H&HE in the water services sector, examines their roles and attempts to derive understandings of 'best practice' from what was learned from the research. This is compared with the proposals in the National Strategy and recommendations for alternative roles have been made where it is felt that the Strategy needs to be amended to take account of realities on the ground, or of recent developments. For example, the National Strategy is almost silent on the role of ISD practitioners, whereas experience in the field suggests that ISD practitioners are playing a central role in water and sanitation-related H&HE. This is addressed in the report and specific recommendations are made. Significantly, an important role is identified for ISD practitioners (both within WSAs and as consultants), but they are usually associated with infrastructure projects and hence generally do not provide an on-going or developmental function. For that reason the study recommends that EHPs and other locally based development practitioners (such as Community Development Workers – CDWs) should become increasingly involved in project-based H&HE, thereby providing a more ongoing service and enhancing linkages between project-based and ongoing H&HE.

The National Strategy pre-dates the devolution of environmental health practitioners (EHPs) to District Municipality (DM) level by some time so, while the Strategy allocates a lead role for EHPs in H&HE, they are, in fact, not as freely available as was originally envisaged due the multiple demands on them and the pressures under which they work and will continue to work. For this reason it is recommended that their role in the short-term should include support, capacity building, monitoring and compliance, and should require direct implementation of H&HE incrementally, in order eventually to provide the ongoing and developmental role described above.

The strategy is silent on the existence of MIG PMUs (Municipal Infrastructure Grant Project Management Units), because it pre-dates these more recent developments. MIG PMUs are temporary (infrastructure backlog) structures aimed at building the capacity of the WSA to manage basic services infrastructure development.

In line with the National Strategy, this report argues that project-based H&HE is the responsibility of the WSA (to ensure). Where the WSA is a DM or a Metro, they will also have the responsibility for municipal health services, in particular, environmental health services. In this regard the strengthening of linkages through joint planning, coordinating forums and the like between the MHS and infrastructure departments or units (WSA or MIG PMU, usually) within the municipality are strongly encouraged. Where DMs have not yet fully taken over their mandated role of providing environmental health services, they need to set up a support service agreement with the environmental health services in the LMs or the province. Where the WSA is an LM, they can use existing EHPs (within the LM) where they haven't been devolved yet, and where they have they will need a support service agreement with the DM.

The strategy presents a major role for Water Services Providers (WSPs). However, in terms of their mandate, their role does not, in fact, extend to project-based H&HE, but has a big role in ongoing H&HE, together with water conservation, as part of the WSP's customer relations and communications function health. The role of the WSP is operations and

maintenance (O&M), customer relations, tariff collection, financial management and maybe service level upgrades and extensions. This anomaly is addressed in the report.

The report goes on to examine and make recommendations around funding arrangements and points such as monitoring, feedback, coordination and collaboration, training needs, sustainability and local economic development (LED) and linkages between project-based H&HE and other aspects such as ongoing H&HE, and schools.

Funding arrangements are, in most cases, not problematic because existing funding is in place for many of the role-players. There is a short-term difficulty around the devolution of EHPs to DM level based on the fact that new conditions of service have not yet been resolved, nor has funding been released for DMs to cover the salaries and associated costs. This process is planned for resolution by 1 July 2007, and the report works from the assumption that the process will not suffer any setbacks.

A more fundamental funding issue identified in the study relates to funding ISD practitioner work through the Municipal Infrastructure Grant (MIG). There are significant benefits to doing it this way, and the MIG policy needs to be revised to include project-related ISD, but the question relates to whether this prevents a more effective H&HE programme. Is a series of household visits supported by several community meetings adequate for sustained behaviour change, sustained local operations and maintenance of new facilities and sustained health? The report makes the recommendation that this issue needs to be reviewed and addressed.

The report also makes a strong case for collaborative planning and collaboration of work efforts. It proposes the slogan "joint planning and operational collaboration", which should be a guiding principle. It also proposes the establishment of coordinating forums at all levels, which would include the National Sanitation Task Team (NSTT) and the Provincial Sanitation Task Teams (PSTTs) but particularly at programme or district level and project level. The need for such collaborative structures for cross-sectoral, multi-group feedback and collaborative project monitoring is emphasised, and specific advocacy interventions to achieve this are recommended.

Training and standards of provision receive considerable attention in the report, and it is recommended, amongst others, that accredited training should be required of most major role-players, particularly ISD practitioners. It is also recommended that some form of association or professional body be established by ISDs and that thereby, standards of provision could be identified and monitored.

Conclusion

This study has involved considerable research over a period of time. It has identified factors which constrain and enable effective implementation of project-based H&HE in the context of HIV/AIDS. Based on that research and understandings of the context, it has developed and tested various institutional and financial arrangements and developed implementation models based on this work.

This final report goes into considerable detail around these models of institutional and financial arrangements. It also presents a wide range of recommendations towards effective implementation of project-based H&HE.

The report takes into account the differences between various types of municipalities, for example, LMs that are authorised as WSAs, and DMs that are not WSAs. It then recommends various implementation strategies appropriate to these types of municipalities.

Careful consideration of the implications of HIV/AIDS for water services policy, planning, regulation, delivery and provision, together with effective H&HE, will contribute to integrated water and environmental health services that address the needs of people living with HIV/AIDS, and reduce the impact of the disease.

The study places considerable emphasis on the linkages between water and sanitation, health and hygiene education and HIV/AIDS. The impact of HIV/AIDS on the lives of many South Africans is severe; it is imperative that the water services sector formulates and implements an appropriate response as a matter of urgency. It is critical that issues around HIV/AIDS are mainstreamed, both in terms of prevention as well as in reducing the impact on people living with AIDS. Caregivers, in particular, require not only knowledge of water and sanitation and related health and hygiene issues, but also access to adequate quantities of water of good quality. All H&HE role-players in the sector must integrate issues relating to HIV/AIDS into their existing water and sanitation-related H&HE, and the sector needs to encourage and support this process, which is at present almost entirely absent.

This study has identified major areas for improvement in the sector, as well as for collaboration within and beyond the sector, particularly, partnerships with agencies and role-players involved in the HIV/AIDS sector. It is critical that H&HE gains greater status generally, because water and sanitation infrastructure development is, ultimately, not at all about 'pipes in the ground' but about health and well-being. For this reason, user education and adoption of health-promoting hygiene practices should not be peripheral to infrastructure development, but should drive them.

Municipalities have an enormous responsibility, but also an opportunity to play a central role in promoting health, well-being and economic and social growth through their infrastructure development work. Effective delivery of integrated water, sanitation and hygiene education will have a significant impact on the lives of people with HIV/AIDS. It is hoped, therefore, that the study, through its findings and recommendations, and particularly through the implementation models presented in this report, will promote greater commitment within municipalities to implementing effective H&HE, and that the strategies outlined in the report assist municipalities to put effective institutional arrangements in place.

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The publication emanates from the project entitled: *Integrated Health and Hygiene Education* (WRC Project no. K5/1634). In addition to this final research report, the study has produced a range of project reports as well as a WRC TT Report entitled *Water Services and HIV/AIDS: A Guide for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services*, a DVD and booklet *Water Services and HIV/AIDS*, also available from the WRC (See Appendix 1).

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TABLE OF CONTENTS

	Page
1. Introduction and background	1
1.1 <i>Identifying the Problems</i>	2
1.1.1 Approach and Methodology	2
1.1.2 Monitoring and Evaluation	3
1.1.3 Institutional and Financial Arrangements	3
1.2 <i>Components of the Research</i>	4
1.2.1 Setting Out the Conceptual Framework for the Study	4
1.2.2 Examining the Integration of HIV/AIDS, Water and Health Services at the Municipal Level	4
1.2.3 Documenting and Sharing Health and Hygiene Education Monitoring Systems and Indicators	4
1.2.4 Developing and Testing Models	4
1.3 <i>Outputs</i>	4
1.3.1 Unpublished project reports	5
1.3.2 Published project deliverables	5
2. Rationale for the Study	6
2.1 <i>Rationale for Linking Water Services and Hygiene Education</i>	6
2.2 <i>Rationale for Linking Water Services, Hygiene Education and HIV/AIDS</i>	7
2.2.1 The Role of Municipalities	9
3. Methodology	11
3.1 <i>Enabling and Constraining Factors for Municipal Health and Hygiene Education</i>	11
3.1.1 Inception Phase	11
3.1.2 Desktop Research	11
3.1.3 Field-based Research	11

3.2	<i>Monitoring and Evaluating Project-based Health and Hygiene Education</i>	12
3.3	<i>The Modelling Process</i>	12
3.4	<i>Advocacy Materials for Water Services, Hygiene Education and HIV/AIDS</i>	13
4.	Findings	15
4.1	<i>Findings from Legislative, Policy and Literature Reviews</i>	15
4.2	<i>Findings from Action Research</i>	16
4.2.1	Inception Phase	16
4.2.2	Monitoring Project-related Health and Hygiene Education	16
4.2.3	Findings from the Modelling	17
4.3	<i>Findings from Case Studies</i>	19
4.3.1	HIV Infection Rates	19
4.3.2	Stigma	20
4.3.3	Water and Sanitation Needs	20
4.3.4	Support for Home-based Care	21
4.3.5	Links with other Social Services	22
4.3.6	The Motivations of Home-based Caregivers	22
5.	Synthesis	23
5.1	<i>Constraining Factors</i>	23
5.1.1	Institutional Arrangements	23
5.1.2	Financial Arrangements	24
5.1.3	Insufficient Prioritisation	24
5.1.4	Approach and Methodology	25
5.1.5	Monitoring and Measuring Impact	26
5.1.6	Capacity Constraints	26
5.2	<i>Enabling Factors</i>	27
5.2.1	Policy and Legislative Framework	27

5.2.2	Growing Awareness	28
5.2.3	Provincial and Municipal Collaboration (Forums & Task Teams)	28
5.2.4	Municipal Monitoring and Information Systems	29
5.2.5	Accredited Training and Training Materials	29
5.3	<i>Institutional and Financial Models</i>	30
5.3.1	The Institutional Model in Diagrammatic Form	30
5.3.2	The Consolidated Model in Narrative Form	30
	Figure 1: Consolidated model for project-based H&HE	32
5.3.3	The Role-players	33
5.3.4	Funding Arrangements	40
5.3.5	Coordination and Collaboration	41
5.3.6	Monitoring	43
5.3.7	HIV and AIDS and H&HE within the Water Services Sector	46
5.3.8	Training Needs	47
5.3.9	Sustainability and Local Economic Development (LED)	49
5.3.10	Linkages beyond Project-based Health and Hygiene Education	50
6.	Recommendations	53
6.1	<i>Sector Recommendations</i>	53
6.2	<i>Recommended Implementation Strategy</i>	57
6.2.1	Where a District Municipality is the Water Services Authority	57
6.2.2	Where a Metropolitan Municipality (Metro) is the Water Services Authority	58
6.2.3	Where a Local Municipality is the Water Services Authority	58
6.2.4	Municipalities that are not Water Services Authorities	59
7.	Conclusion	60

8. List of References	61
Appendix 1: List of Publications Emanating from the Study	62
Appendix 2: Questionnaire for Interviews	63
Appendix 3: Interview Schedule for Modelling Process	65
Appendix 4: Interview Schedule for Case Studies	67
Appendix 5: List of Key Respondents	69
Appendix 6: List of Workshop Participants	70
Appendix 7: Proposed Minimum Standards for Health and Hygiene Education	71
Appendix 8: DWAF's Key Performance Indicators for Health and Hygiene Education	72

LIST OF ACRONYMS

xxx	
CDW	Community Development Worker
CHW	Community Health Worker
DM	District Municipality
DoH	Department of Health
Dplg	Department of Provincial and Local Government
DWAF	Department of Water Affairs and Forestry
EHA	Environmental Health Assistant
EHP	Environmental Health Practitioner
EHS	Environmental Health Services
EPWP	Extended Public Works Programme
ESETA	Energy Sector Education and Training Authority
H&HE	Health and Hygiene Education
HBC	Home-based Care / Carer
HPP	Health Promotion Practitioner
IA	Implementing Agent
IDP	Integrated Development Plan
ISD	Institutional and Social Development
KPA	Key Performance Indicator
KZN	KwaZulu-Natal
LED	Local Economic Development
LGSETA	Local Government Sector Education and Training Authority
LGWSETA	Local Government and Water Sector Education and Training Authority
LM	Local Municipality
M&E	Monitoring and Evaluation
MHS	Municipal Health Services
MIG	Municipal Infrastructure Grant
NQF	National Qualifications Framework
NSTT	National Sanitation Task Team
O&M	Operations and Maintenance
PHC	Primary Health Care
PMU	Project Management Unit
PSC	Project Steering Committee
PSTT	Provincial Sanitation Task Team
SALGA	South African Local Government Association
SAQA	South African Qualifications Authority
SASO	Special Auxiliary Services Officer
SDBIP	Service Delivery, Budgeting and Implementation Plan
SETA	Sector Education and Training Authority
WSA	Water Services Authority
WSDP	Water Services Development Plan
WSP	Water Services Provider

1. Introduction and background

This Water Research Commission study (Project K5/1634) arose from an acknowledgement that, while, the promotion of appropriate health and hygiene awareness and behaviour is an integral part of a basic water or sanitation services, and its value is acknowledged by a growing number of municipalities, there is, as yet, no consistent or coherent approach to promoting hygiene in the context of sanitation projects, and as a result, many interventions are ineffectual. Moreover, the linkages between water and sanitation facilities and health within the context of HIV/AIDS are poorly addressed in the South African context.

The objective of the study was therefore to clarify institutional arrangements and resources for project-based health and hygiene education (H&HE) in the context of HIV/AIDS and to develop models for implementing H&HE, primarily at municipal level.

A series of reports emanated from the study. These reports (see Appendix 1) are available from the Water Research Commission (WRC).

Alongside the challenges of providing effective H&HE within the water services sector is the even greater challenge of addressing the HIV/AIDS pandemic in South Africa, which is already dealing with the second-highest HIV prevalence in the world.

If you look, for example, in the province of KwaZulu-Natal, an average of 40% of women attending antenatal clinics are HIV-infected. In the age group 20 to 29, 47% are infected, and in [the offspring of] that population we see a trebling of infant mortality in the past 15 years. It's catastrophic¹.

It is not the mandate of this study to address the HIV/AIDS pandemic itself, but rather to focus on the linkages with the water services sector and the role that access to adequate water services can play in improving the quality of life of people living with AIDS. That there are direct linkages is not disputed, but there is a low level of collaborative planning between water services and health services in this regard, and delivery of adequate water services has still not been achieved.

In its report outlining the links between living with HIV/AIDS and safe water and sanitation, the Millennium Water Alliance sets the scene as follows:

At the end of 2003, UNAIDS estimated there to be 40 million people living with HIV/AIDS in the world. More than half of those people live in Sub-Saharan Africa. Policy makers and public health practitioners agree that it remains paramount to dedicate time, research, and money to preventing the spread of HIV/AIDS and developing a cure for the disease. Further, the growing number of people currently living with the disease makes it increasingly necessary to focus on extending the lives of people living with HIV/AIDS and making their lives as comfortable as possible.

While in the past, aid efforts have focused on preventive measures such as encouraging safer sexual practices and reducing the chances of mother-to-child transmission (MTCT), the focus has shifted recently to developing and promoting

¹ Dr. Nigel Rollins, Head of Paediatrics and Child Health at the University of KwaZulu-Natal. Statement at Third National AIDS Conference, June 2007, Durban.

better treatment options. Many efforts are centred on delivering anti-retroviral (ARV) therapy to people with HIV/AIDS, as well as providing support for their caregivers. However, in many of the countries in the world most affected by the HIV/AIDS pandemic, water and sanitation services are extremely limited. These services, when adequate, serve to protect against faecal-oral transmission of diarrhoea-causing agents. People with compromised immune systems are especially susceptible to these diseases and without adequate water, hygiene and sanitation may suffer repeated bouts of diarrhoea. With the shift of focus from HIV/AIDS prevention efforts to treatment options, more attention must be given to improving water and sanitation services. These services will aid the whole population, but will be especially beneficial in the treatment and care of the millions of people living with HIV/AIDS².

The above extracts eloquently set the scene for this study and raise the importance of integrating H&HE into water and sanitation infrastructure delivery in ways that take full account of the HIV/AIDS pandemic and the lives of people affected by it. And those communities who are beneficiaries of water and sanitation improvement projects are in many cases also the same communities who are experiencing the greatest impacts of HIV/AIDS. It is imperative that integration and provision of services appropriate for the needs of those people should be addressed with commitment and energy.

1.1 Identifying the problems

At the outset the project identified a range of problems in the sector, as follows:

1.1.1 Approach and methodology

- Hygiene promotion initiatives often fail to take account of constraints that inhibit adoption of the good practices they promote. For example, where residents must carry their water in 25 litre containers from 200m away (and further), ignorance is not necessarily the main reason why people do not wash their hands frequently. It is imperative that promotion campaigns are customised to speak to local conditions.
- Health and hygiene messages are often unclear, confused in delivery, poorly understood by recipients, and have little impact. Some are over-ambitious, with the result that essential information is misunderstood or lost; others are broad and bland and serve little purpose except to satisfy the requirements of the funder.
- Methodologies are often inappropriate. Some are hyper-participatory among a small segment of the local population but have little broader impact; others are didactic, often conveyed through mass meetings with little attention to local needs and concerns.
- There is frequently little integration and coordination with concurrent environmental and primary health care campaigns.
- There is no coordinated strategy for follow-up support and monitoring by municipal and provincial health personnel.
- Schools are often neglected entirely, thereby squandering a highly effective vehicle for reaching a large number of impressionable learners.
- There is no integrated approach to H&HE in water and sanitation projects. Water projects frequently have no H&HE component, while sanitation projects frequently do not address constraints on hygiene improvement caused by inadequate water supplies.

² Quality of life: Exploring the links between living with HIV/AIDS, and safe water and sanitation, Millennium Water Alliance, 2004:1

- Approaches are supply driven, which does not encourage a sense of user ownership or commitment, and can also hinder effective H&HE.

1.1.2 Monitoring and evaluation

- There is little attention to measuring impacts, or designing interventions in such a way that their impact can be evaluated, with corrective or remedial action where required.
- Where monitoring is poor, and records not kept, lessons from experience are not distilled and learned by those involved in the sector.

1.1.3 Institutional and financial arrangements

- Allocation of responsibilities between local residents, project support teams, municipal and provincial health personnel are often confused, resulting in duplication of effort in some areas and neglect in others.
- There is ineffective public expenditure on H&HE.
- Increasing decentralization of governmental responsibilities has meant institutional complexities that require innovation and research.

Accordingly, the study identified the need for research into an institutional model for an integrated approach to H&HE in the water services sector. This was to ensure available resources are allocated effectively and with maximum impact within the current legislative and policy framework and drawing on municipal good practice.

A number of key points were also identified that would need to be addressed in order for project-based H&HE in the context of HIV/AIDS to be effective. These are:

- Broaden the scope of 'health and hygiene' promotion to include user education, with provision of information that will promote the sustainable and effective use of improved water supply and sanitation facilities, as well as the intended health and socio-economic impacts of these facilities. Later in this report the use of terminology such as user education and health promotion is standardised by using the generic term "health and hygiene education" (H&HE), in line with the National Strategy for Health and Hygiene Education³.
- Lobby for broad acceptance that water and sanitation improvement entails considerably more than infrastructure provision. It is essential that water and sanitation-related H&HE is defined as an integral part of free basic services and funded accordingly. Notwithstanding the role of EHS, the Municipal Infrastructure Grant (MIG) needs to make effective provision for institutional and social development including H&HE. The ongoing provision of water services (through the Equitable Share and municipal revenue) should ensure ongoing H&HE as part of customer relations and communication.
- Emphasise that proper health and hygiene can, quite literally, extend the lives of people infected with HIV. This insight needs to be built into home-based care (HBC) training programmes and into provincial health HIV/AIDS awareness programmes. It also calls for alignment and coordination between municipal and provincial programmes, and between environmental, primary health, and HIV/AIDS-related initiatives in all spheres of government.

³ National Sanitation Task Team (August 2004): National Strategy for Health and Hygiene Education Related to Water and Sanitation Services.

- Integrate water and sanitation with other elements of integrated development, through municipal IDPs and WSDPs. District health planning, together with water services development planning should be a core driver of any localised H&HE strategy, with district and provincial health support.

1.2 Components of the research

In response to the above, a range of research components was identified, including desktop work, literature reviews, field research (including interviews of key respondents and gathering field-based data and case studies).

This research included:

1.2.1 Setting out the conceptual framework for the study

This involved a range of activities including interviews, focus group discussions and analyses of enabling and constraining factors for integrated H&HE, in terms of:

- the current legislative and policy framework
- institutional and financial arrangements in place
- methodologies, approaches and indicators being used.

An important element of this work was the identification of a comprehensive range of enabling and constraining factors. The subsequent work done on developing and testing models for implementing H&HE drew on and addressed these factors.

1.2.2 Examining the integration of HIV/AIDS, water and health services at the municipal level

This work drew extensively on legislation and published work in the field in order to unpack the linkages between local government, water services, health and HIV/AIDS. It also draws on extensive fieldwork, including case studies and anecdotal material to provide a consumer perspective to the issue.

1.2.3 Documenting and sharing health and hygiene education monitoring systems and indicators

This work was done by conducting a detailed examination of current practice through field research and a desktop analysis of local and international research.

1.2.4 Developing and testing models

Models for implementing H&HE at municipal level were developed from the previous work and also from the National Health and Hygiene Education Strategy (NSTT, 2004). The models were then tested by means of interviews and participatory workshops. The refined models that resulted from this work as well as recommendations are included in this final report.

This final report synthesises all of the above and presents recommendations for implementing effective H&HE in the water services sector.

1.3 Outputs

This project resulted in a number of unpublished reports as well as published project deliverables, as follows:

1.3.1 Unpublished project reports:

Towards Integrated Health and Hygiene Promotion and User Education: Enabling and Constraining Factors, Project Inception Report. WRC Project K5/1634, September 2005.

Understanding the Links between AIDS, Water, Sanitation and Hygiene – Experiences from Jeppe’s Reef, Nkomazi, Mpumalanga. WRC Project K5/1634, September 2005.

Rationale for Integrated Approaches to HIV/AIDS and Water Services at Municipal Level. WRC Project K5/1634, February 2006.

Indicators of Integrated Hygiene Promotion. WRC Project K5/1634, September 2006.

Presentation: Local Government Water Services and HIV/AIDS. WRC Project K5/1634.

1.3.2 Published project deliverables

Water Services and HIV/AIDS: A Guide for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services. TT Report Number: xx, WRC, 2007.

Water Services and HIV/AIDS: Integrating Health and Hygiene Education in the Water and Sanitation Sector in the Context of HIV/AIDS. TT Report Number xx: WRC, 2007.

Water Services and HIV/AIDS: A DVD for Councillors. WRC, 2007.

Water Services and HIV/AIDS: A Booklet for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services. WRC, 2007.

2. Rationale for the study

2.1 Rationale for Linking Water Services and Hygiene Education

The effectiveness of water and sanitation services in promoting healthy and sustainable livelihoods is dependent on effective health and hygiene education which is coordinated with the construction and delivery of water and sanitation infrastructure and related services⁴.

Water and sanitation infrastructure provision will only achieve the intended health, economic development and quality of life impacts if users are able make effective and hygienic use of improved water supply and sanitation facilities.

By the same token, hygienic and effective use of water and sanitation for improved health is not possible without access to at least basic water and sanitation facilities. Infrastructure provision and H&HE⁵ are inextricably linked.

As a result, the Strategic Framework for Water Services⁶ includes in its definition of a basic water supply service: ... *the sustainable operation of the facility... and the communication of good health, hygiene and water-related practices (Section 6.3.1).*

In the same section, the Strategic Framework defines a basic sanitation service as

the provision of a basic sanitation facility which is easily accessible to a household, the sustainable operation of the facility, including safe removal of human waste and waste water from the premises where appropriate and necessary, and the communication of good sanitation, hygiene and related practices”.

An effective water and sanitation delivery programme does more than provide infrastructure. It also:

- reduces the spread of water and sanitation-related diseases
- reduces associated public environmental health risks
- promotes sustainable water and sanitation services.

To achieve this, the programme needs an effective H&HE component that supports householders to:

- change their hygiene practices to reduce the risk of infection
- take care of water and sanitation facilities
- use water wisely.

Municipalities with powers and functions for water services⁷ (Water Services Authorities or WSAs) are responsible for developing water and sanitation infrastructure in order to ensure access to at least a basic level of water services for all. WSAs should therefore lead H&HE as a core component of water and sanitation infrastructure development.

⁴ *Strategic Framework for Water Services* 2003 section 3.6.4.

⁵ In keeping with the National Strategy for Health and Hygiene Education related to Water and Sanitation (NSTT 2004), 'health and hygiene education' incorporates hygiene promotion, sanitation promotion and user education.

⁶ Approved by Cabinet in September 2003 and replaces the 1994 Water Services White Paper.

⁷ In keeping with the Water Services Act (108 of 1997) 'water services' refers to both water and sanitation.

Customer care, communication and user education are also key water services provision functions. Water Services Providers (WSPs) – whether internal or external to the WSA – therefore have a key role in ongoing H&HE.

2.2 Rationale for Linking Water Services, Hygiene Education and HIV/AIDS

A previous report in this study⁸ (see Appendix 1) summarises the links between HIV/AIDS and effective H&HE as well as access to water and sanitation services as follows:

- Effective and hygienic use of adequate and accessible water and sanitation reduces exposure to pathogens and can prolong the progression from HIV to AIDS, and also reduce both infectiousness and susceptibility to infection.
- Reliable water and safe accessible sanitation is crucial for bathing, washing, cleaning, disinfecting, comfort and dignity associated with home-based care.
- Access to water increases food security to ensure sufficient nutrition for people on AIDS treatment and for softening food.

Clearly, supporting effective health and hygiene practices can, quite literally, extend people's lives. An important issue that this raises, however, is to ask what 'adequate' means when applied to people living with AIDS and their caregivers. Evidence from a recent analysis of published research⁹ reveals that access to water from a house connection reduces the incidence of diarrhoea attributable to water supply by 63% as opposed to having access to water from a public source (17% reduction).

Assumed Reductions in Diarrhoea Attributable to Water Supply, Sanitation, and Hygiene Promotion		
Intervention	Reduction in diarrhoea (percent)	Corresponding relative risk
Water supply		
Public source	17	1.20
Additional, for house connection	63	2.70
Excreta disposal	36	1.56
Hygiene promotion	48	1.92

This emphasises that for people living with AIDS who are in some way debilitated by the disease, *adequate* access to water and sanitation services probably requires a higher level of service than the norm.

Generally, for improved health, it is clear that improved access to greater quantities of water is required, and that water should be of as good a quality as possible.

The linkages between HIV/AIDS and water, sanitation and hygiene can be understood from a range of perspectives¹⁰.

⁸ Rationale for integrated approaches to HIV/AIDS and water services at municipal level, WRC Project K5/1634, February 2006.

⁹ Sandy Cairncross and Vivian Valdmanis, "Water Supply, Sanitation, and Hygiene Promotion." 2006. *Disease Control Priorities in Developing Countries (2nd Edition)*, ed. , 771-792. New York: Oxford University Press. DOI: 10.1596/978-0-821-36179-5/Chpt-41.

¹⁰ *HIV/AIDS and water, sanitation and hygiene, Thematic Overview Paper*, Kamminga and Wegelin-Schuringa, Royal Tropical Institute and IRC International Water and Sanitation Centre, 2003: 13-23.

From a **consumer perspective**, access to affordable, accessible and reliable water and sanitation is crucial for people living with HIV/AIDS and for providing home-based care. Clean water is needed for taking anti-retroviral medication and accessible water is needed for bathing patients, washing soiled clothing and linen, and essential hygiene which reduces exposure to infections.

Water supply points and latrines need to be nearby to reduce the burden of distance as well as the risk to women and girls of rape while fetching water, which in turn reduces the risk of HIV infection. The design of water systems needs to take into account that those fetching water may be children or elderly people as a consequence of AIDS.

Babies who breastfeed from HIV positive mothers have a 10%-20% chance of becoming infected. However, babies who do not breastfeed are six times more likely to die from diarrhoea or respiratory infections than babies who are breastfeed. The World Health Organisation (WHO) and the United Nations Children's Fund (UNICEF) therefore promote exclusive breastfeeding for the first six months. Aside from needing access to safe water, formula feeding is expensive and often not culturally accepted. Whether breast feeding or not, clean water is crucial for HIV positive mothers and their babies¹¹.

From a **health perspective**, effective and hygienic use of improved water and sanitation can block the transmission of diseases that weaken the immune system and can therefore prolong the progression from HIV to AIDS.

Relentless diarrhea is often associated with rapid and severe dehydration and deterioration of the immune system¹².

In sub-Saharan Africa,

as a consequence of the HIV pandemic, it has become evident that diarrhoea is a major cause of morbidity in adults and a leading cause of death in the community and in hospitals¹³

Basic hygiene is one of the simplest and most important ways of slowing down the damage the virus does to the immune system of a person who is HIV-positive.

From a **human rights perspective**, lack of access to prevention methods, information, treatment and care leads to vulnerability to HIV infection, which is in turn linked to human rights violations such as poverty, inequality, racism and sexism. People living with AIDS are often unable to live a life of quality; dignity and freedom as their rights may be violated as a result of their HIV status. Similarly, access to safe water and sanitation is considered not only a basic need but also a human right.

From a **gender perspective**, women are disproportionately affected by HIV/AIDS as a result of gender-related social and economic inequalities. Women bear the main burden of AIDS

¹¹ Wegelin-Schuringa and Kamminga (2007:1), *Implications of HIV/AIDS for humanitarian work in the water and sanitation sector*, Unpublished paper for the EEHF Seminar, IRC.

¹² Epidemiology and measurement of diarrheal disease in HIV-infected patients, *International Journal of Infectious Diseases*, 1999; 33.

¹³ Local understanding of adult diarrheal disease and treatment in an area of high HIV seroprevalence in Zambia, *Tropical Medicine and International Health* 1998; 3:10.

care, are more susceptible to infection, and are economically and socially disempowered relative to men. Improved water supply and sanitation, especially water for productive purposes, can strengthen the livelihoods of women and reduce the time and monetary cost of HIV/AIDS care and treatment.

From a **community development** perspective, communities that are more empowered and stable are better able to sustain water and sanitation services and arguably also to cope with the impact of HIV/AIDS. Strengthening communities to manage water and sanitation will also strengthen communities to manage HIV/AIDS and vice versa.

From a **poverty alleviation perspective**, HIV/AIDS and a lack of safe water and sanitation are significant obstacles to reaching global poverty reduction targets and development goals. Adequate water supply saves labour and energy; contributes to diversification of income; generates nutritional value; reduces expenditure; improves health, and so on. It is crucial to sustainable livelihoods.

From a **water services sustainability perspective**, HIV/AIDS impacts on the sustainability of water and sanitation services in the following ways:

- Reduced ability of water users to pay
- Reduced ability of water users to spend time and energy on management, operation and maintenance activities
- Erosion of management capacities due to loss of social capital
- Demand-responsive approaches requiring household contributions such as labour or cash could exclude the most needy
- Child-headed households in particular are likely to be excluded from participation and unaware of safe water management practices and household level operation and maintenance requirements.

In summary, the combination of water, sanitation and hygiene education are key to reducing the impacts of HIV/AIDS.

2.2.1 The role of municipalities

Municipalities have a particularly important role to play in managing HIV/AIDS. The provision of water in sufficient quantity and of sufficient quality, and sanitation services that are affordable, accessible, reliable and used with appropriate health and hygiene practices:

- can help people with HIV to stay healthy longer
- increase the effectiveness of home-based care for people with HIV/AIDS
- support people's livelihoods
- are vital for community growth and development.

Research findings based on a review of national legislation and policy pertaining to local government, health and water services¹⁴ (see Appendix 1) indicate that health districts (i.e. District and Metro municipalities) should undertake at least a regulatory function in regard to environmental health. In fact, health districts have a similar planning, monitoring, regulatory and oversight role for environmental health services (EHS) as WSAs have for water services.

Through their District Health Plans, District and Metro Municipalities must plan for and ensure that appropriate environmental health services are effectively and equitably provided in their

¹⁴ *Towards integrated health and hygiene promotion and user education – Enabling and constraining factors*, Unpublished WRC Report, Sept 2005.

areas. This includes ensuring effective coordination both within the municipality (between health and infrastructure divisions), and with other departments.

Water Services Authorities (WSAs) should lead H&HE through water and sanitation infrastructure development. Given the inextricable linkages between water, sanitation and HIV/AIDS, H&HE linked to infrastructure provision must incorporate HIV/AIDS.

Yet most water and sanitation-related hygiene education programmes do not address HIV/AIDS, and most HIV/AIDS prevention and treatment programmes do not address the role of the hygienic use of water and sanitation services. There is rarely integration and the potential impacts on health, dignity and quality of life are compromised¹⁵.

HIV/AIDS is seen as a health issue, and most initiatives focus on prevention and treatment. Public health messages around 'healthy living' for HIV infected people focus on nutrition and exercise, without reference to the role of water, sanitation or hygiene in minimising exposure to pathogens and safe-guarding health. Similarly, the context of HIV/AIDS is not addressed in most water and sanitation related H&HE programmes.

When the inception field research set out to unpack the constraints to municipal H&HE within the context of HIV/AIDS, municipal and health respondents cited a lack of clarity of institutional arrangements, and a lack of resources as key issues.

The project therefore focused on a range of desktop and action research initiatives to develop a workable institutional model and strategies for implementation, as well advocacy materials and case studies to raise awareness.

¹⁵ Kgalushi, Smits and Eales (2004) *People living with HIV/AIDS in the context of rural poverty – the importance of water and sanitation services and hygiene education, A case study from Bolobedu, Limpopo Province, Mvula Trust.*

3. Methodology

3.1 *Enabling and Constraining Factors for Municipal Health and Hygiene Education*

3.1.1 Inception Phase¹⁶

In order to set the scene and guide the development of institutional models and strategies for municipal H&HE in the context of HIV/AIDS, inception desktop and field research was undertaken to:

- Review national legislation and policy pertaining to water services, environmental health services and HIV/AIDS, and understand how the policy environment enables water and sanitation-related H&HE in the context of HIV/AIDS.
- Unpack the implications of the National Health and Hygiene Strategy Related to Water and Sanitation Services¹⁷.
- Understand the institutional and financial arrangements in place for project-based H&HE¹⁸ in a range of pilot municipalities.
- Analyse the enabling and constraining factors for implementing effective project-based H&HE in the context of HIV/AIDS.

3.1.2 Desktop research

The review examined the relevant sections of the *Constitution of South Africa (108 of 1996)*; *Municipal Structures Act (117 of 1998)*; *Municipal Systems Act (32 of 2000)*; *Strategic Framework for Water Services (2003)*; *Water Services Act (108 of 1997)*; *National Health Act (61 of 2003)*; *White Paper for the Transformation of the Health System in South Africa*; *MIG Policy Framework (2004)*; *National Sanitation Strategy (2004)*; *National School Sanitation Strategy (2002)*; *the National Health and Hygiene Strategy Related to Water and Sanitation Services (2004)*, and the *HIV/AIDS Strategic Plan (2004)*.

Guidelines and documentation pertaining to the division of powers and functions for water services and environmental health services were also reviewed.

3.1.3 Field-based research¹⁹

A questionnaire was drafted (see Appendix 2) and qualitative focus group and individual interviews were conducted with the Acting Director of Environmental Health in the National Department of Health; the Provincial Department of Health officials and Health Educators in Mpumalanga; Water Services Managers and Community Education officials in five municipalities in three provinces: Ugu DM, Ilembe DM, Ethekwini Metro in KwaZulu-Natal; Central DM in the North West, and Nkomazi LM in Mpumalanga.

Interviews were also conducted with Sanitation Implementing Agents (IAs) in KwaZulu-Natal and the North West, as well as provincial DWAF support in Mpumalanga, and with several home-based care groups in several provinces.

¹⁶ See *Towards integrated health and hygiene education – enabling and constraining factors*, Project Inception Report, Research Report for the WRC, 2005.

¹⁷ *National Health and Hygiene Strategy Related to Water and Sanitation Services* (National Sanitation Task Team/ NSTT 2004).

¹⁸ The project focused on health and hygiene education within water and sanitation infrastructure development, or 'project based' health and hygiene education.

¹⁹ See Appendix 1 of the Inception Report for the list of interviewees.

3.2 Monitoring and Evaluating Project-based Health and Hygiene Education

Given that the inception process identified a lack of systematic monitoring and evaluation as a key constraint to prioritisation and resource allocation to project-based H&HE, a process was undertaken to:

- Review international literature best practice in monitoring and evaluating hygiene promotion.
- Document and share good practice monitoring indicators and systems
- Analyse the constraints to effective monitoring and make recommendations for addressing these constraints
- Propose a set of indicators that could be used to monitor H&HE in the context of HIV/AIDS

Monitoring practice examples, checklists and systems were documented from Mpumalanga province, eThekwni Metro in KwaZulu-Natal, and throughout Mvula Trust's rural sanitation implementation experience in the North West, KwaZulu-Natal, Northern Cape, Gauteng and Eastern Cape provinces²⁰. This research report is listed in Appendix 1.

3.3 The modelling process

The modelling process, (see Findings and Synthesis in Sections 4.2.3 and 5.3) focussed on making recommendations for institutional and financial arrangements. The research consisted of developing models for implementing water and sanitation-related H&HE at municipal level which were then tested in four test sites, namely:

- Chris Hani DM (Eastern Cape)
- Mbombela LM (Mpumalanga)
- eThekwini Metro (KZN)
- Ugu DM (KZN).

In each municipality interviews were carried out with a wide-ranging group of key respondents. Appendix 4 presents the interview schedule used for those interviews, while Appendix 5 presents a list of all respondents. The models used in the interviews were developed jointly from the existing research conducted as part of this project, as well as the National Strategy for H&HE (NSTT, 2004). While the interview schedule was used to guide discussion broadly, in practice a document showing the various models was used to stimulate and focus discussion. Although the focus was on project-based H&HE, models and diagrams reflecting on-going, school and emergency H&HE were also discussed, depending on the specific interest and experience of the respondent.

In addition to the interviews, a multi-sectoral workshop was held in two of the municipalities to attempt to construct, from local experience and perceptions, models of how H&HE should be implemented in that particular context (see Appendix 6 for a list of workshop participants). This information and feedback, combined with information derived from previous work done for this project has been incorporated into this report.

A guiding principle for this fieldwork was that that any models to be developed should take conditions 'on the ground' and as experienced by municipalities across the country into

²⁰ *Indicators of integrated hygiene promotion*, WRC Research Report 2006.

account. While reflecting national policy and strategies, the models should be workable and sustainable, hence the commitment to wide consultation, across sectors.

3.4 Advocacy Materials for Water Services, Hygiene Education and HIV/AIDS

Given the generally low priority ascribed to project-based H&HE as well as the lack of sector specific information and guidance concerning the crucial linkages with HIV/AIDS, the project Reference Group approved the development of a set of advocacy materials. The advocacy materials developed were:

- 3.4.1 **A literature review** of international and local material pertaining to the **linkages between water services, health and hygiene education and HIV/AIDS**²¹ (see Appendix 1).

The review focused on the links between water services, hygiene education and HIV/AIDS, and on the role of local government and water services authorities in responding to HIV/AIDS challenges.

- 3.4.2 Qualitative **Case Studies**²² (see Appendix 1) on the water and sanitation needs of households affected by HIV/AIDS through the experiences of home-based care groups in Jeppe's Reef, Nkomazi, Mpumalanga and in Cofimvaba and Sada in the Chris Hani district of the Eastern Cape.

The case studies were developed through field visits to approximately 20 households and in depth interviews with four home-based care groups, namely iThembalethu in Jeppe's Reef and Themba, Ntsikayethu and Ucedo in Cofimvaba and Sada. In total 15 home-based care group members participated in the field work towards these case studies.

Clinic sisters and Community Health Workers (CHWs) were also interviewed in Sada, Chris Hani district.

A questionnaire was drafted (see Appendix 3) and used for gathering demographic and case material through focus group and in depth individual interviews and field visits with members of four different home-based care groups, and Primary Health Care personnel such as clinic sisters and CHWs.

The purpose of the field research was to document the experiences of people living with and supporting others living with HIV and AIDS.

- 3.4.3 **A DVD and booklet "Water Services and HIV/AIDS – Municipal Challenges"** aimed at raising awareness of Councillors and officials concerning water, sanitation and hygiene delivery in the context of HIV/AIDS.

²¹ *Rationale for integrated approaches to HIV/AIDS and water services at municipal level*, WRC Research Report, 2006.

²² *Understanding the links between AIDS, water, sanitation and hygiene – Experiences from Jeppe's Reef, Nkomazi, Mpumalanga* (2005) and in *Rationale for integrated approaches to HIV/AIDS and water services at municipal level*, WRC Research Report, 2006.

The DVD²³ (see Appendix 1) was made by documenting the daily tasks of the iThembalethu Home-based Care Group lead by Mrs. Bridgette Moyana in Jeppe's Reef Mpumalanga, and an interview with Councillor Obed Mlaba, Deputy Chairperson of the South African Local Government Association (SALGA) and Mayor of eThekweni Metro in KwaZulu-Natal. The approach used was to capture the voices of people living with HIV/AIDS regarding the role of water, sanitation and hygiene, and to profile a senior municipal response to addressing HIV/AIDS challenges through effective water services.

The DVD contains a booklet²⁴ (see Appendix 1) aimed at providing guidance for local councillors and government officials responsible for water, sanitation and municipal health services on the role of water services and hygiene education in the context of HIV/AIDS.

3.4.4 ***Publications, presentations and influencing the sector.***

The work undertaken in this project had a range of spin offs and linkages with important sector developments and processes. Most notable were:

- Input to the design of the roll out for the National Sanitation Task Team's (NSTT) National Strategy for Health and Hygiene Education Related to Water and Sanitation (NSTT, 2004)
- Mainstreaming HIV/AIDS in the water sector initiatives undertaken by the HIV/AIDS sub group of the Water Services Sector Leadership Group
- Content input into HIV/AIDS focused awareness raising materials for Sanitation Week 2007.

A range of publications and presentations were also produced:

- Mvula Trust Diary chapter: The links between water, sanitation and HIV/AIDS (2006)
- Impumelelo Awards Trust Best Practice Workshop presentation (2006)
- Water Wheels publication (2005)
- TCI Local Government Water Services Conference presentation (2006)
- World AIDS Day Water Sector Workshop 1 December 2006 presentation
- Water Health and Livelihoods (WHELL) project - fed into Briefs 1-4 – Legislative and Policy Review of Local Government Water Services, HIV/AIDS and Gender
- Special focus Mvula Trust publication (Maru-a-Pula).

3.4.5 ***A WRC publication²⁵*** aimed at providing guidance for municipal water services and health officials and councillors on water services H&HE in the context of HIV/AIDS (see listing in Appendix 1). This publication sets out framework for mainstreaming HIV/AIDS in local government governance and development planning, specific roles of Water Services Authorities, an institutional model, and specific strategies for implementing municipal H&HE in the context of HIV/AIDS. It documents the key innovations that emerged from the project.

²³ *Water Services and HIV/AIDS – A DVD for Councillors*, available from the Water Research Commission and the Mvula Trust (jonathan@mvula.co.za)

²⁴ *Water Services and HIV/AIDS – A booklet for local government councillors and officials responsible for water, sanitation and municipal health services* (2007), available from the WRC.

²⁵ *Water Services and HIV/AIDS: A Guide for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services*. TT Report Number: xx, WRC, 2007.

4. Findings

This section presents a synthesis of findings from the various components of this project (see Appendix 1). It covers findings from:

1. Legislative, policy and literature reviews.
2. Action research
 - Inception phase
 - Monitoring
 - Modelling of institutional and financial arrangements.
3. Case studies
 - HIV infection rate
 - Stigma
 - Water and sanitation needs
 - Support for home-based care
 - Links with other social services
 - The motivations of home-based caregivers.

4.1 Findings from Legislative, Policy and Literature Reviews

The main findings from the desktop legislative, policy and literature reviews are as follows:

- The combination of water, sanitation and hygiene education are key to reducing the impacts of HIV/AIDS.
- Health districts (i.e. District and Metro municipalities) must undertake at least a regulatory function in regard to environmental health services. Health districts have a similar planning, monitoring, regulatory and oversight role for environmental health services as Water Services Authorities have for water services.
- Water Services Authorities (WSAs) are responsible for developing water and sanitation infrastructure in order to ensure access to at least a basic level of water services for all. WSAs should therefore lead H&HE as a core component of water and sanitation infrastructure development.
- Customer care, communication and user education are key water services provision functions. Water Services Providers (WSPs) – whether internal or external to the WSA – therefore have a key role in ongoing H&HE.
- The policy and legislative framework enables integration between water and environmental health services at municipal level through a clear division of powers and functions, clear legislative definitions, ensuring municipal planning synergies, providing for the regulatory role of national departments, and facilitating inter governmental and inter departmental collaboration.
- Reducing the impacts of HIV/AIDS has implications for the level of water and sanitation services provided, the level of subsidies needed to make the services affordable and the hygiene education activities required to support the provision of water and sanitation services.

- WSAs can reduce the impact of HIV/AIDS by:
 - ensuring that investments are made in appropriate water and sanitation services infrastructure, and making arrangements to either increase or supplement funds from the MIG so that higher levels of service can be provided for households affected by HIV/AIDS
 - developing appropriate water services policies and by-laws that take into account the needs of communities affected by HIV/AIDS
 - setting tariffs to subsidise services for the most vulnerable
 - planning water services in the context of HIV/AIDS and take into account the impact of HIV/AIDS on water demand
 - Regulating water services provision and water services providers to ensure that contractors and water services providers uphold these bylaws and that vulnerable communities have access to adequate and affordable levels of water and sanitation services
 - Facilitating water and sanitation for growth and development and
 - Ensuring H&HE as part of basic water and sanitation provision.

4.2 Findings from Action Research

4.2.1 Inception phase

Action research interviews and focus group sessions with municipal water services and environmental health services officials revealed the following constraints to water and sanitation-related H&HE in the context of HIV/AIDS:

- lack of clarity regarding fairly complex institutional arrangements where human resource and budget transfers were not complete;
- a lack of financial resources to support the devolution of environmental health services;
- insufficient prioritisation and understanding of the value of project-based H&HE;
- a lack of standardisation and effective use of H&HE tools, materials and approaches;
- inadequate measuring and monitoring of the efficacy of hygiene education, and
- capacity constraints.

These factors are addressed in the synthesis and recommendations section of this report.

Interviews and focus group sessions also revealed the following enabling factors:

- a growing awareness of the need for hygiene education linked to water and sanitation delivery, as well as the need for water services to reduce the impacts of HIV/AIDS;
- provincial and municipal collaboration and coordination through district forums;
- the development of municipal monitoring and information systems;
- the existence of SAQA approved HIV and hygiene-related qualifications and skills programmes, and
- the need for integrated service delivery to ensure local economic development impacts were also identified as enabling factors.

These factors are also addressed in the synthesis and recommendations sections of this report.

4.2.2 Monitoring project-related health and hygiene education

Effective monitoring of H&HE is needed in order to:

- Document and share successes and good practices
- Measure the outcomes of health and hygiene investments

- Ensure that H&HE is properly prioritised and resourced
- Learn lessons and take corrective action as appropriate.

However, for the most part:

- The efficacy of H&HE is not being monitored, measured or documented, except at project level.
- The lack of monitoring and documentation also means that lessons are not learnt and shared, similar mistakes are repeated at cost, good practice is not disseminated, and corrective action is not taken.
- There are a range of reasons for this including capacity and financial constraints, lack of institutional clarity, lack of performance measures and indicators and limited access to health and hygiene baseline information.

A set of 'best practice' objectives and indicators for monitoring H&HE have been identified as follows:

Objectives	Indicators
General use of safe water sources for drinking	Availability of sufficient quantities of safe, accessible drinking water
Households store and use water hygienically	Cover for container, raised platform for container, long handled dipper to draw water, absence of flies around container, no communal drinking cup
Users keep area around place of water collection in a sanitary condition	Adequate drainage, presence/ condition of a fence, absence of garbage around water point
Safe disposal of wastewater	Presence of soakaways for drainage, no pools of stagnant water, run offs into garden, garden cooperatives, etc
All household members have and use an adequate toilet	Presence of latrine, absence of soiling, presence of cleaning agents (water, paper in latrine), flies, no excreta in the yard or on the floor of the toilet
Hand washing with cleansing agent after toilet use and before cooking and eating	Presence of water for hand washing in or near toilet, presence of soap, ash or cleansing agent near latrine
Solid waste disposal	Surrounding environment clear of rubbish, rubbish pit covered or burned

All of these hygiene and user practices will contribute to supporting people living with or caring for people living with HIV/AIDS. Where water and sanitation-related H&HE integrates an HIV/AIDS focus, the only additional indicators could include the presence of a food garden or healthy foods at household level and the presence of antiretroviral drugs and regime, and of immune supporting agents.

4.2.3 Findings from the modelling

The modelling process, which occurred towards the end of the study, used models derived from the research findings of this project as well as the National Strategy (NSTT, 2004). This process prompted wide-ranging discussion which served both to confirm earlier research findings, and to provide an opportunity to update these findings.

The National Health and Hygiene Education Strategy

The modelling process found that the National Strategy for Health and Hygiene Education in Relation to Water and Sanitation (NSTT, 2004) is acceptable and in most cases represents current reality reasonably well, with some key exceptions. Significant amongst these is the absence of discussion around the role of MIG PMUs (because the strategy pre-dates their introduction). It was found that MIG PMUs play a direct role in the infrastructure development aspects of most water and sanitation projects. Consequently, most H&HE is funded from the MIG fund. It follows, therefore, that H&HE tends to fall within the scope of the MIG PMUs. A significant impact of this is to reinforce the short-term, project-related nature of the H&HE that is provided. This raises for debate the nature of funding for H&HE. This report recommends that a careful review of funding mechanisms in relation to effectiveness of H&HE is carried out.

The National Strategy places great emphasis on the role of WSPs in providing project-based H&HE. It was found that some are attempting to fulfil this mandate, but in fact, this is misplaced (in relation to project-based H&HE). WSPs play little or no role in this particular aspect, so steps need to be taken to clarify this confusion.

Environmental Health Practitioners

The devolution of EHPs to DM level has only very recently begun to take place (a date of 1 July 2007 has been set for this), so the role of EHPs needs to be reviewed. The National Strategy anticipates a high level of involvement of EHPs in project-based H&HE, but it seems that they will not generally have the capacity to fulfil such a mandate. Nevertheless, as will be mentioned shortly, increasing the involvement of EHPs in project-based H&HE is encouraged because it provides for far greater continuity in service, and enhances the developmental processes in local communities.

Concerns around short-term approach and reduced effectiveness

The research found that there is widespread reliance on ISD practitioners to carry out H&HE functions. While this increases municipalities' capacity to provide this service, it has the consequence of making project-based H&HE a short-term activity that ends as the project ends, with very little follow-up or continuity. This is a significant shortcoming of the 'ISD model', which is why an increasing use of EHPs in this role is encouraged.

The same applies to CHWs, whose greater involvement is also encouraged. Most CHWs are not normally involved in project-based H&HE, but they have been seen as an important potential role-player. However, the research found that most CHWs are heavily involved in home-based care work (related to HIV/AIDS) and are not necessarily available for water and sanitation-related work. While this is a disappointing finding, it represents an opportunity for providing water and sanitation-related training to CHWs who can then, within their existing spheres of influence, educate people about the linkages between water, sanitation, good hygiene practices and managing the impact of HIV/AIDS.

Consistency across most municipalities

At the outset of the modelling process it was expected that a range of models would emerge, suitable for the range and spread of different municipalities in the country. However, it was found that there is a fairly high level of consistency across municipalities, and thus a single consolidated model was developed with implementation guidelines to cater for specific variations.

Collaboration

It was found that there is generally a low level of collaborative planning and implementation. Apart from some specific cases such as the NSTT and some PSTTs, few other national,

provincial or even regional forums for the water services sector seem to operate effectively. At WSA level the same is generally true, particularly in the larger municipalities. At project level project steering committees are in general use – some operate as technical committees while others have a more consultative and collaborative approach. As a result of these findings, and as identified in the section on constraining factors, this is an issue which requires attention. This report makes recommendations in this regard.

Standards and standardisation

The research found that standards and effectiveness of H&HE programmes vary considerably. It identifies the need for some form of standardisation of provision, of setting minimum standards of provision and for accredited training of ISD practitioners. There are numerous recommendations in this regard, including influencing training curricula for a range of role-players in this field.

Impact of funding arrangements

Funding arrangements were found in many aspects, not to be problematic. However, as mentioned above, the MIG funding mechanism for project-based H&HE is a significant constraining factor to effective and developmental implementation of H&HE.

HIV/AIDS

A critical gap in most cases is that HIV/AIDS is not addressed, almost at all in project-based H&HE. In some cases, particularly where the SITpack (Sanitation Information and Training Pack) is in use, some have inserted a module on HIV/AIDS. This represents a major failing, and also a major opportunity, and the report makes a number of important recommendations in this regard.

Monitoring

Regarding monitoring, while various key performance indicators (KPIs) and sanitation improvement indicators exist, they are seldom used for monitoring purposes. Records of lessons learned are also not generally kept. The only monitoring activities that were identified during the research was the follow-up visits made by some ISD practitioners in collaboration with their team of H&HE facilitators after the project had been handed over and the new facilities had been in use for some time, often 3 or 6 months. This monitoring is important as it identifies where people are not using their facilities correctly or maintaining them properly, and remedial action can be taken. However, this practice is not widespread and represents an important gap in service provision.

4.3 Findings from Case Studies

Although it is potentially misleading to extrapolate from a small sample (twenty households and fifteen home-based caregivers from four home-based care groups in rural and peri-urban settlements in two provinces), there is no reason to expect that the findings from this field research would differ from disadvantaged rural and peri-urban settlements elsewhere in South Africa.

From the experiences of the home-based caregivers interviewed and households visited and interviewed (where possible), the main findings are as follows:

4.3.1 HIV infection rates

While HIV infection rates were not specifically sought out, it is notable that in a block of approximately fifteen households, seven households contain people who are actively ill or taking TB or antiretroviral medication.

Having worked in HIV/AIDS care in Jeppe's Reef for more than ten years, the co-founder of the iThemba lethu Home-based Care Group said:

All I can say is that this area is dying and we are hardly scratching the surface – more than half the households we visit have someone who is sick, mostly young people (Bridgette Moyana).

4.3.2 Stigma

The home-based caregivers interviewed indicated that it had taken years to encourage noticeably sick people to get tested and treated, and that denial was a big part of the problem.

Most people know about it but don't believe people are sick until they see it. Some are locked away and their families refuse care – they say no one is sick here (Rose Moyana).

Many people reported stigma and discrimination on revealing their HIV status:

The young boys would find me collecting water from the tap and point fingers and say AIDS, AIDS, AIDS (Mrs. Nkosi²⁶).

4.3.3 Water and sanitation needs

Many AIDS-affected households interviewed had unauthorised connections to communal standpipes.

I was too weak to fetch water from down the road and the children would not help me so I bought the pipes and connected up" (Mrs. Ndlovu)²⁷.

While there seemed to be a degree of tolerance to this on the part of other households, this will ultimately affect the flow rate and sustainability of the scheme.

The caregivers interviewed expressed how much more manageable their work would be if AIDS-affected households could have taps in their yards. This would enable them to nurse and care for greater numbers of sick people rather than waiting for or collecting water from standpipes at a distance from households.

They also felt this would also enable household level food production, as good nutrition is crucial for the immunity of HIV positive people and for taking antiretroviral medicine. Although trench gardening is used in places, there is not enough water to sustain food gardens in the dry season.

People with HIV/AIDS and their carers need:

- a supply of clean water that is reliable and easy to obtain in sufficient quantities
- toilet facilities that are hygienic, private and nearby

When water is not in the yard and also comes out at particular times only, it makes it very difficult for us to wash clothes, clean houses and bath our patients when we visit them during out house call duties (Ms Thwala).

²⁶ Real name withheld.

²⁷ Real name withheld.

Water quality – clean water is needed for taking medication, preventing diarrhoea and infant feeding where formula feeding is affordable and acceptable.

Water quantity – Home-based caregivers indicated that they require 200 litres of water a day to care for their patients – 75-100 litres for laundry and the rest for cooking, bathing and drinking. The groups also indicated that the water for bathing and doing laundry is disposed in toilet pits and not used for any other purpose as it is used for washing soiled clothing and bedding and contains disinfectants. Water in sufficient quantities is also needed for avoiding dehydration from diarrhoea, for increased demands on water borne sanitation systems, for washing, and for small scale production.

Toilet facilities - People with HIV/AIDS need toilet facilities that are nearby as they may be too weak to walk very far. If a person is very sick, their carer may need to help them in the toilet.

These spiral toilets are not good for households with sick people, as often we need to carry or accompany a person to the toilet because they are too weak to walk. The spiral toilet does not make it easy for two people to fit in it, but we are very happy about the VIPs that are there (Sarah Baloyi).

Like everyone else, people with HIV/AIDS deserve to have toilets that provide privacy, to preserve their dignity.

Patients cannot walk to dongas, They are too weak for this (Nowelile Mawela).

4.3.4 Support for home-based care

The caregivers expressed frustration that their work receives little recognition from local municipalities, clinics or hospitals. One home-based care group reported that their municipality did not accept that HIV was a serious problem in the area and claimed they were exaggerating in order to access donor funding.

In some cases, local clinics provided limited equipment like gloves, towels, linen savers, gauze bandages, Savlon and Jeyes fluid. In other cases they did not, saying it was not legal to do so.

In Mpumalanga, home-based caregivers had accessed training through the provincial Department of Health. Most caregivers are paid a stipend of between R100 and R300 a month. Others work entirely voluntarily. This creates financial stress and contributes to family tensions because *some of our families say we are caring for other households at the expense of our own.*

The linkages between home-based care groups do not appear to be well established and there is a degree of tension and competition for funding and support.

The caregivers also indicated that:

It is sometimes very difficult to do this kind of work because the community thinks we are earning a lot of money from government. It is also emotionally taxing to watch an infected person slipping away during the last stages. It is depressing.

Conditions are also often very challenging:

The ambulance is sometimes not available to come and take my patients from Cofimvaba township to hospital so I have no choice but to put them in a wheelbarrow and take them to hospital myself (Nozibele Mbongi).

4.3.5 Links with other social services

Concerns were expressed about the need for improvement in the administration of social service provisions such as disability grants and child care grants. For example, many women do not disclose the paternity of their children and after they die, grandparents are unable to apply for child care grants. This places a huge burden on grandparents and their pensions. Home-based caregivers felt that the Department of Welfare and Social Development could improve the situation by engaging with and supporting civil society organisations providing food parcels and other supportive measures.

In another example, there appeared to be a 'conspiracy' between the Departments of Welfare and Home Affairs in terms of delays in processing applications for South African identity documents, ARV treatment and social grants.

4.3.6 The motivations of home-based caregivers

Many caregivers are faith-based and sustained by the benefits to the people they care for.

When a person starts to accept their illness or gets better. Even if they pass on, if it happens at a time when they have started talking and sharing how they are feeling.

The majority of caregivers have been personally affected by HIV/AIDS:

I have buried four people in my house of AIDS (Mrs. Tshabalala).

I am also positive and I help because one day I will need help (Thandi Matetiso).

It's very tough – it's not pap and vleis – but when I always think about that verse that says 'I was hungry - did you feed me, I was naked - did you clothe me, I was in prison – did you visit me', and it makes me walk tall. It may be a drop in the ocean but I'm doing something. I lost both my parents to AIDS in 1996 (Bridgette Moyana).

5. Synthesis

This section of the report presents a discussion of the findings in more detail. It begins by describing factors that constrain or enable the implementation of H&HE at municipal level. These factors have informed the entire research project and have resulted in the development of models that address the constraints and take advantage of the enabling factors. The remainder of the section then presents and describes the models (which are in effect the institutional and financial arrangements).

5.1 *Constraining factors*

This section of the report analyses constraints to the implementation of integrated H&HE in the municipal context. These constraints have been identified through interviews with national, provincial and local stakeholders and through a review of sectoral policy and advocacy documents.

Constraints are discussed in relation to institutional and financial arrangements, prioritisation, approach and methodology, capacity constraints and monitoring and measuring impacts of H&HE.

5.1.1 **Institutional Arrangements**

The increasing decentralisation of governmental responsibilities has resulted in institutional complexities in environmental health services that require innovation and research. Integrated H&HE through water services improvement finds itself in institutionally complex terrain. Arguably similar legislative roles and functions for H&HE fall across a number of role-players including provincial health officials, and health practitioners and water services staff in district, metropolitan and local municipalities.

At the commencement of this project the lack of clarity about the respective roles of national and provincial DoH and within the local sphere itself was a clear constraint raised repeatedly by respondents to interviews conducted for this study. Since then, greater clarity has emerged, which to some extent reduces this issue as a constraint. However, there is still a constraint in that the devolution of EHPs to DMs has not been completed, and while the implementation date of 1 July 2007 still seems on track (at time of writing), beyond that date a considerable amount of organisational work needs to be done to fully integrate ex-provincial (and ex-LM) EHPs into DMs.

Likewise, while the National Strategy for H&HE allocates project-based H&HE clearly to the EHS at DM level, the reality, both now and into the near- to mid-future suggests that project-based H&HE will remain within the ambit of WSAs / MIG PMUs and will be driven by ISD practitioners. EHPs will gradually (in most cases) move into this role, quicker in those DMs with vision and commitment to promoting health in relation to water services infrastructure, and perhaps slowly or reluctantly in others.

So the primary constraints lie in the relationships or linkages between EHS and water services and how changes in those relationships are managed over time.

Another related constraint is for LMs that are authorised as WSAs, because they do not have municipal health services. As the devolution process takes place, it seems that many DM EHPs will, in fact, be located within LMs, but that is still many months or several years down the line. In the interim, LMs need to negotiate service support agreements with DMs for the

deployment of EHPs to provide a H&HE function within their water and sanitation infrastructure projects. This constraint requires commitment and collaboration to deal with.

A constraint that is linked to the way H&HE is funded emanates from the fact that many WSAs leave H&HE to the discretion of an external agent implementing water and sanitation (more commonly sanitation) infrastructure on their behalf. Where these implementing agents (IAs) set aside part of the project budget (usually a MIG allocation) for H&HE, it happens and where they prefer to make the profit, it doesn't.

The potential reasons for this are discussed in Sections 5.1.2 and 5.3.4 of this report, but it is important to note that DWAF should be playing a far stronger regulatory role in this regard, as this clearly indicates a lack of compliance with the National Sanitation Strategy.

Even where an IA is ensuring H&HE through infrastructure implementation, there is no coordinated strategy for follow-up support and monitoring by municipal or provincial health personnel.

The implementation model presented in this report begins to address this constraint, primarily through recommending increasing involvement of EHPs in project-based H&HE in order to provide continuity. Likewise, the involvement of CHWs and Community Development Workers (CDWs), and the presentation of the primary health care (PHC) system on the WSA / district-level coordinating forum, go some way to ensuring continuity beyond the project.

At project level, the allocation of responsibilities between local residents, project support teams, municipal and provincial health personnel are often confused, resulting in duplication of effort in some areas and neglect in others. Again, this report begins to address this constraint by identifying good practice and making strong recommendations in that regard.

5.1.2 Financial Arrangements

If it is accepted that WSAs should drive H&HE for the reasons presented in the previous section, how will they fund this given that the MIG allocation is for infrastructure only? While some municipalities do require that a portion of the MIG is used for H&HE, a major constraint is that many WSAs do not, with the result that in such cases H&HE is simply not provided, or it is done in a cursory manner. While the primary funding mechanism for water services infrastructure remains the MIG fund, this constraint will continue, except where IAs are committed to, or WSAs enforce the provision of project-based H&HE.

This report makes recommendations around reviewing the funding of infrastructure development in the water service sector. In addition, the recommendation that EHPs play a greater role, means that MIG funding will not be required, except where external consultants (e.g. ISD practitioners are employed to carry out the delivery of H&HE.)

One option may be a conditional grant for sanitation-related user education, within and beyond the scope of a project, which the Department of Health administers and disburses on the basis of an agreed programme between key district and local stakeholders. WSA / district-level coordinating forums provide an obvious coordination point.

5.1.3 Insufficient Prioritisation

Despite the above-mentioned financial constraints, many WSAs are ensuring water and sanitation-related H&HE because they see it as a priority.

The reasons for a lack of prioritisation in other WSAs could be related to:

- The lack of clarity around institutional roles and responsibilities.

- An emphasis on meeting water services delivery targets speedily - monitoring and performance systems are concerned with numbers of toilets built and numbers of people served.
- Pace of delivery and financial constraints also affect the contact time and impact of H&HE through water and sanitation development.
- In some cases other arrangements are in place and health districts are undertaking H&HE, so WSAs don't feel they need to duplicate this work.
- ISD has a relatively poor track record in some areas; as there has been little ISD capacity and documentation of its successes, spin offs, impacts and longer term cost savings.
- There is also a lack of prioritisation on the part of provincial DoH – in forums where sanitation-related H&HE is addressed, for example, there is little participation from these officials, perhaps because sanitation isn't a priority for them.

This report addresses a number of these constraints. For example, it goes a long way towards clarifying roles and responsibilities and making implementation recommendations around these issues.

Importantly, it identifies significant gaps in ISD training and accreditation and makes key recommendations to formalise this important sector.

The report makes recommendations around participation in provincial sanitation task teams or coordinating forums as well as WSA / district-level coordinating forums that will assist in raising the status of H&HE.

Regrettably, while H&HE is linked to infrastructure projects via the MIG fund, the pressure for delivery will usually de-prioritise H&HE. In addition, as most infrastructure delivery is carried out by private contractors, the tendency will be to minimise activities perceived as 'extras' in order to maximise profits. The report makes key recommendations to address this problem.

5.1.4 Approach and Methodology

The purpose of H&HE is primarily to change hygiene-related practices and behaviours. Approach and methods used are therefore crucial to the impact of these interventions. The following list of constraints was presented in this project's Inception Report²⁸ (see Appendix 1).

It should be noted, however, that approach and methodology were not included in the ambit of subsequent work in this project, so these constraints have not been addressed directly. The list is included here for reference.

There are numerous concerns about current approaches and methods for H&HE:

- Using one or a restricted set of methods
- H&HE restricted to the project context and timeframe
- H&HE through the provincial DoH is usually emergency reactive (e.g. cholera and bilharzia) rather than systematic and ongoing
- Lack of coordination with other role-players in the sector
- Lack of standardisation and quality control:
- Unclear messages

²⁸ Towards integrated health and hygiene promotion and user education: Enabling and constraining factors. WRC Project inception report, Mvula Trust, September 2005.

- Inappropriate methods:
 - Health promoting messages not linked with user education
 - Information about what to do when the pit is full is not often provided
 - H&HE initiatives often fail to take account of constraints that inhibit adoption of the good practices they promote
 - There is no integrated approach to H&HE in water and sanitation projects
 - No links between H&HE and the various water and sanitation technologies.

The Inception Report (see Appendix 1) provides various solutions and recommendations towards addressing the above challenges. Appendix 7 to this report provides proposed minimum standards of H&HE methodologies and content areas²⁹.

5.1.5 Monitoring and Measuring Impact

For the most part, the efficacy of H&HE is not being monitored, measured or documented, except perhaps at project level. This in turn impacts on the importance ascribed to H&HE, and whether it is prioritised and how it is resourced. The lack of monitoring and documentation also means that lessons are not learnt and shared, similar mistakes are repeated (at cost), good practice is not disseminated and corrective action is not taken.

There are a range of reasons for this including capacity and financial constraints, lack of institutional clarity, lack of performance measures and indicators and limited access to health and hygiene baseline information. Work is clearly required to address these constraints.

DWAF's key performance indicators for monitoring the outcomes of H&HE programmes are attached as Appendix 8 to this report. This could provide a basis for WSAs to develop monitoring and evaluation systems. Section 5.1.5 deals with monitoring in more detail.

5.1.6 Capacity Constraints

Capacity refers to both health and hygiene-specific knowledge and expertise and the available numbers of human resources (H&HE facilitators). Respondents frequently cited lack of available capacity as a constraint to H&HE. The links between capacity constraints and financial and institutional arrangement issues are self-evident.

Capacity in environmental health services is limited – the ratio of Environmental Health Practitioner (EHP) to population is roughly 1:15 000³⁰ and it is estimated that water and sanitation comprises only about 10% of an EHP's activities.

EHPs are expected to undertake both a regulatory/ oversight role in relation to environmental health ("the clipboard") and a hands on/ participatory provision role at community level. At the commencement of this project it was found that job descriptions need to be clarified. Now that EHPs are being transferred to DMs, that becomes an even more pressing requirement, as job descriptions will change, particularly with the greater emphasis on EHP involvement in project-based H&HE.

Very few WSAs have the resources to employ full time ISD practitioners let alone health practitioners. The solution to this has been to use ISD practitioners, funded from MIG. This has led to its own constraints as outlined earlier.

Health promoters also implement a range of community-based health activities, and are often based in local clinics and managed by clinic sisters.

²⁹ National Health and Hygiene Education Strategy 2004.

³⁰ Capacity Building for EHPs, DWAF 2004

CHWs are sometimes used in project-based H&HE. However, CHW capacity is affected by a range of factors. CHWs often work voluntarily, which, despite their strong commitment, is not ideal, not sustainable in the long run. Increasingly, they have been pulled into the HIV/AIDS home-based care sector, rendering them less and less available for other forms of health work. With limited funding and fast-tracked delivery, CHWs are also often too thin on the ground to make a meaningful impact and become overstretched and despondent. As a result, work that generates an income will be prioritised; delays in project start-up cause CHWs to become impatient and seek alternative employment, and so on. This study acknowledges this constraint and recommends also identifying local people as (paid) H&HE facilitators, working increasingly with EHPs and CDWs (where appropriate).

Until recently there has been very little emphasis on SAQA and NQF aligned training and career-pathing for sanitation and health practitioners. The importance of accredited, standardised, outcomes-based training and development for sanitation and health personnel cannot be over-emphasised. This constraint has been comprehensively addressed in this report.

5.2 Enabling factors

At the commencement of this project (see the Inception Report) factors that potentially enable more effective integrated H&HE through infrastructure development were identified. These enabling factors and opportunities were analysed in terms of the policy and legislative framework, plans and planning, awareness, forums and task teams, municipal monitoring and information systems, accreditation and training materials, and linkages with the productive use of water.

5.2.1 Policy and Legislative Framework

Decentralisation: The increasing decentralisation of environmental health services to municipal level will allow for more equitable and locally relevant environmental health services and there is clear political commitment to the District Health System. Municipal health services are now clearly defined for the first time.

Clear division of powers and functions: After a long period of uncertainty, district and local municipalities are clear on their respective powers and functions for both water and municipal health services. Where environmental health was previously focused on white towns, municipal health services will ensure that these resources are more equitably allocated across districts.

Assessments of provision arrangements: As a result of the division of powers and functions, WSAs and health districts are reviewing and deciding on provision arrangements, i.e. which mechanism/s will actually carry out the service on an ongoing basis. As H&HE is a key part of customer care, there are important linkages between H&HE and water services provision functions and funding arrangements.

DMs are often both WSAs and health districts: Where the WSA is a DM or a Metro and therefore a health district, water and sanitation infrastructure development is a logical flashpoint for H&HE. Improved coordination between health and infrastructure divisions and functions within the municipality will facilitate greater integration. Linkages can be made with national and provincial DoH HIV/AIDS programmes.

Although some WSAs are LMs and therefore not health districts and the transfer of staff and funds have not accompanied the transfer of environmental health functions to DMs, respective roles and responsibilities can be defined through service level agreements between provincial health and district and local municipalities.

There is also a clear drive from the national DoH for a grant from national to fund environmental health services at municipal level.

Definition of water and sanitation services: The policy definitions of basic water and sanitation services, as well as national targets definitively include health and hygiene practices, communication and promotion.

Municipal planning synergies: The legislative framework also creates an enabling environment in terms of allowing for synergy and alignment in the various municipal planning processes and products. Where the WSA is a district or a metro municipality, it must ensure alignment between its IDP, WSDP and district health plan. Where the WSA is a local municipality, it must ensure that sanitation-related H&HE is addressed in its WSDP and that this aligns with the DM's district health plan. In both cases, roles and responsibilities can be agreed and reflected in service delivery agreements and respective plans.

DWAF's regulatory function: Where provincial DWAF undertakes its regulatory functions effectively, the provisions of the White Paper on Basic Sanitation are implemented and all sanitation improvement programmes are coupled with H&HE and user education.

Intergovernmental co-operation: The legislative and policy environment encourages co-operation and collaboration within and between spheres of government and across sector departments. Although this is more difficult in practice than in principle, co-operation and coordination within and between government is crucial for integrated H&HE. District Health Councils have the legislative function to ensure coordination and co-operation.

Participatory governance: The Ward Committee system is designed to enable community participation in local government matters. These structures, comprised of local residents, can enable participatory approaches to H&HE, which are widely accepted to be more effective than didactic approaches.

5.2.2 Growing Awareness

Through the research interviews conducted as part of this study it became apparent that there is a growing awareness amongst municipalities and service providers of the importance of H&HE, and that despite the constraints, sanitation improvement entails considerably more than infrastructure provision.

It also became clear that there was a new awareness of the need to integrate water and sanitation-related health promotion with HIV/AIDS health promotion, as well as to ensure proper user education in order to achieve toilet sustainability and intended developmental impacts.

If health problems arise from water and sanitation problems or related education, the WSA has to deal with the consequences, so it's in their interest to ensure effective H&HE and user education.

5.2.3 Provincial and Municipal Collaboration (Forums & Task Teams)

The value of collaborative forums at municipal and provincial level was also apparent. Forums such as the WSA Forums/ Working Groups in Mpumalanga and the Provincial

Sanitation Task team in KwaZulu-Natal have representation from WSAs, health districts, provincial health departments, provincial sector departments, provincial departments of local government and service providers.

These forums are creating a mechanism for coordination, liaison, monitoring and support by departments, lesson learning, communication, collaboration and problem solving. The Forums also monitor MIG project planning, implementation and expenditure. There is thus general support (in principle) for the strong recommendations made later in this report for effective participation in coordinating forums.

5.2.4 Municipal Monitoring and Information Systems

Where WSAs have effective monitoring and information systems in place, they are able to see the benefits of H&HE. With GIS and useful information, the eThekweni Municipality realised that they were spending in the region of R2 million per year in Umlazi alone on sewer blockages and unaccounted for water. Since implementing a customer awareness programme in the area, these costs have dropped dramatically.

There are also various projects and initiatives aimed at defining quantitative and qualitative indicators to monitor the impact and efficacy of H&HE interventions.

5.2.5 Accredited Training and Training Materials

In the past three years, a range of SAQA approved and NQF aligned unit standards, qualifications and skills programmes have been produced that will assist with ensuring standardised approaches and skills in sanitation and health practitioners.

There are numerous examples of such qualifications, as well as a growing number of accredited training providers. This is dealt with in more detail in Section 5.3.8.

Materials

The Sanitation Information and Training Pack (SITpack) is illustrated with simple drawings and translated into local languages, and its topics include:

- What is a VIP toilet? (operating principles and how it differs from a simple pit toilet)
- How to look after your toilet
- How to break the cycle of disease
- How to have hygiene toilet habits (hand washing, closing toilet seat to control flies, etc)
- How to keep food and water free from germs
- How to prevent cholera
- How to live hygienically with HIV/AIDS

The advantages of the SITpack approach include:

- Consistent user education across all projects, which aligns with complementary municipal and provincial health programmes
- Good user-education around maintenance tasks and responsibilities, which supports the WSA health section's environmental health objectives
- Cost-effective training of project role-players
- Development of local community health field workers who can support ongoing environmental health activities lead by the EHO after project completion
- It can be adapted for use by sanitation programmes in urban and informal settlements.

Where accredited training opportunities and training providers exist it is an important principle that role-players in the sector should be required to achieve qualifications relevant to their functions. This is generally applicable, but in particular, in relation to standards and standardisation of work provided by ISD practitioners.

5.3 Institutional and financial models

5.3.1 The institutional model in diagrammatic form (see page 32)

A flow diagram titled “Consolidated model for project-based H&HE” that attempts to capture all the key points discussed in this report is presented on the next page. It is intended that this flow diagram be used as a visual reference for the discussion. There is only one diagram, as it is a composite.

Part of the field research conducted for this study was to test different models in a variety of municipal contexts. This variety is discussed in detail in the body of the report. However, there is much more consistency across municipalities than variation, so a single diagram is appropriate.

5.3.2 The consolidated model in narrative form

The model in diagrammatic form on the next page is complex and condenses a large amount of information onto one page. For this reason a narrative description of the model is provided to improve clarity.

Colour coding: The elements of the diagram are colour-coded as follows:

- black – core project-based role-players and roles
- blue – ongoing H&HE and linkages to it
- red – coordinating forums and linkages to such structures
- pink – feedback lines and information flow
- green – the primary health care system (PHC)

The core role-players are listed in boxes down the right side of the diagram. The accompanying text very briefly describes their main roles or functions. Usually what happens in a municipality is that the WSA ensures the provision of water services and plays an important planning, management and monitoring role. However, due to the pressures of meeting the infrastructure backlogs, much of the work this project is focused on is carried out by the MIG PMU, which is why this structure appears next. The next layer of the role-player column is where hands-on work begins. In most cases an ISD consultant (or sometimes an in-house ISD officer) carries out the social negotiations and social access process. Part of this is to work with the local ward committee and/or project steering committee to identify local H&HE facilitators. CDWs are potential role-players here.

From this point the dotted box denotes project or local level. This is where the H&HE programme is delivered. There are some important observations here.

- **Local coordinating forum:** This report advocates for coordinating forums at various levels. The PSC or the ward committee should be considered as the local coordinating forum and should, apart from any other roles it plays, function as a coordinating forum.
- **Local H&HE facilitators:** the process of identifying, skilling and employing local people as H&HE facilitators is an important local economic development opportunity

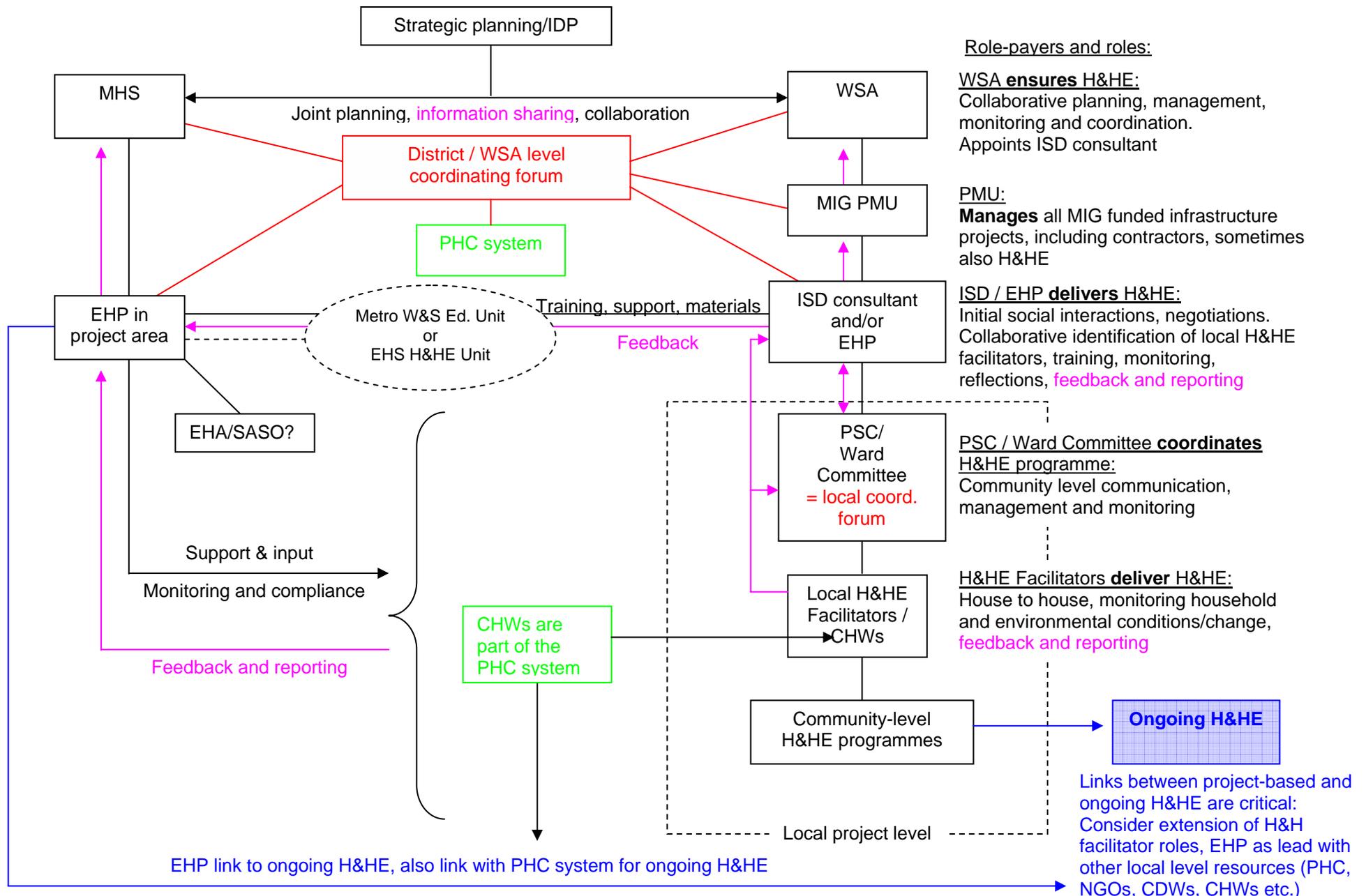
and should not be treated as a matter of convenience for the duration of the project. This report goes into detail about LED and local skills development in Section 5.3.9.

- **H&HE programmes:** The effectiveness of many project-based H&HE programmes is being questioned. Sustained behaviour change regarding hygiene practices and use and maintenance of facilities is very unlikely to be achieved through one or two house visits. The funding mechanism, through MIG, and the fact that this work is often carried out in association with infrastructure contractors is another factor in the debate around effectiveness. These are important issues that require careful consideration. A more coherent and effective approach is required. This issue is dealt with in more detail in Section 5.3.4.

- **Linkages with ongoing H&HE:** In many cases, when a project is completed, all local employment opportunities and H&HE activities end. This report advocates for a different approach where as much continuity is planned into the project. This is dealt with in more detail in Section 5.3.10 of this report, but possibilities include:
 - linking to the primary health care system through using CHWs as H&HE facilitators
 - involving the PHC system as participants in the proposed district or WSA level coordinating forum to provide continuity in the area
 - making greater use of EHPs in project-based H&HE, because they represent a more permanent presence in the area
 - involving the LED section of the municipality in skills development
 - using H&HE facilitators beyond the project for O&M work and continued H&HE monitoring and communications.

(The model in diagrammatic form follows)

Consolidated model for project-based H&HE



Role-payers and roles:

WSA ensures H&HE:
Collaborative planning, management, monitoring and coordination.
Appoints ISD consultant

PMU:
Manages all MIG funded infrastructure projects, including contractors, sometimes also H&HE

ISD / EHP delivers H&HE:
Initial social interactions, negotiations. Collaborative identification of local H&HE facilitators, training, monitoring, reflections, **feedback and reporting**

PSC / Ward Committee coordinates H&HE programme:
Community level communication, management and monitoring

H&HE Facilitators deliver H&HE:
House to house, monitoring household and environmental conditions/change, **feedback and reporting**

- **Feedback mechanisms:** The pink lines and text represent feedback of information from household level to the local coordinating forum as well as via ISD practitioners and / or EHPs to the relevant municipal structures, including the District or WSA level coordinating forum.

Environmental Health Services

The left side of the diagram is where the EHS (which is part of the MHS) is located. This location means that EHPs are not considered as direct agents of project-based H&HE delivery, at least not in the present situation where the evolution of EHPs to DM level is not yet complete. Even after it is complete, the degree of direct involvement by EHPs will be a local decision based on capacity and strategy. This report recommends that EHPs play a support, monitoring and compliance role as indicated in the diagram. However, over time, the report advocates for an increasing role of EHPs in project-based H&HE. This is why the role-player box with the ISD consultant in it also includes the words “and/or EHP”. There are many issues that need to be addressed in this regard and a full treatment of it is provided in Section 5.3.3.

The Primary Health Care system

While the PHC system is not normally considered a role-player in project-based H&HE (not in the current infrastructure-driven approach), they remain an important role-player and provide local level opportunities for continuity. This is why linkages with the PHC system have been built into the diagram both through the use of CHWs (and any other available PHC resources in the area) and through including the PHC system in the district or WSA level coordinating forum. An important contribution of the PHC system at that level is the feeding in of clinic data around water-related diseases and about the incidence and impact of HIV/AIDS. This can then be more meaningfully be fed into water services planning and improved the responses from that sector.

There are three black lines at the top of the diagram that join the WSA, MHS and the strategic planning / IDP structures. These represent a more formal relationship between these structures than is suggested by involvement in the district level coordinating forum. At present these lines do not exist in most municipalities as the MHS has been established fairly recently, and there isn't a strong tradition of cross-departmental collaboration. At present vertical lines from municipal departments upwards into strategic planning do exist, and this lends itself to the 'silo effect'. This report recommends that the horizontal linkages be established and strengthened so that H&HE, which is a multi-sectoral activity, can be carried out more effectively.

There is an oval shape using dotted lines in the diagram. This represents an existing structure, namely the Metro water and sanitation education unit and a potential structure at DM level, involving EHPs in a unit that focuses on H&HE, both project-based *and* ongoing, which is a major advantage of using EHPs. Where the capacity and/or commitment exist, such structures are encouraged.

5.3.3 The role-players

An important consideration in implementing H&HE is who does what. This section explores the 'who' of that question in sequence from high level structures to local or community level.

The Department of Water Affairs and Forestry (DWAF)

Once municipalities were given authority as WSAs and began to take on those functions, the role of DWAF in terms of rural water and sanitation was reduced to that of support, monitoring and regulation. DWAF regional offices still play an important role in providing support for the development of business plans for infrastructure projects, and for approving those business plans for funding. The extent to which the three DWAF functions are carried

out differs from region to region, but where good relationships between DWAF and other role-players in their regions and in districts exist and where there is a commitment to providing support and capacity building, projects often progress well. This extends to H&HE, in particular, materials development and assistance with technical issues.

Another important function of DWAF regions is coordinating the Provincial Sanitation Task Teams (PSTT), which are multi-sectoral groups that meet provincially. The information-sharing and coordination functions of these task teams cannot be underestimated. As part of the National Health and Hygiene Education Strategy (NSTT, 2004), effectively functioning PSTTs should be encouraged in all nine provinces, issues around H&HE need to receive the important status they deserve, and relevant role-players in this field need to be integral to the PSTT.

However, as service delivery is focussed on municipal level, most of this section examines role-players at municipal or district levels.

The IDP / WSDP process

The process of identifying and prioritising a water or sanitation infrastructure project takes place as part of the Integrated Development Planning (IDP) process, in particular, through the Water Services Development Plan (WSDP). The WSDP is a municipal performance management tool that sets out prioritised water and sanitation projects with budgets.

The IDP (and within that the WSDP) is intended as a consultative process, not only in the preparation period leading up to its publication, but continuously. In this way, feedback from projects such as water and sanitation projects plays a role in high-level planning, and can even steer strategic objectives. For these reasons, the importance of feedback loops in H&HE in the water services sector cannot be over-emphasised. Of course, feedback to other levels and role-players is equally important.

In all of this, the broad objectives and vision of the IDP documents are concretised in terms of budgets, known as the Service Delivery, Budgeting and Implementation Plan (SDBIP). Importantly, DWAF guidelines and MIG regulations do not allow projects to be funded unless it can be shown that they are reflected in the IDP. This has significant budget discipline implications.

Water Services Authorities

This project focused specifically on municipalities that are WSAs because it is WSAs that are tasked with ensuring that water services (which include sanitation and also appropriate H&HE) are provided. WSAs do not feature in a fore-grounded way in the implementation of H&HE – theirs is a high-level planning and oversight role, rather than a delivery role. They are critical, however, in ensuring delivery and in maintaining overall quality and control as well as in taking key decisions such as authorising projects (and expenditure) and in some cases, appointing external service providers, particularly for construction projects.

Water Services Providers

The National Strategy for Health and Hygiene Education (NSTT, 2004) outlines the role of WSPs as follows:

A Water Services Provider is contracted by a WSA to perform certain services on behalf of the WSA. These services include either/or:

- 1. The implementation of water and sanitation service projects³¹.*

³¹ This is an incorrect representation– WSPs generally do not undertake water or sanitation infrastructure development.

2. The operation and maintenance of water and sanitation services.

It goes on to show how H&HE fits in:

Water services providers may assume responsibility for conducting ongoing health and hygiene education as part of its (sic) operation, maintenance and customer relations activities³².

It is significant here that the Strategy outlines, firstly an incorrect position regarding the first point, implementation of water and sanitation service projects (i.e. infrastructure development). Generally, WSPs have little to do with this role except in the case of larger WSPs such as Water Boards where the extension of existing infrastructure or the development of new infrastructure is possible. Secondly, the Strategy outlines a role within O&M, which is also not usually associated with infrastructure development, but to the operations of existing infrastructure. The Strategy then outlines what is, in fact, a fairly limited role for WSPs in relation to H&HE: “WSPs may assume responsibility ... as part of their operations, maintenance and customer relations activities. The latter phrase also points quite clearly to ongoing H&HE rather than project-based – clearly, there is no O&M in relation to a new infrastructure project, and although customer relations should commence prior to the roll-out of infrastructure, generally it is associated with communicating with existing customers. Beneficiaries of basic water and sanitation in terms of MIG-funded projects are usually neither paying customers nor captured on a municipal billing system or data-base. Nevertheless, the Strategy proceeds to allocate to WSPs a much more central role in providing H&HE in relation to project-based H&HE. This issue is addressed in this report.

This contradiction between legislated roles and the National Strategy is echoed in the realities encountered during the field-testing of models in the selected municipalities. In no municipalities included in this research did their WSPs undertake any project-based H&HE. Instead, it was the WSA (as distinct from the WSP, even in cases where the two were combined within the same municipality) that took responsibility for project-based H&HE, and it was often delegated as a MIG Project Management Unit (PMU) responsibility. In two cases the PMU delegated this function to an external service provider. The DM retained direct management over those who carried out the H&HE (through the PMU) whereas the LM delegated the entire process of infrastructure development and H&HE to an external contractor, who also managed their own ISD staff. In the other DM, an ISD officer had been appointed within the MIG PMU and it was this officer’s primary responsibility to appoint and manage ISD practitioners to provide project-based H&HE.

It can be seen that as the capacity of the municipality changes from Metro level to LM level, so too does the ability to be directly involved in project-based H&HE vary.

It is clear, therefore, that there is confusion around the role of WSPs in relation to project-based H&HE and thus an urgent need to clarify the situation. In line with WSPs’ legislated roles, the National Strategy should not require WSPs to provide project-based H&HE and should instead allocate this role to a more appropriate provider within the municipality. As things stand at present, the main **provider** of H&HE is the ISD officer or consultant (usually the latter), who is linked either with the MIG PMU or the WSA, while the WSA **ensures** that this service is provided. While this is the status quo, and is effective, this report recommends working towards a greater role for the environmental health services (EHS) at DM level in

³² National Sanitation Task Team (August 2004): National Strategy for Health and Hygiene Education related to Water and Sanitation Services.

H&HE provision during infrastructure projects, with resources such as ISD practitioners still playing a significant role.

It is important not to confuse project-based work with ongoing provision of H&HE, where the WSP, through its customer relations, billing system and responsibility for operations and maintenance (O&M) is well-placed to provide aspects of H&HE to its clients.

The MIG Project Management Unit (PMU)

The existence of Project Consolidate and the MIG PMU's acknowledges the capacity constraints that municipalities face³³.

MIG PMUs were introduced when it became evident that municipalities were not coping with the huge pressures for delivering and managing the infrastructure projects that fell under the MIG Programme. This important remedy comes after the National Health and Hygiene Education Strategy (NSTT, 2004) was finalised. Consequently, PMUs are absent from the Strategy. This gap was identified during field-testing and is considered a significant change that is required to the Strategy. It also suggests a possible reason why WSPs are not such significant role-players in reality as the Strategy implies they should be.

MIG PMUs are tasked specifically with handling MIG funds at municipal level and for managing the MIG Programme. They are required to address the principles of the Extended Public Works Programme (EPWP), which focuses on job creation by means of a labour-intensive approach, identifying marginalised groups (e.g. women and youth) and providing skills training and employment wherever possible. Some PMUs have carried this mandate forward very well, while others tend towards a more technical, managerial approach, partly as a result of the huge pressures for delivery they have to cope with.

Institutional and social development practitioners

The National Health and Hygiene Strategy (NSTT, 2004) makes very little reference to ISD consultants or to ISD officers within WSAs or WSPs. This is seen as a significant gap because the use of ISD practitioners is widespread and is generally accepted as an effective approach. Most role-players support the continued use of ISD practitioners (consultants) because they are an important resource now and for the foreseeable future. (Noting that an increasing role for EHPs is recommended elsewhere in this report).

ISD practitioners are usually appointed by the WSA, the technical section or the MIG PMU. In the case of the LM that was included in the field research for this report, the MIG PMU appointed the infrastructure contractor who also provided an ISD function using its own staff resources. ISD practitioners are generally tasked with making initial contacts with communities where water or sanitation projects (usually the latter) are to be implemented. They usually work with or through the ward committee to set up a project steering committee (PSC). Together the ISD and the ward committee or the PSC identify suitable local residents who are able to act as H&HE facilitators³⁴.

ISD practitioners provide training and materials for the facilitators who then conduct H&HE programmes in the project area. In one case covered during the research, ISD practitioners are responsible only for gaining access to specific communities, for ensuring social acceptability of the project and for the broader social facilitation processes. In this case

³³ Extract from speech by DPLG Deputy Minister N Hanganu at National Free Basic Service Conference, Emperors Palace, 25 July 2005

³⁴ H&HE facilitators are sometimes also referred to as community health facilitators / workers (CHWs). To maintain consistency with the national strategy the term H&HE facilitators will be used in this report.

environmental health practitioners (EHPs), mainly provincial at this stage, are used for implementing the H&HE programme through locally appointed H&HE facilitators. This variation is important because not only does the National Strategy identify the municipal health services (MHS) as the main agent of delivery for H&HE, but as they are already funded (or will be at DM level shortly) they do not have to be paid from project or MIG funds.

In support of this approach, once the devolution of EHPs from LMs and province to DM level has been completed the MHS will have much greater capacity, and in terms of the National Health and Hygiene Strategy, they should take up major responsibility for H&HE in their districts. However, it is clear across all levels of municipalities that EHPs are stretched (and likely to continue so after the devolution process has been completed), have multiple demands on their time and resources and are not, in fact, as well-placed to render this service as might otherwise be expected. So, the validity of the ISD approach still holds, and replacing this external resource with EHPs will take time to implement. Nevertheless, for various reasons described below, this report recommends for an increasing involvement of EHPs in project-based H&HE over time, working in collaboration with ISD practitioners according to local circumstances.

The use of external ISD practitioners means municipalities do not have to create and maintain posts dedicated to ISD work, which allows for flexible deployment of resources. However, given the concerns around standards and effectiveness of ISD practitioners, this model, supported as it is in the research sites, must not become the panacea. While it does create employment opportunities for many ISD practitioners, care must be taken that new ISD practitioners are able to perform adequately. Also important for municipalities is that ISD practitioners are paid out of MIG funds. This is generally on the basis of a certain portion of the allocation per household being reserved for ISD and other non-infrastructure work. As such, costs to external consultants have built-in controls and cannot escalate.

Standards and monitoring: Although many ISD practitioners are (now) experienced and provide a quality service, there is still a concern around ensuring standards and quality. This has implications for training and accreditation, the need to check previous experience of ISD practitioners, setting up adequate monitoring systems and so on. An important set of comments around accredited training for ISD practitioners is made in Section 5.3.8.

With regard to managing ISD practitioners and monitoring the quality of delivery, WSAs in most cases do not have the capacity to monitor and manage ISD practitioners properly. A valuable contribution of the National Strategy would be to assist in drafting standards and setting up a suitable monitoring system. Municipalities then also need to find ways of carrying out this role. The legislative role of municipalities includes facilitating meaningful local economic development (LED) – and that is not just an infrastructure issue – they therefore need ISD skills in house to be effective in this role. Otherwise development is all about contractors and targets and toilets don't get used and people still get cholera and the intended health and LED impacts of basic services go nowhere. In fact we can make it worse and create public health problems. This in-house capacity would then also be available for better monitoring of contracted ISD practitioners who are engaged with implementing H&HE programmes.

Materials: Another aspect of setting standards for ISD practitioners is the development and use of H&HE materials. Good materials exist (for example the SIT Packs – Sanitation Improvement Tool Packs) and little effort is now required to create new ones. Even materials on HIV/AIDS for the water services sector exist, although their development and testing is still in its early stages. The setting of standards for ISD practitioners needs to extend to the materials used and to preventing the unnecessary expenditure of funds on developing new materials when the existing ones are more than adequate. Obviously, this does not prevent the ongoing improvement of H&HE materials. Indeed, periodic reviews at DM and higher

levels should be a matter of procedure. For example, an important role of the Department of Water Affairs and Forestry (DWAF) is to provide support – materials development and review is one of these areas. An important development for the sector will be the use of accredited training providers. While materials themselves are not accredited, they do form part of the accreditation process. This should be supported by DWAF, which also has a regulatory role.

Appendix 7 is an extract from the National Strategy outlining minimum standards for messages, methodologies and materials. This set of standards is an important contribution to ensuring sector-wide consistency of delivery and standards. It will assist in ensuring that the minimalist three visits per household, one before, one during and one after completion and no other form of communication is prevented.

Environmental Health Services

Environmental Health Services are in a state of flux at present, based on the fact that most EHPs are being devolved upwards from LMs to DMs (in most cases this process has been completed) and from provincial level to DMs, which has generally not yet taken place. As described in more detail later under funding arrangements, this process has been made complicated by the fact that at present DMs cannot accept EHPs from province because there is no funding to accompany them at present, and conditions of service issues have not yet been resolved. However, for the bulk of this report it is assumed that this process will be resolved fairly soon (a date of 1 July 2007 has been given). EHPs have been identified in the National Strategy as the lead group (within the municipal health services – MHS) in providing project-based H&HE.

However, as was made clear in the earlier discussion on ISD practitioners, EHPs are not going to be freely available for H&HE work, which is why the ISD approach has been widely supported, at least for the present circumstances. The role for EHPs at DM level that was widely supported by research respondents included:

- Support (for all role-players at project and mid-level, ISD practitioners in particular)
- Capacity building
- Monitoring and feedback
- Compliance (this remains an important function of EHPs)

In order to fulfil this role, good coordination between different departments and commitment to working collaboratively and within coordinating forums are essential, hence the general emphasis in this report on coordinating forums.

As municipal EHS gain capacity and become better established, they should take on an increasing role in project-based H&HE. The flow diagram presented in Sections 5.3.1 and 5.3.2 includes this recommendation. This is important because it overcomes some of the restrictions imposed through the MIG funding mechanism and the weaknesses associated with the short-term nature of a project-based approach.

In addition to the above, EHPs reported that the auxiliary level of personnel, known variously as environmental health assistants (EHAs) or special auxiliary services officers (SASOs) are a valuable resource. However, as they are provincial personnel, and as it is not clear whether they will also be devolved to DM level, their status is unclear. Certainly, EHPs would value it if EHAs/SASOs could join them in DMs as they will be most useful in conducting project-based H&HE. This would significantly enhance EHPs' ability to fulfil the role laid out for them in the national strategy, and it would to some extent reduce municipalities' dependence on external resources such as ISD practitioners.

Provincial EHPs have institutional links with the PHC system and CHWs. After devolution to DM level, these links will be lost, so future collaborative work between EHPs and the PHC system will require higher level agreement and perhaps the signing of MoUs.

Ward committees

Most water and sanitation infrastructure development projects in backlog areas set up project steering committees (PSC). A PSC is usually a temporary structure, existing for the duration of the project. Its function is to oversee local-level activities, to monitor and facilitate social dynamics, to assist in identifying local people who can be employed for the project (including H&HE facilitators). The PSC can be set up through the activities of the ISD, but it is more common, and advisable, to work through the ward committee. In some cases the ward committee itself (or a sub-committee) becomes the PSC, with certain additional members such as the infrastructure contractor, ISD, EHPs and so on. The recommendations from the field are strongly in favour of working with ward committees, because they provide political 'buy-in' and pave the way for smooth implementation of the project. They are often able to assist in dealing with problems, identifying local resource people and the like. Working through the ward committee also allows for a significant contribution in terms of skills development in committee work, monitoring and feedback and development processes, which all lead to better sustainability of the water and sanitation facilities. Importantly, the ward committee is a permanent structure that provides seamless linkages beyond the project itself, and specifically into the phase of ongoing H&HE.

Project-level H&HE workers

A range of people occupy this local level in H&HE. For example, community health workers (CHWs), community development workers (CDWs), health promotion practitioners (HPPs), environmental health assistants (EHAs), special auxiliary services officers (SASOs) and H&HE facilitators. The majority of these are seldom used for project-based H&HE and better placed to carry out ongoing H&HE, for example within the PHC system. It is generally only local people identified for the project itself and employed through the ISD who are used for project-based H&HE, and these are usually called H&HE facilitators. This is the term that is standardised in the National Strategy. In some cases they are called health promoters, but as this is the same term as the salaried HPPs of the Department of Health, H&HE facilitators is preferred term. In addition to H&HE facilitators, EHAs / SASOs, are also available at project level. The lack of clarity around their future has already been described. Nevertheless, by far the dominant model is for locally identified H&HE facilitators to provide a project-based H&HE service, under ISD practitioners.

Community Development Workers (CDWs) are a new (2004) echelon of multi-skilled civil servants deployed at community level, particularly poorer communities. Their role is to assist people to access services. The programme is driven at the national level by the Department of Public Service and Administration and is being piloted and implemented in the Provinces of KwaZulu-Natal, Western Cape, Gauteng, Eastern Cape, North West and Mpumalanga (which includes all four of the test sites included in this research). CDWs undergo training to enable them to work at community and household level to assist people by helping them to access services such as health, welfare, housing, agriculture, economic activity, education and training, and employment opportunities.

Although several thousand CDWs have been trained and deployed, they did not feature significantly in the research. It is not clear why this should be so, but it is possible that as the Water Services sector is well-organised and has capacity, that they do not engage themselves much in that sector. Nevertheless, they are noted as a potential valuable resource. Importantly, as they are deployed at community-level (although not necessarily community-based), they provide important continuity for the development processes within and around specific communities. This is an important consideration for providing for effective H&HE beyond the project phase.

5.3.4 Funding arrangements

For project-based H&HE the funding arrangements are relatively straightforward. Based on the list of role-players in Section 5.3.3, the majority are funded appropriately at present from sources such as national or local government revenues. There are three sets of role-players that require more specific attention.

Environmental health practitioners

At time of writing the devolution of EHPs from province to DM has been delayed. The main reason is because DMs are unwilling to take on an 'unfunded mandate'. There are no municipal funds to pay for the additional staff salaries and associated costs. Moreover, conditions of service at DM level have not yet been finalised. A date of 1 July 2007 has been set for the process to be finalised, and time will tell whether this date will be met. General consensus is that DMs will be subsidised by increases in their equitable share³⁵ from the Department of Health (which would make it a conditional grant) to cover the new EHP costs. It is likely that some additional funds will be required for this purpose from existing municipal revenues. Once the devolution process and its associated funding challenges have been resolved, DMs will have a significant number of new EHPs, but in most cases, these EHPs were already operating within that district as provincial employees, so functionally, the changes are not likely to have as large an impact as might be anticipated, and the human resource needs of H&HE are not going to be resolved overnight in this way.

Community health workers

CHWs are community-based, usually linked in some way to a clinic, not reporting to the clinic on a daily basis, but rather to an NGO or to the health portfolio of a local ward committee. In the past, CHWs were volunteers. With the advent of the new district-based primary health care system (PHC) it was anticipated that the Department of Health would formalise their role and employment status and thereby introduce a large new cadre of people at local community level. This did not happen directly; instead the DoH now funds NGOs to manage CHWs and to pay them what amounts to a stipend. The current situation is thus either the subsidised NGO system, or that CHWs remain as unfunded volunteers. It is not expected that this will change in any significant way.

Importantly for H&HE in water and sanitation, CHWs are not as widely available as might be hoped, and as is implied by the National Strategy because they have been deployed very heavily in home-based care work (HBC) to assist people living with AIDS. There is no doubt that this is a valuable role and should continue. However, they are not freely available as H&HE facilitators in the water and sanitation sector. This represents an opportunity that will be developed later in Section 5.3.8. That is, instead of attempting to compete for these resources, in line with keeping the Strategy simple and to work with existing resources and relationships, the proposal is to extend the training and work of CHWs simply to include additional information about the links between HIV and AIDS and the water and sanitation sector. Let them continue with their good work, but enhance it with focussed new training, material and messages.

³⁵ The 'Equitable Share' has a number of elements: The LGES is a funding flow from the national revenue fund (usually non-conditional), from national departmental funds (usually conditional) and from provincial sources (the PES), usually conditional. These various equitable share contributions (equitable because they are based on per capita calculations) are made in terms of the annual Division of Revenue Act (DORA), first introduced in 1998 (Act No. 8 of 1998), which specifies and governs the LGES and the PES allocations, as well as the conditional transfers from national departments to municipalities and from national departments to provinces.

ISD practitioners

Most ISD practitioners are paid out of MIG funds, although some are also paid from municipal general funds in order to do higher-level social negotiations and not any house-to-house work either directly or through H&HE facilitators. There has been a call for ISD practitioners to be allowed to operate more broadly as development consultants using general municipal funds. This point arose because payment on a per household basis can restrict the scope of work that ISD practitioners can perform. However, even where such generalised (non-household) work is carried out at present, MIG funds are being used. Should a municipality wish to extend the scope of ISD practitioners it is within their rights to do so and this should be encouraged where the need exists, where the ISD practitioners are able to perform the tasks, and where budgets allow.

The bigger question is whether the allocation from the MIG fund to cover ISD work is sufficient? Typically, a ratio of between 5 and 10 H&HE facilitators will be appointed per 1000 households. The standard way of working is for a H&HE facilitator to visit a certain number of households per day, generally between 6 and 10 depending on conditions. These numbers are all worked back to budgets, which are based on the allocation from the MIG fund for 'soft issues'. Usually a total of R3000 is allocated per household in a rural sanitation project, with R300 for management costs, R300 for H&HE and other ISD work (that money being shared between ISD practitioners and H&HE facilitators), leaving R2,400 for direct infrastructure costs. This formula is not fixed and can be varied according to specific circumstances.

A H&HE programme typically consists of a series of 5 household visits (in some areas only 3 or even just 1) supported by some community meetings as well as the broader sanitation promotion work that is usually carried out at the commencement of a project. This work is covered by the existing funding arrangements, but the key question is whether this is acceptable from the perspective of an effective H&HE programme? Consensus in the field is that 3 to 5 visits is effective for the immediate goal of creating awareness around hygiene and sustainability, but that more is actually required for real behaviour change in hygiene practices and in sustainability of infrastructure. This has implications for what methods are used and how effective H&HE is – it is imperative that H&HE is not sidelined and made into merely a mass communications campaign or a once-off health day at the local primary school. The minimum standards set in Appendix 7 are an important step in the right direction. Even these minimum standards go slightly beyond the “3 or 5 household visits” described above, so at the least, existing allocations from MIG funds cannot be reduced, and should probably be increased. A review of the MIG policy and of ISD / H&HE funding in general is clearly in order.

Health Promoters

Health promoters, or more correctly, health promotion practitioners (HPPs) are employed within the provincial PHC system. They are sometimes based at clinics and sometimes at the district or local offices of the Department of Health, within the Health Promotion section. They perform a valuable ongoing H&HE function and are paid from provincial Department of Health funds. They are not currently involved in project-based H&HE work and are identified in the National Strategy mainly in terms of their potential to play a role in ongoing H&HE. Nevertheless, they exist, are located and operate in the same sorts of areas where water and sanitation infrastructure backlogs are being experienced, and as they are already funded, represent a resource that can be used for project-based work. This will have to be done by means of agreements at local or district level.

5.3.5 Coordination and collaboration

The research conducted for this report shows very clearly that coordination and collaboration across departmental or sectional boundaries are critically important as well as being a complicating factor. Working within one's organisational boundaries in the context of

pressure for delivery is challenging as it is. Finding time for additional meetings and making the effort to work collaboratively is thus sometimes seen as an 'optional extra'. Consequently, valuable opportunities for effective H&HE work are lost. Nevertheless, the need to work collaboratively is not disputed. Consequently, mechanisms need to be found that are not too complex and time-consuming, but are effective and are experienced positively by role-players.

At high levels, the various inter-departmental committees play an important role, but the main national structure is the National Sanitation Task Team, with its sub-committee, the National Health and Hygiene Education Task Team, which has been tasked with developing and rolling out the national health and hygiene education strategy (related to water and sanitation). Beneath the NSTT are the various PSTTs that also, where they are functioning effectively, play an important cross-sectoral and inter-governmental coordination function within provinces. The PSTTs include DWAF regions, provincial departments such as education, health and housing, representatives of municipalities and several other role-players.

Given that the focus of service delivery is at local government level and that this function is fairly recently devolved to that level, the areas of concern for coordination and collaboration are within districts, at programme level and project level. Consistently, the need for such coordination and collaboration has been emphasised because of the multi-sectoral nature of H&HE in water and sanitation.

At district level, an equivalent of the PSTT (perhaps a DSTT?) plays an important role. In this report the term for this structure has been standardised as a "coordinating forum". For example, in the Umzinyathi DM (Dundee) it is reported that there are monthly coordinating meetings of the PMU that involve the following:

- PMU Manager
- Technical (outsourced)
- ISD (outsourced)
- EHPs (Provincial)
- PHC Manager
- CHWs

This is based on the use of PHC staff extensively, hence the presence in the committee of provincial PHC staff, including CHWs. This structure was presented as a model of good collaborative project management. Its main functions are collaborative progress monitoring and feeding back information. It doesn't attempt to usurp accountability and line functions, and as such leaves the relationships clear and simple. The working relationships between the PMU, the infrastructure contractor, the ISD and the PHC system are the subject of prior agreement and clear allocation of tasks and responsibilities. Where there is a will to craft such negotiated relationships they work well, as this example suggests, and they are sustained through regular feedback meetings as described.

The pattern that emerges from the research is that where:

- capacity challenges require the sharing of resources
- and where there is a commitment to collaboration,

... then such collaborative approaches will be effective. In cases where sufficient capacity exists for sections to work independently of others, then collaboration is less effective, particularly where role-players seem to be less committed to collaboration.

Clearly, the ideal is to have a team of people planning the roll-out with clear agreement on procedures and a commitment to a forum-style feedback process. This ideal requires strong

leadership, and it is recommended that specific interventions are made with key leaders to promote collaboration.

Specific examples from more than one municipality of the impact of low levels of collaborative planning include cases where planning processes did not involve all affected parties, for example, environmental health services, yet EHS were expected to deal with environmental health problems later that could have been avoided during planning, or had EHPs been included in the project implementation phase. This emphasises the importance of joint planning. It is expected that the completion of the devolution of EHPs from province to DMs will help to resolve some of these issues. Again a specific intervention with key managers needs to emphasise the importance of joint planning and working collaboratively. Promoting awareness of the interrelationships between infrastructure, health, hygiene practices and sustainability will also be required to change mindsets.

The above can be summarised as “Joint planning, with operational collaboration”. This slogan should become a guiding principle.

The key recommendation with regard to operational collaboration is that a coordinating forum should be required for all projects. This should be established at district or programme level.

At local level the ward committee or PSC is an appropriate coordinating forum provided that it is run in a collaborative spirit. Specific interventions are required to promote this collaboration.

Another critically important issue is the need to ensure that HIV/AIDS is mainstreamed into H&HE programmes. This requires not only institutional links between health and infrastructure/MIG/WSA divisions in the municipality and the relevant health department, but also involvement of the relevant role-players in coordinating forums as described above – joint planning with operational collaboration.

5.3.6 Monitoring

Monitoring has two aspects. One is a management function and the other is part of feedback and evaluation. The management function will not be dealt with here as it is part of organisational culture and is assumed. This assumption is subject to the overarching principle established in this report of keeping the Strategy simple. While inter-departmental or multi-sectoral collaboration is strongly encouraged, line management needs to be kept simple and should not cross boundaries. For example, PHC CHWs should not be accountable in a strict managerial sense to municipal EHPs, even though there is close agreement for them to collaborate operationally.

Monitoring in the sense of feedback and evaluation, on the other hand, is fundamental to effective H&HE work.

The ‘Indicators’ report³⁶ (see Appendix 1) which forms part of this study suggests that for the most part, the efficacy of H&HE is not being monitored, measured or documented, except at project level. This in turn impacts on the importance ascribed to H&HE, whether it is prioritised and how it is resourced. The lack of monitoring and documentation also means that lessons are not learnt and shared, similar mistakes are repeated (at cost), good practice is not disseminated, and corrective action is not taken.

³⁶ Indicators of integrated health and hygiene promotion, Mvula Trust, 2006

There are a range of reasons for this, including capacity and financial constraints, lack of institutional clarity, lack of performance measures and indicators and limited access to health and hygiene baseline information.

The Indicators report attempts to share good practice monitoring indicators and systems, to analyse the constraints to effective monitoring, and to make recommendations for addressing these constraints. Information feedback should take place from H&HE facilitators to the ward committee/PSC, from EHPs and ISD practitioners to District/Programme coordinating forums as well as by formal reports to DHS/MHS Managers, PMU Managers, Technical Managers, Water Services Managers and so on, as relevant. Importantly, this feedback will also be collected by the Strategic Planning section where it will be incorporated into the IDP process.

The National Strategy differentiates health and hygiene education monitoring activities and key performance indicators at various levels:

Key Issues	Custodians	Data collectors
National health-related targets	National and provincial National DWAF and Department of Health	WSAs, Municipal Health Services, provincial Departments of Health and Education and DWAF
Delivery of H&HE	National Department of Health	Municipal Health services and provincial DoH
Impact of H&HE on community health	DWAF and provincial Departments of Health	DWAF and District Health Services and Information Systems
Water and sanitation programme project-based monitoring	Water Services Authorities	Water Services Providers
H&HE programme monitoring	Municipal and District Health Services	Municipal Health Services and Water Services Providers
Impact of H&HE on knowledge, attitudes and practices	Municipal and District Health Services and Water Services Authorities	Community Health Workers, Environmental Health Practitioners, Health Clubs

This gives a sense of how information that is fed back through the system is critical in informing practice and for future planning. Operationally, feedback is, as already mentioned, a key function of coordinating forums.

An important issue around monitoring is what to monitor and what indicators allow for appropriate judgements to be made around project progress and impact. The following table, extracted from the National Strategy, is a summary of proposed key performance indicators for H&HE:

Outcome	Key Performance Indicators
<i>Delivery of H&HE</i>	Number of households reached as part of project-based H&HE programmes
	Number of households reached as part of ongoing H&HE programmes
	Number of workshops completed as part of ongoing H&HE initiatives
	Number of schools where staff are educated in H&HE
	Number of clinics where staff conduct H&HE
	Provinces where health and hygiene issues are included in the school curriculum
<i>Impact of H&HE programmes on community health</i>	Funding specifically for H&HE programmes
	% of population using sanitation facilities that are safe and hygienic
	Number of deaths due to sanitation-related diseases
	Effectiveness of H&HE programmes measured in post project assessment
	Clinic records of % of children under 36 months with diarrhoea
	% of children caregivers and food preparers with appropriate hand washing behaviour
	Number and severity of sanitation-related contamination of groundwater and surface water
<i>H&HE programme efficiency</i>	Budget = % expenditure
	H&HE activities = number of activities vs planned activities
	Targets = progress against planned targets
<i>Monitoring impact of H&HE programmes on knowledge, attitudes and practices</i>	Knowledge = Interview results and participatory exercises findings
	Observation of sanitary practices
	Observation of levels of hygiene practices
	Observation of the availability of items such as hand washing facilities, soap, toilet paper, etc
	Observation of the availability of clean water

Outcome	Key Performance Indicators
	Participatory exercises findings
	Interview findings

These indicators are not difficult to identify and record even by relatively unskilled fieldworkers, yet they are fundamental to accurate assessment of impact and progress.

The Indicators report contains much more detailed information to guide the process of monitoring water services projects.

An important issue that this raises is the need for training in project monitoring. This is developed in more detail in Section 5.3.6.

5.3.7 HIV and AIDS and H&HE within the water services sector

In relation to HIV/AIDS, which needs specific attention in this context, a previous report in this study (see Appendix 1) summarises the links between HIV/AIDS and effective H&HE as well as access to water and sanitation services as follows:

- Effective and hygienic use of adequate and accessible water and sanitation reduces exposure to pathogens and can prolong the progression from HIV to AIDS, and also reduce both infectiousness and susceptibility to infection.
- Reliable water and safe accessible sanitation is crucial for bathing, washing, cleaning, disinfecting, comfort and dignity associated with home-based care
- Access to water increases food security to ensure sufficient nutrition for people on AIDS treatment and for softening food.

Clearly, supporting effective health and hygiene practices can, quite literally, extend people's lives.

However, reviews of local government response reveal many problem areas³⁷, such as:

- Many IDPs don't reflect real municipal challenges in responding to HIV/AIDS and show little understanding of local contexts or HIV/AIDS resources
- Participants in the IDP process often do not include organisations concerned with HIV/AIDS
- Lack of available data on HIV prevalence and lack of modelling expertise prevent planners in departments other than health and social development from including HIV/AIDS in their plans
- The need for IDPs to focus on tangible results and services for performance management means that development indicators and processes are overlooked.

Municipal planning and implementation should ensure not only that adequate access to water and sanitation services is provided, but that effective water and sanitation-related H&HE is provided for those who are infected and affected by HIV/AIDS and for caregivers. This calls for alignment and coordination between municipal and provincial programmes, and between water services, environmental health, primary health, and HIV/AIDS-related initiatives in all spheres of government

Mainstreaming of HIV/AIDS is an important requirement. This means that all of us should ask and answer questions such as:

³⁷ Integrated development planning in a context of HIV/AIDS – municipal planning perspectives and responses, Development Works, 2004.

- How do I factor in HIV/AIDS into my core business?
- Is there a way that I can plan or do my work that reduces the spread of HIV/AIDS?
- Is there a way that I can plan or do my work that makes the lives of those living with AIDS easier?

The above three questions are short and simple, and yet if each department or section within government, and in this context, especially those involved in the delivery of water services (including H&HE), the impact could be huge. It is thus recommended that just such an intervention be implemented, that all sections or departments involved in water services, infrastructure planning and delivery and H&HE go through some kind of process, perhaps a group workshop, where these questions are seriously addressed.

In relation specifically to H&HE, two recommendations which are extremely simple, yet potentially very effective, would be to include new training modules, as outlined earlier in the existing programmes offered by people in the water service sector on the one hand, and in the PHC system on the other. These recommendations are discussed in the next section covering training needs.

5.3.8 Training needs

HIV/AIDS

The two recommendations introduced above are developed further here. It is recommended that within the armoury of water and sanitation-related materials used by H&HE facilitators, ISD practitioners and EHPs a module covering the linkages between water and sanitation, health and hygiene and HIV and AIDS be developed. This will require very little in the way of extra effort, or cross-boundary planning or coordination, and, being so simple, has the potential to be successful and sustainable. In support of this, specific training on these topics should also be provided for the relevant role-players.

Within the PHC system, and specifically, those involved with HIV/AIDS work, such as CHWs, home-based care workers, NGOs, CBOs and so on, a similar and equally simple but potentially effective intervention is recommended. An additional component covering water and sanitation issues in relation to maintaining health should be included with any existing training materials used for HIV/AIDS work. Training for practitioners should also be provided.

The above two interventions will require some high-level planning and agreement, and a process of developing the relevant modules (they don't have to be complex or lengthy, in fact they shouldn't) needs to be agreed. Appropriate methods (such as participatory methods, small group methods suitable for use, for example, with support groups) need to be adopted.

Monitoring

The training need identified in relation to monitoring, above, needs to be included here. The importance of effective monitoring raises the need for suitable training, particularly for project-based personnel such as EHPs, ISD practitioners and H&HE facilitators. Some form of this training should also be provided for ward committees/PSCs so that they gain new skills that are critical in development work and project management, but also allows them to play a more effective role in the water or sanitation project currently underway in their area. The DWAF regional offices could play a lead role in this regard. This training must be included in plans and budgets of the relevant departments or sections otherwise it is unlikely to happen.

Project Steering Committees

ISD practitioners already provide training for PSCs, and where this is not happening, it needs to be addressed. Ward committees and PSCs are at the forefront of development processes

in this country, so the better they understand development issues and financial and project management, the more effective their contributions will be. ISD practitioners are well-placed to provide this training, but they may not have all the skills themselves. The recommendation is that this be a task of the municipal LED section, or it should be provided for from the 'soft issues' component of the MIG fund.

The section describing the role and functions of ISD practitioners (Section 5.3.3) referred to the fact that while many ISD practitioners are now experienced and skilled, there is a need to ensure that there is a basic standard for all ISD practitioners. For this reason, it is recommended that introductory training should be provided for aspirant ISD practitioners and ongoing training should be provided for this already in the field. This training does not have to be onerous or very formal, and can be provided by role-players already in the field, for example EHPs, DWAF and other ISD practitioners. The training should enable ISD practitioners to function effectively in their roles as social facilitators, monitors, mentors and trainers of H&HE facilitators, and should have all the main health and hygiene content included. Training in appropriate methodology, for example, PHAST, should also be provided.

This training is not intended to have an exclusionary effect, but it should ensure that minimum standards are met.

EHPs

The process by which provincial EHPs are being devolved to DM level means that for many, their roles will change to some extent. Also, if they are involved more and more in water and sanitation-related H&HE, they will need to be oriented to these new requirements. For this reason an orientation process is required to assist EHPs to make the changes. This training could be provided from within the MHS, but the national DoH is ideally placed to provide the lead. Although the role of EHPs is less direct involvement in H&HE and more of a support and monitoring one, it is important that they understand development processes and participatory methodologies in particular. For this reason it is recommended that EHPs receive training in the PHAST methodology.

Accredited training, standards and professional registration

An important issue that arises around training is the importance of ensuring standards. For this reason attention in the sector is being given to using the recognised education and training structures for accreditation and quality assurance. The South African Qualifications Authority (SAQA) is responsible for the development of qualifications. The national qualifications Framework (NQF) provides a framework by which different qualifications can be pegged at certain levels. The Sector Education and Training Authorities (SETAs) are responsible for promoting and quality assuring training provision in the various economic sectors in the country. Of relevance here is the erstwhile Local Government and Water Seta (LGWSETA), now the LGSETA, which assisted in putting together a range of qualifications in the Water Services sector. Some of the training that was with the LGWSETA is now handled by the Energy SETA (ESETA). There are other qualifications dealing with community development, community facilitation and related aspects that are also relevant for role-players in this sector.

The main point being made is that, where possible, role-players should pursue accredited training in order to ensure standards in the sector. In particular, ISD practitioners should be required to hold accredited qualifications that enable them to operate effectively in the Water Service sector. Examples of qualifications (and within these, skills programmes) that together provide a career path, are:

NQF Level2: (23473) National Certificate: Community Water, Health and Sanitation Promotion

NQF Level 3: (49128) National Certificate: Community Health Work

NQF Level 4: (23708) National Certificate: Community Water, Sanitation and Health Facilitation

NQF Level 5: (48908) National Certificate: Sanitation Project Coordination

Another initiative in the sector is for ISD practitioners to form a professional body which could take care of issues around accreditation. Clearly, these steps will take time to initiative, and membership or holding of accredited qualifications cannot be required immediately. Nevertheless, it is recommended that municipalities begin to require adherence to these and other standards when publishing tenders.

Influencing training curricula

An associated initiative in the sector is to influence training curricula of its many role-players. Examples of where this could happen are:

- CDWs – include aspects of water and sanitation and related H&HE, as well as linkages with HIV/AIDS. Should be able to work as ISD practitioners
- CHWs – include aspects of water and sanitation and related H&HE, as well as linkages with HIV/AIDS.
- ISD practitioners – discussed above
- EHPs – university training to include water and sanitation *as health interventions*, related H&HE requirements and the linkages with HIV/AIDS.
- Civil engineering – include water and sanitation *as health interventions*, linkages between design, location and health, including HIV/AIDS.

5.3.9 Sustainability and local economic development (LED)

Section 153 of the South African Constitution (1996) states that:

A municipality must structure and manage its administration, budgeting and planning processes to give priority to the basic needs of the community, and to promote the social and economic development of the community.

Further, the Department of Provincial and Local Government (dplg) in its *Policy Guidelines for Implementing LED in South Africa* (dplg, 2005) states that:

LED support offices must be set up in all provincial governments, district municipalities and metros, staffed by qualified personnel. This should be expanded where possible to local municipalities, where in any case councillors and officials should be trained in LED-related issues. These offices and the officials concerned should report directly to the municipal managers, and should carry out their duties in a close working relationship with the local stakeholder groups, partnerships and fora, whose establishment and servicing is one of their key tasks.

It is important to note that it is not the responsibility of local government to create jobs nor to run LED projects. However, the national guidelines for LED make it clear that they do have a key role in creating a conducive environment for LED. A major mechanism for this is through the provision of infrastructure and quality services. The construction of good infrastructure needs labour and skilled resources. Through proper planning not only can short-term jobs be created, but more permanent local enterprises can be developed, along with the required skills training.

It is clear, therefore, that municipalities, especially Metros and DMs have a clear responsibility to promote LED within project-based water and sanitation projects (and beyond the projects). As this report focuses on H&HE, it will not consider LED opportunities through

employment on infrastructure projects. However, significant opportunities exist for promoting LED within H&HE. This can be done, for example, by:

- Employing local people as H&HE facilitators
- Providing training and skills development in health and hygiene issues, appropriate methodologies and good communication, as well as in a basic understanding of development practices
- Providing an enabling context for H&HE facilitators and O&M support agents to set up small enterprises after project handover.

Of particular interest in this regard is eThekweni Metro's pilot project referred to as a 'caretaker model'. In this project, H&HE facilitators are provided with training to set up small enterprises that involve a 'one-stop' shop and a service for maintaining toilets. This assists in ensuring that spare items for toilets are locally available and that there are local skills for sorting out maintenance problems. The other possibility is for people to be employed through the municipality beyond the project phase to monitor and identify problems and to provide ongoing health H&HE.

Skills training during the project phase is not restricted to H&HE facilitators. Other role-players at that level include ward committees and/or project steering committees. These should receive general committee training anyway to enable them to carry out their tasks more effectively, but in terms of LED, some of the committee training is likely to lead to greater employability.

An important consideration is the precision of accredited training through SETA-accredited training providers. This route provides skills that are portable because trainees have records with the SETA that can be checked by potential employers, and they have accredited certificates to present to potential employers. Moreover, the training provided was developed with useful employability on such projects in mind. This approach opens up career paths in the sanitation sector or development facilitation. Specific qualifications or unit standards that are relevant to this discussion include:

Unit Standards:

NQF Level 2: (US 8494) Demonstrate an understanding of HIV/AIDS and its implications

NQF Level 3: (US 14034) Demonstrate knowledge of community sanitation

NQF Level 4: (US 115894) Promote health and hygiene improvement in a project-level sanitation project

NQF Level 5: (US 115939) Undertake and coordinate sanitation-related health and hygiene promotion activities at sanitation project level

Qualifications:

NQF Level 2: (23473) National Certificate: Community Water, Health and Sanitation Promotion

NQF Level 3: (49128) National Certificate: Community Health Work

NQF Level 4: (23708) National Certificate: Community Water, Sanitation and Health Facilitation

NQF Level 5: (48908) National Certificate: Sanitation Project Coordination

NQF Level 5: (22065) Certificate: Community Health Facilitator Training

5.3.10 Linkages beyond project-based health and hygiene education

While this report focuses on project-based H&HE, it is critical that this is not seen in isolation of the broader context. Too often, water and sanitation projects are construction-driven, have a narrow focus and leave little behind except the new infrastructure. It is necessary to broaden the perspective to one of social or community development, within which a water or

sanitation project plays only a part. In that context, H&HE must be seen not as awareness raising, but of an educational process, and provision must be made for continuing the process beyond the project stage.

For these reasons, this report has advocated for the increasing use of EHPs at project stage, as they do not move on after the project, and thereby provide continuity. The same is true for PHC personnel, mainly CHWs, as well as CDWs, who are also mainly community-based and are responsible for social development generally.

In the flow diagram presented and described in Sections 5.3.1 and 5.3.2 care is taken to link project-based H&HE with ongoing H&HE (the blue lines and text). The provisions made in Section 5.3.8 for ongoing skills development and employment of local H&HE facilitators is directly relevant here.

Another important linkage that goes beyond project-based H&HE is with schools. Wherever a community water and sanitation project is being implemented, there are surely schools nearby. The DWAF National Strategy for H&HE in school sanitation describes options for such linkages. In addition to ongoing curriculum-related H&HE in schools, construction of infrastructure facilities is a valuable point of interest for learners, and specific programmes around this can have a significant impact. User education is a critical element of this. It is recommended that where school water and sanitation projects are implemented in schools where learners are attending the school, that various external providers are tasked with H&HE as suggested in the following table, which describes a generic programme for a school sanitation infrastructure project. (See following page). The third and fourth column dealing with institutional arrangements and curriculum-related H&HE are relevant here as they identify the various role-players who might be involved in school-based H&HE in relation to a sanitation infrastructure project. Planning for such projects would require coordination between the Department of Education Physical Planners and appropriate local structures, possibly the PSTT.

In all of these cases, in order to maximise the effectiveness of these link ages, joint planning with collaborative operations is required. Importantly, wherever water and sanitation projects are planned, the relevant role-players in other sectors (mainly PHC and Education) should be involved at the planning stage.

A GENERIC SCHOOL-BASED APPROACH³⁸

Once the school has been identified as a project school, the following will take place within the school. The numbering indicates the sequence in which various events take place.

Note: Where identical numbers are used, these events take place at the same time.

Construction	SGB	Institutional	Curriculum
1. Construction contractor appointed	2.SGB informed of who contractors are and terms of reference	1. ISD manager appointed	
	2. SGB training (roles, responsibilities and accountability issues)	<i>ISD contractor undertakes directly, or facilitates others e.g. EHS to undertake the following:</i>	
		3. Initial awareness and information for whole school	
5. School community (SGB, School san. committee, educators) involved in making decisions about choice of technology – participatory approach)		4. Establishment of School Sanitation Committee (school problem analysis, solutions identification, management and cleaning systems devised)	
7. Construction commences	8. SGB quality monitoring	6. Information training for principal, school management team, teachers and SGB	
	11. SGB signs off progress reports	9. Teacher training 1 (Construction phase education)	10. Construction phase education programme for learners
13. Construction ends	14. SGB signs off completion certificate	12. Teacher training 2 (National Curriculum Statements)	
		15. Handover ceremony	
		16. Teacher training 3 (cleaning and maintenance)	
		17. Cleaning and maintenance systems continue	18. Curriculum-related health education continues / commences

³⁸ Towards a National School Sanitation Strategy: A discussion document prepared for a national workshop, The Mvula Trust, November 2002.

6. Recommendations

6.1 Sector recommendations

HIV/AIDS and linkages with Water and Sanitation

1. Municipal planning must ensure that effective HIV/AIDS-related H&HE is integral to all water and sanitation projects.
2. H&HE around water and sanitation issues and the linkages with HIV/AIDS needs to be included in the work and training of people involved in HIV/AIDS work.
3. H&HE around HIV/AIDS and the linkages between HIV/AIDS and water and sanitation issues needs to be included in the work and training of people involved in the water services sector.
4. Mainstreaming of HIV/AIDS is an important priority. Recommendations around engaging with three key questions are made in Section 5.3.7. The Department of Provincial and Local Government has published³⁹ a set of ten KPAs that guide municipalities in mainstreaming HIV/AIDS.

Acceptability of National Health and Hygiene Education Strategy

5. The national health and hygiene education strategy related to water and sanitation is sound and acceptable and should be adopted with minor reservations. Lessons learned from this project should be used to refine and re-examine certain key points.
6. The strategy needs to be updated in keeping with the latest developments in MIG and to ensure HIV/AIDS mainstreaming.

Principle of keeping it simple

7. Implementation of the National Strategy should strive to avoid complexity and to work with existing resources and relationships and enhance and strengthen existing arrangements rather than to create new ones.

Status of H&HE

8. The status of H&HE in the water and sanitation sector needs to be improved and specific advocacy around this is required. It is important to highlight that H&HE is required by national legislation and policy and demands greater attention.
9. DWAF regional offices play a valuable support role, and relationships with role-players in all DWAF regions should be strengthened in order to strengthen this support service.
10. DWAF Regional Offices also play a key regulatory role, for example, in ensuring that MIG Business Plans address ISD and H&HE, that national sanitation policy guidelines

³⁹ Dplg (2006) *Draft Handbook for Facilitating Development and Governance Responses to HIV and AIDS*.

are adhered to, and so on. DWAF Regional Offices also play an important coordinating function. This regulatory role needs to be given due priority.

Coordinating forums, reporting and feedback mechanisms

11. Coordinating forums such as NSTT and PSTTs are important and should be strengthened. The importance of H&HE must be emphasised in these structures (this does not imply that it is not) and relevant role-players in this field need to be integral to these structures.
12. Ward committees / PSCs should be seen as local coordinating forums. Specific interventions are required to promote this collaboration.
13. Feedback systems across and within all levels of H&HE in the water services sector (as reflected in the flow diagram) are important and need to be strengthened and sustained. In particular, coordinating forums are proposed at operational levels (district and project) to provide platforms for information sharing and collaborative coordination and local planning.
14. Specific interventions with key managers to emphasise the importance of joint planning and working collaboratively is recommended.
15. The slogan “joint planning with operational collaboration” is recommended for adoption. This slogan should be a guiding principle.

Role-players

16. The role of WSPs in the national health and hygiene education strategy needs to be reviewed – WSPs should not be required to carry out project-based H&HE, unless they are involved in developing new water services infrastructure. Rather WSPs should play a role in ongoing H&HE as they are ideally placed for this through their customer relations functions.
17. PMUs need to enhance their development role in addition to their managerial one in relation to local economic development (LED) and the principles of the Extended Public works Programme (EPWP) principles (noting that most PMUs are already doing this), and to include this approach wherever possible into H&HE in water and sanitation projects.
18. The use of ISD practitioners is a sound strategy and this should continue, but steps need to be taken to ensure adherence to acceptable standards of methodology, development processes, H&HE content and materials and so on. This includes screening, support, accredited training and monitoring. Qualifications suitable for ISD training at various levels of the NQF exist and should be utilised.
19. In order to formalise the role of ISD practitioners, maintain standards within the sector and to work towards common approaches, ISD practitioners should form some kind of professional body that should engage with accreditation issues, amongst others. Membership of this body should be required as part of the municipal services procurement process.
20. While Community Development Workers (CDWs) currently do not seem to play a

significant role in the water service sector, in particular, project-based H&HE, this potential should be explored.

21. Periodic reviews of H&HE materials and programmes in the sector should be undertaken. DWAF regions are well-placed to do this as part of their support role, as are task teams of District Health Councils. These forums are linked to health districts and are very important coordinating and planning forum for MHS and EHS.
22. The role of EHPs (assuming devolution to DMs has taken place) needs to be clarified, and should probably consist of support, capacity building, monitoring and feedback and compliance.
23. Over time, EHPs should take on greater responsibility for H&HE. This provides continuity from project-based to ongoing H&HE and overcomes the problem of project-based staff moving on after project completion. The possibility of a dedicated EHS unit to carry out H&HE should be explored.
24. Clarity is required on the future role and status of EHAs/SASOs and their availability for H&HE work with EHPs. This cadre of people would significantly enhance EHPs' ability to work in H&HE programmes.
25. Ward committees are the preferred structure to involve at project level. H&HE programmes should work with or through them to identify H&HE facilitators, and ward committees should themselves become PSCs, or be involved in setting them up. Where CDWs are operating, they should be encouraged to play a support role to Ward Committees in relation to this work.
26. The work of CHWs within the PHC system should, through negotiated agreements, be extended to include water and sanitation-related issues and modules, as well as appropriate methodologies. New materials will need to be developed, and training to support CHWs in the use of the new materials will be required.
27. CDWs and ISD practitioners are both available as more general development workers and this role needs to be considered. CDWs are specifically tasked with this function and are already funded, but are not operational in all areas. Where ISD practitioners play this role suitable funding needs to be found (probably from municipal general funds) should municipalities decide to make use of ISD practitioners in this way.
28. While the ISD practitioner / H&HE facilitator model is currently the dominant one for project-based H&HE, the existing human resources within the PHC system need to be explored for potential inclusion. This will require inter-departmental / sectional agreements and a willingness to work collaboratively. This is particularly important for drawing PHC workers into supporting water and sanitation H&HE within their existing work. Such a partnership also presents good opportunities for links with existing HIV/AIDS and home-based care (HBC) programmes.

Funding

29. A review of the role of MIG funding for H&HE education (and for ISD as a whole) is required to answer the questions around whether the existing approach is effective in enhancing health through sustained behaviour change, adoption of better hygiene practices and sustainable use of new facilities. This relates to the per-household funding mechanism as well as the actual amounts allocated, which are currently considered to be

acceptable, but not fully adequate.

30. A recommended funding option is a conditional grant for sanitation-related user education, within and beyond the scope of a project, which the Department of Health administers and disburses on the basis of an agreed programme between WSAs and local stakeholders. WSA / District-level coordinating forums provide an obvious coordination point.

Monitoring

31. Lessons from successful health and hygiene programmes need to be documented and shared in order to stimulate interest and raise awareness of the health and local economic development benefits of effective health and hygiene interventions. Written and visual advocacy materials demonstrating the quantitative and financial spin offs of health and user education interventions could have a significant impact on the profile and commitment to these interventions at municipal level.
32. Health and hygiene improvement programmes and interventions across the world have identified sets of indicators. This report includes several of these that can be used for M&E purposes.
33. Effective monitoring begins in the business planning and feasibility stage and needs to be integrated throughout the project cycle, and needs to be a part of the roles and functions of all implementation staff, including H&HE facilitators.

Training requirements

34. Training is required for a number of purposes and people:
 - Project monitoring training project-based personnel such as ISD practitioners, EHPs and H&HE facilitators as well as for ward committees or PSCs. DWAF regional offices could play a role here.
 - Committee training for PSCs or ward committees in water and sanitation-related H&HE issues is required. ISD practitioners could provide this if they have the skills, or municipal LED offices could also play a role.
 - Initial accredited training for new ISD practitioners, as already mentioned earlier, needs to be considered as part of ensuring standards.
 - Orientation for EHPs who are newly at DM level and are likely to find their roles have changed, particularly in relation to H&HE in water and sanitation projects.
35. Training undertaken by H&HE role-players should, where possible, be accredited training through the SETA skills development process.
36. Training curricula for role-players such as CDWs, EHPs, CHWs and Civil Engineers should be amended to take account of the H&HE function within the water services sector, including the linkages with HIV/AIDS.

6.2 Recommended implementation strategy

One of the main problems with implementing project-related H&HE is the lack of alignment in those municipalities that do not have the authority for both water services and environmental health services.

All DMs and Metros have the authority for environmental health services and are called health districts. At this point in time no LMs have the authority for environmental health services, even though they may still have some health-related staff from prior to the promulgation of the National Health Act.

The picture for water services is different however. While all Metro's have the authority for water services, not all DMs are WSAs. Where a district is not a WSA, the LMs have been authorised for water services⁴⁰.

6.2.1 Where a District Municipality is the Water Services Authority (WSA)

As designated health districts, DMs are responsible for municipal environmental health services. Where the DM is also the WSA, it is responsible for water services policy, bylaws, planning, infrastructure development, tariff setting and regulating the provision of water and sanitation services.

As part of developing water services infrastructure, WSAs are also responsible for ensuring H&HE. DMs as health districts have a similar planning, monitoring regulatory and oversight role for environmental health services as they have as WSAs for water services.

Planning health and hygiene education

- Ensure synergies between the WSDP and the District Health Plan by improved coordination and joint planning between health and infrastructure divisions and functions of the municipality.
- Participate in district and provincial planning and coordinating forums and ensure joint planning with HIV/AIDS programmes in the area.

Delivering health and hygiene education

- Engage with ISD practitioners to coordinate and deliver H&HE in the short to medium term.
- As the DM's environmental health services become established (noting that the devolution process should be finalised by 1 July 2007), the DM's Environmental Health Practitioners (EHPs) should become increasingly involved in implementing HHE either in parallel or in collaboration with ISD practitioners, with an increased role into the future.
- By means of Memorandums of Understanding (MoUs), make use of provincial primary health care staff, specifically CHWs in cases where municipal staff or local residents are not available or do not have appropriate skills. CHWs require training in the water services aspects of health and the linkages between these and HIV/AIDS.
- Where DMs have the capacity and/or the commitment, DM-level units tasked specifically with H&HE (broadly defined) should be considered. These overcome the shortcomings associated with project-based H&HE, which is relatively short-term, is not developmental in nature and ceases once the project is handed over.
- Links must be made between HIV/AIDS mainstreamed H&HE and national and provincial HIV/AIDS programmes.

⁴⁰ In keeping with the Water Services Act (108 of 1997) "water services" refers to both water and sanitation.

Funding health and hygiene education

- Funding for ISD will come primarily from the MIG
- Funding for EHPs will come from normal DM budgets, and supplemented to a large degree by an extension of the Equitable Share to provide for the newly devolved EHPs. This extended component of the Equitable Share will be a conditional portion specifically for EHPs.

Monitor health and hygiene education implementation through feedback from ISD practitioners and ward councillors. DM WSAs can be proactive by providing appropriate baseline and monitoring forms or checklists and requiring feedback against health and HIV/AIDS-related indicators in keeping with municipal reporting requirements. EHPs have a primary responsibility for monitoring and ensuring compliance in the model, and this is one of the roles expected of them once they are operating at DM level.

6.2.2 Where a Metropolitan Municipality (Metro) is the WSA

As designated health districts, Metro municipalities are responsible for municipal environmental health services. Metros are also WSAs, and have the same WSA responsibilities as those outlined for District Municipalities.

Metros generally have more capacity than LMs or DMs, and are more able to provide effective H&HE service with 'added value' in the form of pilot projects, new approaches and the like.

The implementation strategy for H&HE in Metros is not dissimilar to DMs, with the exception that Metros should have the capacity to establish dedicated Water and Sanitation Community Education Units, e.g. eThekweni Metro.

Given the much greater size and levels of departmental capacity, the challenge for Metros is to engage in inter-departmental collaborative planning and in WSA coordination forums. Links must be made between HIV/AIDS - mainstreamed H&HE and national and provincial HIV/AIDS programmes.

6.2.3 Where a Local Municipality is the Water Services Authority (WSA)

Local Municipalities (LMs) that have been authorised for water services are required to fulfil all the WSA functions as outlined for District and Metro municipalities, including developing water services infrastructure and ensuring project-related H&HE. However Local Municipalities are currently not responsible for municipal environmental health services.

Planning health and hygiene education

- Ensure that the LM's integrated (IDP) and water services development planning (WSDP) processes align with district health planning (DHP) processes undertaken by the District Municipality.
- Participate in district and provincial coordinating forums and task teams and ensure joint planning with environmental health and HIV/AIDS programmes.

Delivering health and hygiene education

- Engage ISD practitioners to coordinate and deliver H&HE on water and sanitation projects as part of community participation and awareness.
- Noting that environmental health services and staff will be transferred to District and Metro municipalities as part of the devolution of municipal health services to district level, the LM will need to negotiate a support service agreement with the District Municipality (DM) to access environmental health services and facilitate project-related H&HE.
- Links must be made between HIV/AIDS mainstreamed H&HE and national and provincial HIV/AIDS programmes.

Funding for health and hygiene education

Funding will come from the Municipal Infrastructure Grant (MIG) and the DM's municipal health services budget in keeping with the support services agreement.

Monitoring health and hygiene education implementation

Monitoring will take place through feedback from ISD practitioners and ward councillors. LM WSAs can be proactive by providing appropriate baseline and monitoring feedback forms or checklists and requiring feedback against health and HIV/AIDS-related indicators in keeping with municipal reporting requirements.

6.2.4 Municipalities that are not Water Services Authorities (WSAs)

District Municipalities

Although DMs that are not Water Services Authorities are not responsible for project-related H&HE, District and Metro municipalities are responsible for ensuring municipal environmental health services.

As designated health districts, they can either perform this function themselves, or appoint a service provider to undertake it. They will need to ensure that environmental health services (EHS) are incorporated into the LM's water and sanitation delivery programmes through support service agreements.

Local municipalities

Since the promulgation of the National Health Act (61 of 2003), LMs no longer have environmental health functions. The devolution of environmental health staff and functions to health districts will be finalised in July 2007. If they are also not WSAs, LMs will not be responsible for ensuring water and sanitation service delivery.

They may however be contracted as Water Services Providers (WSPs). The main roles and functions of water services provision include operation and maintenance, financial management (including revenue collection), water services business planning, monitoring, and customer relations and communication. User education, including H&HE, is a key component of customer relations and communication and therefore an important part of the WSP's ongoing responsibilities.

7. Conclusion

This study has involved considerable research over a period of time. It has identified factors which constrain and enable effective implementation of project-based H&HE in the context of HIV/AIDS. Based on that research and understandings of the context, it has developed and tested various institutional and financial arrangements and developed implementation models based on this work.

This final report goes into considerable detail around these models of institutional and financial arrangements. It also presents a wide range of recommendations towards effective implementation of project-based H&HE.

The report takes into account the differences between various types of municipalities, for example, LMs that are authorised as WSAs, and DMs that are not WSAs. It then recommends various implementation strategies appropriate to these types of municipalities.

Careful consideration of the implications of HIV/AIDS for water services policy, planning, regulation, delivery and provision, together with effective H&HE, will contribute to integrated water and environmental health services that address the needs of people living with HIV/AIDS, and reduce the impact of the disease.

The study places considerable emphasis on the linkages between water and sanitation, health and hygiene education and HIV/AIDS. The impact of HIV/AIDS on the lives of many South Africans is severe; it is imperative that the water services sector formulates and implements an appropriate response as a matter of urgency. It is critical that issues around HIV/AIDS are mainstreamed, both in terms of prevention as well as in reducing the impact on people living with AIDS. Caregivers, in particular, require not only knowledge of water and sanitation and related health and hygiene issues, but also access to adequate quantities of water of good quality. All H&HE role-players in the sector must integrate issues relating to HIV/AIDS into their existing water and sanitation-related H&HE, and the sector needs to encourage and support this process, which is at present almost entirely absent.

This study has identified major areas for improvement in the sector, as well as for collaboration within and beyond the sector, particularly, partnerships with agencies and role-players involved in the HIV/AIDS sector. It is critical that H&HE gains greater status generally, because water and sanitation infrastructure development is, ultimately, not at all about 'pipes in the ground' but about health and well-being. For this reason, user education and adoption of health-promoting hygiene practices should not be peripheral to infrastructure development, but should drive them.

Municipalities have an enormous responsibility, but also an opportunity to play a central role in promoting health, well-being and economic and social growth through their infrastructure development work. Effective delivery of integrated water, sanitation and hygiene education will have a significant impact on the lives of people with HIV/AIDS. It is hoped, therefore, that the study, through its findings and recommendations, and particularly through the implementation models presented in this report, will promote greater commitment within municipalities to implementing effective H&HE, and that the strategies outlined in the report assist municipalities to put effective institutional arrangements in place.

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AMBERT C (2004), *Integrated development planning in a context of HIV/AIDS – municipal planning perspectives and responses*, Development Works, Johannesburg.

APPENDIX 1

LIST OF PUBLICATIONS EMANATING FROM THIS STUDY

Unpublished project reports

Towards Integrated Health and Hygiene Promotion and User Education: Enabling and Constraining Factors, Project Inception Report. WRC Project K5/1634, September 2005.

Understanding the Links between AIDS, Water, Sanitation and Hygiene – Experiences from Jeppe’s Reef, Nkomazi, Mpumalanga. WRC Project K5/1634, September 2005.

Rationale for Integrated Approaches to HIV/AIDS and Water Services at Municipal Level. WRC Project K5/1634, February 2006.

Indicators of Integrated Hygiene Promotion. WRC Project K5/1634, September 2006.

Presentation: Local Government Water Services and HIV/AIDS. WRC Project K5/1634.

Published project deliverables

Water Services and HIV/AIDS: A Guide for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services. TT Report Number: xx, WRC, 2007.

Water Services and HIV/AIDS: Integrating Health and Hygiene Education in the Water and Sanitation Sector in the Context of HIV/AIDS. TT Report Number xx: WRC, 2007.

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Water Services and HIV/AIDS: A Booklet for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services. WRC, 2007.

APPENDIX 2

UNDERSTANDING HEALTH AND HYGIENE PROMOTION ARRANGEMENTS Questionnaire

1. Name, designation and contact details of the person interviewed:

.....

2. Which role-players are involved in health and hygiene promotion in this district?

List all the various role-players, e.g. EHPs, service providers, community health workers, etc and who they report to, e.g. provincial department of health, or LM, or WSA, etc

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.....
.....
.....

3. Is user education and health and hygiene promotion happening during community water and sanitation implementation?

Yes or No or Sometimes? During water or sanitation projects or both? HHP and user education or which?

Discuss the reasons for this – i.e. what gets in the way, or what enables this to happen? (MIG budgets or capacity issues are likely to come up here)

.....
.....
.....

4. Where user education and health and hygiene promotion is happening during community water and sanitation implementation,

Who does it and who do they report to?

With what budget?

What kinds of methods are used?

What kinds of messages are used?

5. In terms of health and hygiene promotion (HHP) generally (not only on W&S projects),

What does the Provincial Dept of Health do?

What does the DM do?

What do the LMs do?

What does the WSA do?

Discuss who is doing what in HHP, how and when.

Note that HHP generally includes environmental health, home based care or prevention for HIV/AIDS, nutrition programmes -- any activities that promote health and hygiene.

6. What are the links between these different role-players currently, and what is envisaged in the future?

The links could include structures or forums, service agreements, or informal agreements. Discuss how well this is working, what the problems are and the factors for successful links.

.....
.....
.....
.....

7. Can you put us in touch with HHP activities so we can talk to people on the ground?

Here we want to talk to people working with 2 types of initiatives:

- *Home based care and/ or prevention programmes for HIV/AIDS, and*
- *HHP happening during water or sanitation project implementation*

Get names and contact details.

.....

8. In summary, what do you think gets in the way of effective HHP and what needs to happen to address this?.....

.....
.....

APPENDIX 3

INTERVIEW SCHEDULE FOR MODELLING PROCESS

(FOR USE BEFORE THE WORKSHOP / WITH THOSE WHO DID NOT ATTEND IT)

Introduce the project – this is work being done for the WRC looking at developing models for implementing Health and Hygiene Education at municipal level. It is being fed directly into the roll-out of the NSTT's National Strategy for HHE that DoH will drive later in the year. [Clarify that the term HHE is being used as a catch-all for all forms of it – promotion, awareness, education etc.]

So ... this is an opportunity to advise that process on the models that we will be looking at, so that they are as applicable to your particular context as possible.

1. Current role?

Clarify the person's role in the municipality and in relation to HHE and to HIV/AIDS.

2. Reviewing the models

Work through models document and ask for comment as we go.

Probe:

- In what way / why does your preferred model suit this particular municipality?
Are there ways it won't suit other municipalities?
- Funding sources
- Planning
- Management and coordination
- M&E

For each of the above ask about how it is done at present, what problems or gaps there might be and how we could improve the situation through changing the model. (**existing situation – gaps – suggestions**)

3. HIV/AIDS (mainstreaming)

There is a need to move away from a single unit addressing HIV/AIDS and to consider HIV/AIDS within all departments or sections in terms of e.g. planning, design of facilities, improving access to facilities – i.e. any aspects of your own work that can help to prevent (e.g. reduced infectiousness or susceptibility) or mitigate the impacts (e.g. easier personal hygiene or care). All HHE efforts should also address such issues (e.g. that improved health through better hygiene can reduce infectiousness and susceptibility).

So ... How could the preferred model / the model under discussion do this?

(SCHEDULE FOR USE WITH THOSE WHO DID ATTEND THE WORKSHOP)

Introduction in detail is not required.

By way of introduction ask what they thought of the workshop.

1. Current role?

Clarify the person's role in the municipality and in relation to HHE and to HIV/AIDS.

Take out the photos of the wall charts that were produced, or use the actual wall charts:

2. Review of workshop results

2.1 Do you think the deliberations at the workshop are an accurate reflection of the most appropriate model(s) for this municipality? Explain?

Probe:

- In what way / why does your preferred model suit this particular municipality?
Are there ways it won't suit other municipalities?

2.2 What would you like to change on these charts? Explain?

Probe:

- Why are the changes needed, e.g. in terms of funding, planning, management / coordination, M&E, or other institutional arrangements)

Additional probing questions:

- What issues do you think were not addressed?
- Do you think any problems were created?
- How would you change the conclusions of the workshop?

APPENDIX 4

INTERVIEW SCHEDULE FOR CASE STUDIES

1. Description of the area –

- Where is it geographically?
- What is the name and approximate size of the municipal area?
- Description of the area – households dense or scattered, vegetation, solid waste disposal, general services received (roads, electricity, tele-communications, schools, clinics, etc), evidence of food gardens, livestock
- Names of villages and approximate numbers of households in each
- Approximate percentages of households affected by HIV/AIDS
- Approximate percentages of households receiving HBC
- Composition of HIV/AIDS affected households (women, men, children)

2. Water and sanitation service provision in the area –

- Type and state of water and sanitation infrastructure
- Coverage and continuity of supply
- Water quantity and quality available
- Consumption patterns
- Use of water for different purposes
- Roles of community structures in water and sanitation delivery
- Roles of local government and service providers in water and sanitation delivery

3. Home based care –

- Roles of clinics generally and in relation to HIV/AIDS
- Distances between households and the clinic
- Ratio of HBC volunteers to households needing care
- Numbers of visits per week
- General tasks undertaken
- Constraints, frustrations, needs and successes

4. Daily routines at village level –

- What do women, men and children do over the course of a day?
- What are their pressing concerns?
- What are their livelihoods activities?

5. Experiences of those living with HIV/AIDS –

- What are their pressing concerns?
- Do they/ how do they see the role of water and sanitation in managing the disease?
- What are their links with the broader community (social support/ perceptions, etc)
- How do they use and access water and sanitation?
- What health messages are they getting, from whom and how?
- Are there any special hygiene measures being taken? (e.g. hand washing, keeping containers clean, reducing stagnant/ grey water, etc)
- How much time and energy consumed with collecting water?
- What is their satisfaction with water and sanitation services and how do they perceive their needs in this regard?

6. Reflections of those supporting people living with HIV/AIDS –

- What are the needs of infected and affected households in terms of water and sanitation services?
- What are their health and nutritional needs?
- What are the other development needs in the area?
- Numbers of people on ARV treatment and dynamics around that.
- Does HIV/AIDS affect them as a group – if so, how?
- What are the problems and how could they be solved?
- How do they make a living?
- Why do they do this work?

APPENDIX 5

LIST OF KEY RESPONDENTS

Interview respondents in eThekweni Metro

Name	Designation
Martin Zondi	Assist. Manager Env. Health, KZN Dept. of Health
Babah Kamanga	Babah Kamanga & Associates (provides ISD services)
Teddy Gounden	Manager Community Education and Councillor Liaison, eThekweni Water Services
Brian O'Leary	Geographic Information and Policy Office, Corporate Executive, eThekweni Metro
Gama Ngqulunga	Deputy Director Environmental Health, eThekweni Metro
Thokozani Khubona	Environmental Health Practitioner, I/N/K Area, eThekweni Metro
Vasie Pillay	Manager, Env. Health Unit, Tongaat/Verulam Area, eThekweni Metro
Jannie Pietersen	Head, Project Management Unit, eThekweni Metro
Clive Anderson	MIG Manager: Financial and Legal Aspects, eThekweni Metro

Interview respondents in Ugu DM

Name	Designation
Vella Gramoney	Manager, EHS, KZN Dept of Health
Jack Govender	Deputy Manager for District Health, KZN Dept of Health
Viviana Webb	Quality Assurance, Ugu District, KZN Dept of Health
Gretta Dladla	Primary Health Care, CH Facilitator
Nomakiki Majola	Health Promotion, Nutrition and MCWH
Nomaswazi Gwexe	PHC Coordinator, Umzumbe S and Central Hibiscus sub-District, KZN Dept of Health
Steve Mills	DWAF support consultant, KZN
Mabuyi Mnguni	Manager, HIV/AIDS and Special Programmes, Ugu DM.
Max Pawandiwa	GM for Ugu Water Services
Danny Govender	Manager, Ugu Water Reticulation Services

Interview respondents in Mbombela LM

Name	Designation
Linda Tyers	DWAF support consultant, Mpumalanga
Annamarie van Brakel	Acting Assistant Director, District Health, Mpumalanga Dept of Health
Thapelo Nhlapo	EHP, Mbombela sub-district, Mpumalanga Dept of Health
Martin Nyjsse	MD, Silulumanzi (WSP), Ehlanzeni
Matibidi Rhiapela	Director, Rhiapela General Services
Kathy Olivier	Dep. Director, PHC, Mbombela sub-district, Mpumalanga Dept of Health
Pierre van Brakel	Asst. Director, Municipal Health Services, Ehlanzeni DM
Pulane Nkosi	Dep. Director Strategic Planning and Sustainable Development, Mbombela LM.
Joel Mushwana	Project Manager, Mbombela LM MIG PMU

APPENDIX 6

LIST OF WORKSHOP PARTICIPANTS

Participants in eThekwini workshop

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Vasie Pillay	Ethekwini Health Unit	032-533-3834; pillayva@durban.gov.za
Tim Houston	Ethekwini Health Unit	031-311-3560; envirohealth28@durban.gov.za
Sunjay Naraindass	Ethekwini Health Unit	031-311-6629; naraindassa@durban.gov.za
Ingrid Frank	Ethekwini Health Unit	031-311-3585; frankid@durban.gov.za
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Bawinile Nzimande	Ethekwini Health Unit	031-311-3654; nzimandeb@durban.gov.za
Lucky Sibiya	Ethekwini Water & San.	031-311-8726; luckysi@dmws.durban.gov.za
Khulekani Mungwe	Ilembe Health District	032-437-3500; khulekani.mungwe@kznhealth.gov.za
Teddy Gounden	Ethekwini Water & San.	031-311-8667; teddygo@dmws.durban.gov.za
Simla Salikram	Ethekwini Health: Waterfall	031-311-6962; salikrams@durban.gov.za
BEG Shabalala	KZN Health	031-907-2210; -

Participants in Ugu workshop

Name	Organisation	Contact details
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Steve Mills	Ugu PMU support	082-444-5527; stevemills@telkomsa.net
Peter Tanner	Ugu DM Env Health	082-558-8412; tanner@ugu.org.za
Nomsa Mlaba	Hibiscus Coast LM Health	084-769-0589; mlaba@hcm.gov.za
NR Majola	KZN Health District Office	072-133-0692; nomakiki.majola@kznhealth.gov.za
BG Mkhize	Dept of Education	082-041-1047; giftm@kznedu.kznfp.gov.za

APPENDIX 7

PROPOSED MINIMUM STANDARDS FOR HEALTH AND HYGIENE EDUCATION (NATIONAL HEALTH AND HYGIENE EDUCATION STRATEGY 2004: 50)

The table below indicates the minimum standard messages, implementation methodologies and resources. It also indicates which programmes these should form part of and the frequency of implementation:

Theme	Minimum Standard Message	Minimum Methodology	Resource /Implementation Tools	Programme	Frequency
Breaking the cycle of disease	<ul style="list-style-type: none"> • Understanding disease transmission routes • How to keep food and water free of germs • Hand washing at critical times • How to purify water • How to safely and effectively dispose of household wastewater (grey water) 	Participatory approach Small group workshops House to house visits	Primary Resource: Standard health and hygiene education resource pack e.g. SIT Pack Other Resources: Pamphlets, Posters, Drama	Project Based Ongoing	Once Education phase Twice Reinforce End User Phase Every 6mths
How poor sanitation affects the environment	<ul style="list-style-type: none"> • How VIPs could contaminate water sources (construction and siting issues) • Dangers of unimproved pit toilets • Dangers of unprotected water sources • Dangers of veld defecation 	Participatory approach Small group workshops House to house visits	Primary Resource: Standard health and hygiene education resource pack e.g. SIT Pack Other Resources: Pamphlets, Posters, Drama	Project Based Ongoing	Once Education phase Twice Reinforce End User Phase Every 6mths
Water and sanitation related disease identification and basic treatment	<ul style="list-style-type: none"> • Causes of Cholera and diarrhoeal diseases • Identifying the Symptoms of Cholera and diarrhoeal diseases • How to treat Cholera and diarrhoeal diseases • How to prepare the oral re-hydration mixture • Responding to acute symptoms 	Participatory approach Small group workshops House to house visits	Primary Resource: Standard health and hygiene education resource pack e.g. SIT Pack Other Resources: Pamphlets, Posters, Drama	Project Based Ongoing	Once Education phase Twice Reinforce End User Phase Every 6mths
Operating and maintaining your sanitation facility	<ul style="list-style-type: none"> • How to operate and maintain your sanitation facility • Understanding technical options and benefits • 			Project Based Ongoing	Once End user education Every 6 months
Improving your sanitation facility	<ul style="list-style-type: none"> • How to upgrade an unimproved pit latrine 	Participatory approach Small group workshops House to house visits	Primary Resource: Standard health and hygiene education resource pack e.g. SIT Pack Other Resources: Pamphlets, Posters, Drama	Ongoing	As and when necessary
How poor sanitation and hygiene practices impact on those affected by HIV/AIDS	<ul style="list-style-type: none"> • Disposing of blood and body fluids • Preventing disease through good sanitation practices • Feeding babies for health 	Participatory approach Small group workshops House to house visits	Standard health and hygiene education resource pack e.g. SIT Pack Other Resources: Pamphlets, Posters, Drama	Project Based Ongoing	Once Education phase Twice Reinforce End User Phase Integrated as part of HIV AIDs support programmes

APPENDIX 8

DWAFF'S KEY PERFORMANCE INDICATORS FOR HEALTH AND HYGIENE EDUCATION

(NATIONAL HEALTH AND HYGIENE EDUCATION STRATEGY 2004: 67-68)

Ref#	Outcome measured	Proposed Performance indicators	Unit of Measurement	Data Sources	Custodian	Data Collector	Information User
1.4	Delivery of Health and Hygiene Education						
1.4.1		Number of households reached as part of project based Health and Hygiene education programmes	Number of Households	Relevant M&E System	National Department of Health	WSA Provincial Health Department	Programme Managers
1.4.2		Number of households reached with Health and Hygiene education as part of ongoing health and hygiene education programmes	Number of Households	Relevant M&E System	National Department of Health	MHS Provincial Health Department	Programme Managers
1.4.3		Number of workshops completed as part of ongoing Health and Hygiene education initiatives (not linked to delivery of toilets specifically)	Number of workshops	Relevant M&E System	National Department of Health	MHS Provincial Health Department	Programme Managers
1.4.4		Number of schools where staff were educated on Health and Hygiene education	Number of Schools	Relevant M&E System	National Department of Health	Provincial Department of Education	Programme Managers
1.4.5		Number of clinics where staff conduct Health and Hygiene education	Number of Clinics	Relevant M&E System	National Department of Health	MHS Provincial Health Department	Programme Managers
1.4.6		Provinces where Health / Hygiene issues are included in the school curriculum	Number of Provinces	School Curriculum	National Department of Health	Provincial Department of Education	Programme Managers
Health & Hygiene – Impact of Programmes on Community Health							
1.8.1		Funding specifically for Health and Hygiene Programmes			DWAF	DWAF	Cabinet Portfolio Committee / WWAP
1.8.2		% of population using sanitation facilities that are safe and hygienic as defined in the Water Services Framework			DWAF	DWAF sample survey	Cabinet Portfolio Committee / WWAP
1.8.3		Number of deaths due to sanitation related diseases			Dept Health (Prov)	DHS-DHIS clinic records	Dept Health (Prov)

Ref#	Outcome measured	Proposed Performance indicators	Unit of Measurement	Data Sources	Custodian	Data Collector	Information User
1.8.4		Effectiveness of health and hygiene programme as measured in post project assessment:					
1.8.4 .1		Clinic records of % of children under 36 months with diarrhoea	Percentage of children younger than 3 years		Dept Health (Prov)	DHS-DHIS LA Clinic records	Dept Health (Prov)
1.8.4 .2		% of children caregivers and food preparers with appropriate hand washing behaviour	Percentage of observed population		Dept Health (Prov)	MHS DHS-DHIS Sample survey LA CHWs	Dept Health (Prov)
1.8.5		Number and severity of sanitation related contamination incidents of:					
1.8.5 .1		Groundwater	Number of occurrences		DWAF Resources	DWAF	DWAF Resources
1.8.5 .2		Surface water	Number of occurrences		DWAF Resources	DWAF	DWAF Resources

A background image showing a group of people, including children, gathered around a water tap. One person is filling a container, while others wait. The scene is outdoors and appears to be in a rural or developing area.

Copies of this Report can be requested from:

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The following are companion publications to this report.

They can also be requested from the Water Research Commission:

Water Services and HIV/AIDS: A Guide for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services. TT Report Number: xx, WRC, 2007.

Water Services and HIV/AIDS: A DVD for Councillors. WRC, 2007.

Water Services and HIV/AIDS: A Booklet for Local Government Councillors and Officials Responsible for Water, Sanitation and Municipal Health Services. WRC, 2007.