

HIV Nursing matters

A publication of the Southern African HIV Clinicians Society



Nursing occupational health

Infection control in HIV care

HIV post-exposure prophylaxis guideline update & self-testing

Overwork & nursing

June 2016 Volume 7 No. 2



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Guest editorial



Jennifer Cohen

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Nursing is a profession unlike any other in South Africa: female-dominated and notoriously stressful, yet offering secure employment, in contrast to many other types of increasingly casualised work in Africa and elsewhere. Nurses are securely employed in the sense that the work is formal and contracted, they are unionised, and are in short supply relative to the demand for health care. Given these labour market conditions, nurses should enjoy a measure of bargaining power to secure good working conditions. The reality is that they continue to confront a number of challenges which are explored in this issue of *HIV Nursing Matters* centred on the theme of occupational health.

During the past year, I conducted in-depth interviews with about 70 professional, staff and auxiliary nurses in a public hospital in Gauteng. The interviews focused on challenges encountered in their daily lives, which often connect their work lives with their lives at home. I was struck by the intensity of nurses' emotions as they described the strain that they are under on a daily basis. There were single mothers who struggle to pay for childcare, nurses who support more than 20 family members on their

earnings, and those who are ill or who care for family members with mental illnesses, HIV or physical disabilities. These were often the same nurses who thrive on the work itself; who love helping patients get well and are often pleased with the autonomy that income from nursing offers.

Some of the nurses were emotionally exhausted, having poured all of their work into caring for others, seemingly without being cared for themselves. As one nurse put it in our interview: "Who will care for the carers?"

This important question has a number of possible answers, some of these are noted in Venter's article in this issue (p. 8). The article documents a wide range of interrelated occupational health hazards, from chronic and infectious diseases, to risk of physical injury.

In terms of biological hazards, occupational exposure to HIV and TB are key concerns. Crowley, Klopper and Moorhouse (p. 27) provide an update on the post-exposure prophylaxis (PEP) guidelines for HIV in the health sector. The piece clarifies the correct steps to take in case of exposure to HIV, and notes that PEP services need to be scaled up in order for health care workers to care more effectively for themselves and each other. Mramba and Garcia-Prats (p. 32) offer a rich discussion of TB transmission from an infection prevention and control perspective, specifically with respect to paediatric settings.

Sleep disorders, anxiety and depression are likely under-diagnosed among nurses, in part because nursing is known to have a relatively high degree of occupational stress. Occupational stress can enhance performance up to a point, but can contribute to excessive strain beyond that. Many nurses are under considerable stress from their lives outside of paid work as well. In

our interview-based study in Gauteng, nurses felt 'overworked'. This is also explored in greater detail in this issue (p. 12).

Another cause of mental strain for nurses is moral distress – the sense that one's moral integrity is threatened by a mismatch between one's values and perceptions or actions. Many of the nurses I interviewed believed that young girls are having 'babies for bling' and experienced frustration over providing care that they perceive to be contributing to a social problem. Hodes, Toska and Gittings (p. 20) look at the question of whether teenage girls are having children in order to access the Child Support Grant using data from the Mzantsi Wakho study, and find that the grant may instead make girls less vulnerable and less likely to engage in risky behaviours.

Each article contributes to a better understanding of the ways in which nursing is a stressful profession, even though the work is secure. An answer to the nurse's question, 'Who will care for the carers?' is complex. Some of these challenges can simply be addressed individually or institutionally, while others require structural changes to the profession. Still other challenges that nurses confront in their work lives extend beyond the workplace, into nurses' own households and into those of family and friends, and relate to child- and elder-care, financial dependency, and complicated familial relationships.

One certainty is that nurses must care for themselves and for each other and that nursing organisations and unions must advocate for improved working environments. A conclusion drawn from the interviews that I conducted in Gauteng is that other nurses are often a nurse's best resource: each nurse has expertise and skills learned through experiences in their daily lives that are valuable to those they work with. Actively trying to create a more supportive and collaborative working environment would facilitate sharing expertise and could help enhance occupational health for nurses.

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Message from the president



Dr Francesca Conradie

President, Southern African HIV Clinicians Society

When I became a doctor I was very young and naive. I wanted to make sick people better and there were things I never thought about.

The first was that I needed to look after my own mental health to be a good doctor. I worked as an intern at Chris Hani Baragwanath Hospital in 1989. And I saw, as in many emergency departments, terrible things: severe injuries, illnesses and death. And this exposure made me hard. I had to leave this environment to gain perspective and to get my compassion back. I wish, looking back on that time, that I had been for debriefing more often, even if it was only with my colleagues.

The other thing is that we, as health care workers, can get infections from our patients. I have seen a number of health care workers who have acquired TB and even HIV at work. While it is the responsibility of the employers to provide a safe environment for staff, we also need to take responsibility for our own health. With the high prevalence of TB, we are at real risk at work. And there are some very resistant TB bacilli out there. While I do not enjoy wearing an N95 mask, I do not want to be infected with MDR- or XDR-TB. So, I put the mask on, and carry on.

My advice as you read this publication: remember that to be the best health care workers, we need to keep ourselves well – mentally, emotionally and physically.



News

The full articles may be accessed via the 'Read further' links provided.

Gender differences and relationship power could be key in preventing HIV among South African adolescents

Published by **Science in Action**
on 26 April 2016

Millions of those infected with HIV worldwide are young women, aged 15 - 24, according to the World Health Organization. Because the HIV epidemic overlaps with an epidemic of intimate partner violence (IPV) against women and girls, researchers have suspected a correlation between inequities in relationship power and the risky sexual behavior that can lead to HIV transmission.

A new research study from the University of Pennsylvania's School of Nursing (Penn Nursing), Annenberg School for Communication, and Perelman School of Medicine, investigated and confirmed those associations of IPV and relationship

power with sexual-risk behaviours in adolescents. The researchers identified promising pathways to reduce IPV and help prevent HIV infection, including promotion of gender equity as a social norm. The findings are set for publication in an upcoming issue of *Health Psychology*.

The research was conducted in South Africa, where the prevalence of both HIV and IPV is high and men often have more power in relationships than women. The team assessed data from more than 700 sexually experienced adolescents in the Eastern Cape Province, South Africa, who had been followed up at regular intervals for 54 months as part of a separate NIH-funded trial ...

Read further: <http://www.nursing.upenn.edu/research/Pages/Science-In-Action.aspx?itemID=172>

New HIV treatment to debut in June

Published by **Health-e News**
on 19 April 2016

ViiV Healthcare is expected to introduce the latest in antiretroviral treatment in South Africa's private sector in June at about R720 per month.

Although the brand name version of dolutegravir is registered for use in South Africa, generic registrations may take up to three years.

The new drug, dolutegravir, is also marketed under the name Tivicay and, like other ARVs, must be used in combination with other ARVs. The new drug has already made headlines due to low side-effects and its ability to control the virus better and sooner than South Africa's most common HIV treatment in some ...

Read further: <https://www.health-e.org.za/2016/04/19/new-hiv-treatment-debut-june/>

Treating mental health helps economy

Published by **Business Day Live**
on 13 April 2016

Every rand invested in treating depression and anxiety will yield a four-fold return in better health and greater workplace productivity, according to a global study by the World Health Organization, published in the *Lancet Psychiatry* journal on Wednesday.

The findings add weight to calls for increased funding for mental health programmes in low- and middle-income countries, such as SA, where they receive a meagre slice of health-care budgets. Domestic figures are sketchy, but experts agree that too few resources are allocated to mental healthcare ...

Read further: <http://www.bdlive.co.za/national/health/2016/04/13/treating-mental-health-helps-economy>

Home HIV testing gets the green light

Published by **Health-e News**
on 8 February 2016

Pharmacists can sell take-home HIV testing kits, according to Pharmacy Council of South Africa Registrar and CEO Amos Masango. According to Masango, a May 2015 decision by the council effectively quietly removed the ban on pharmacist sales of HIV self-testing kits. The decision comes almost one year after the council gazetted a draft plan to remove the ban. The proposed lifting of the ban was warmly received publicly, Masango told Health-e News ...

Read further: <https://www.health-e.org.za/2016/02/08/home-hiv-testing-gets-the-green-light/>

Taking the HIV prevention pill is about recognising your risk

Published by **Bhekisisa**
on 19 April 2016

Elected state clinics will soon provide a pill that can prevent HIV infection to people at high risk of contracting the virus.

Eight of the 10 sites where between 3 000 and 5 000 HIV-negative sex workers will get an antiretroviral pill that prevents HIV infection will be ready to do so in June, according to the health department's deputy director general of HIV, Yogan Pillay.

The 2013 - 2014 South African Health Monitoring Survey with Female Sex Workers, which was conducted among about 2 000 sex workers in Johannesburg, Cape Town and Durban, found that about 72% of women surveyed were HIV-infected ...

Read further: <http://bhekisisa.org/article/2016-04-19-prep-is-about-recognising-your-risk>

One in nine TB patients co-infected with diabetes

Published by **Health-e News**
on 19 April 2016

About one in nine South African tuberculosis (TB) patients are also living with type 2 diabetes, according to Stellenbosch University medical biologist Dr Katharina Ronacher. Ronacher warns rising rates of co-infection could have consequences for treatment outcomes.

About 2.3 million South Africans may be living with diabetes and many of these people may not even know it, according to the International Diabetes Federation.

According to the federation's 2015 atlas, nearly half Africa's diabetes patients are found in just four countries - South Africa, Democratic Republic of Congo, Nigeria

and Ethiopia. The federation estimates that two-thirds of diabetes patients in Africa are undiagnosed ...

Read further: <https://www.health-e.org.za/2016/04/19/one-nine-tb-patients-co-infected-diabetes/>

'Not only are people with diabetes more likely to get TB, they are also less likely to respond to treatment.'

Quarter of surveyed health facilities report stock outs

Published by **Health-e News**
on 16 April 2016

Almost 25% of health facilities surveyed nationally have gone without HIV or tuberculosis (TB) medicines at least once in the last year, according to preliminary survey results released this week.

As part of its third annual survey, the civil society coalition Stop Stock Outs Project telephoned about 60% of the country's public health facilities in late 2015. As part of the survey, facility staff were asked whether their facility had experienced a shortage of HIV, TB or other essential medicines and vaccines in the preceding three months ...

Read further: <https://www.health-e.org.za/2016/04/16/quarter-surveyed-health-facilities-report-stock-outs/>

Delamanid clinical access programme expected

Published by **Health-e News**
on 29 March 2016

The South African National Department of Health is expected to roll out a clinical

access programme to allow drug-resistant tuberculosis (DR-TB) patients access to the new drug delamanid.

According to Director of the Department of Health's DR-TB, TB and HIV division Dr Norbert Ndjeka, the Department is currently in talks with Japanese drug maker Otsuka Pharmaceutical to negotiate access to Otsuka's DR-TB drug delamanid for what will initially be a small number of patients as part of a clinical access programme ...

Read further: <https://www.health-e.org.za/2016/03/29/south-africa-to-roll-out-delamanid/>

'South Africa treats about 12 000 MDR-TB patients each year and only 40% are ever cured ... Delamanid could help the country improve these cure rates.'

New clinical trial may shorten TB treatment for kids

Published by **Health-e News**
on 24 March 2016

About a million children develop tuberculosis (TB) annually around the world and when they do, they are often forced to try to take tiny handfuls of adult-sized tablets for months. Now, local researchers are looking at ways to make TB treatment for kids shorter and easier.

When the world's tiniest patients develop active TB, everyone from mom to the local clinic nurse is left trying to crush adult-sized tablets into bitter-tasting, kid-sized portions ...

Read further: <https://www.health-e.org.za/2016/03/24/new-clinical-trial-may-shorten-tb-treatment-for-kids/>

South Africa rolls out 'test and treat' to sex workers

Published by **Health-e News**
on 4 March 2016

South Africa has become one of the world's first countries to begin rolling out pre-exposure prophylaxis as well as 'test and treat' to sex workers as it launches Africa's first plan to prevent and treat HIV among sex workers.

South Africa will soon begin providing HIV treatment to HIV-positive sex workers upon diagnosis as part of a new national plan announced late Friday. Currently, most people living with HIV must wait until their CD4 counts – a measure of the immune system's strength – fall to 500 before they can start treatment ...

Read further: <https://www.health-e.org.za/2016/03/14/south-africa-rolls-out-test-and-treat-to-sex-workers/>

Occupational health into mainstream healthcare (planning the future: implications for occupational health; delivery and training)

Published by **UK Council for Work & Health**
in March 2016

The number one recommendation from a recently released report from the Council for Work and Health, based in the UK, is the integration of occupational health into mainstream healthcare provision. 'Return to work should be a clinical outcome for care pathways formulated for adults who need or wish to work. Clinical health care teams in hospital and general practice settings should have access to, and be able to refer to, competent advice to facilitate appropriate return to 'good work' ...

Read further: <http://www.councilforworkandhealth.org.uk/images/uploads/library/Final%20Report%20-%20Planning%20the%20Future%20-%20Implications%20for%20OH%20-%20Proof%202.pdf>

ARV-infused vaginal ring significantly lowers HIV infections

Published by **Bhekisisa**
on 3 February 2016

Trials have found that vaginal rings containing an antiretroviral drug could more than halve women's chances of contracting HIV if used consistently.

A vaginal ring infused with anti-HIV medication can reduce women's chances of contracting the virus by almost a third – and by up to 56% in women older than 21 – according to the results of two clinical trials announced at the annual Conference on Retroviruses and Opportunistic Infections in Boston in the United States on Tuesday.

The trials required over 4 000 HIV-negative women aged between 18 and 45 in South Africa, Uganda, Zimbabwe and Malawi to insert a flexible silicone ring containing the antiretroviral dapivirine into their vaginas. They had to replace the ring every month over a period of two years ...

Read further: <http://bhekisisa.org/article/2016-02-23-drug-laced-vaginal-ring-could-lower-hiv-infections>

Promising new HIV prevention tool gives women greater control

Published by **Business Day Live**
on 23 February 2016

A new tool for women to protect themselves against HIV is a step closer, with the announcement on Monday that a vaginal ring containing the antiretroviral drug dapivirine is safe and reduces the risk of infection by up to 56%.

The results of two phase 3 studies – the Ring Study and ASPIRE – were released on Monday at the annual Conference on Retroviruses and Opportunistic Infections in Boston, paving the way for the developers of the ring to apply for regulatory approval.

More than 4 500 women were enrolled in the two studies, which each included volunteers from SA ...

Read further: <http://www.bdlive.co.za/national/health/2016/02/23/promising-new-hiv-prevention-tool-gives-women-greater-control>

Policy: Managing patient safety incidents in South Africa

Published by **Health-e News**
on 8 January 2016

Released in December, this 56-page policy outlines the management of patient safety incidents, including the provision of feedback to patients, families and clinicians, as well as the sharing of lessons learned.

This policy describes a national standardised system for managing patient safety incidents to ensure that health facilities, district offices, provincial offices and the national office respond effectively to patient safety incidents.

According to the document, all health facilities must have a system in place to manage patient safety incidents according to the following principles ...

Read further: <https://www.health-e.org.za/2016/01/08/policy-managing-patient-safety-incidents-in-south-africa/>

SA registers a two-in-one pill that can prevent HIV infection

Published by **Bhekisisa**
on 9 December 2015

South Africa has become only the second country in the world to allow widespread access to groundbreaking HIV pre-exposure prophylaxis medication.

On Tuesday, the Medicines Control Council (MCC) helped secure South Africa's leading position on the continent in the fight against AIDS. In one press release they have allowed a new, extremely easy-to-use and powerful weapon to stop HIV-negative South

Africans from ever contracting the virus. The MCC has officially registered the use of a combination pill of two anti-retroviral drugs as a form of pre-exposure prophylaxis (PrEP) medication; a pill taken once a day that massively reduces the chances of contracting HIV ...

Read further: <http://bhekisisa.org/article/2015-12-09-sa-registers-a-two-in-one-pill-that-can-prevent-hiv-infection>





Nursing occupational health

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A challenge for governments, public health, trade unions and nurses themselves

Nurses are a unique occupational group, when one looks at the myriad of health challenges they may face in an average career. A nurse may transition from a frontline shift-work job in a hospital, to working days in a primary care clinic and occasional nights in casualty, to a management role requiring substantial desk work, to a pharmaceutical representative required to undertake frequent travel. This article focuses on occupational health challenges that nurses face doing conventional clinical practice, rather than managerial or other roles in which they may find themselves.

Nurses' health matters, especially in Africa, where nurses are a precious commodity. There are far too few of them to meet the health needs of the population and training takes substantial time and resources. In many areas in Africa, nurses are the only health care resource available; the fact

that occupational health receives very little attention does not make sense, especially as some interventions can easily be accommodated in health facility planning and management.

Occupational health for nurses can broadly be broken down into several categories. The majority of nurses are women, so this article will focus on issues directly affecting them, although most areas also apply to men.

Shift work, overwork and chronic diseases

These are discussed together, as issues such as hypertension, obesity, diabetes and mental disorders themselves interact in complex ways, and are exacerbated by shift work and sleep disturbances. Shift work is only one aspect that may contribute to this complex interplay, and nurses who do not do shift work may still have a

high incidence of these disorders. High workloads, especially in the context of nurse shortages, which are common across Africa as noted above, affect many of these disorders, and may also affect sleep and stress, even in the absence of shift work. In addition, nurses often earn more than women from surrounding communities, and are often expected to shoulder added support burdens for their families, which can create significant stress. Finally, unpaid reproductive work still falls predominantly on women. Childcare facilities for unsociable shift work times may not be available, meaning that home life creates additional stress.

It is important to realise that many consequences of chronic diseases are extrapolated to Africa from health data taken from developed countries; it is important to have a healthy scepticism about some of the so-called 'chronic diseases' that are commonly cited as

'epidemics' in African communities, as we lack data on the extent of the consequences of these disorders, as well as on their causality. That said, certain issues such as sleep problems and diabetes clearly impact on health and quality of life, with interventions that can help people with these disorders. HIV is now regarded as a chronic disease, but is covered elsewhere in the article.

Sleep: Shift work is strongly correlated with sleep problems, for obvious reasons. Tiredness, insomnia, and poor quality sleep all impact heavily on quality of life in multiple studies, and interventions are often inadequate. Sleep disorders have been associated with weight gain and hypertension. Sleep is often further disrupted by exposure to light, interruptions by children and family, and daytime noise. Medication that induces sleep artificially can assist, but is rarely an option for the long term, due to increased tolerance, dependence (especially with the older medications) and cost. Typical 'sleep hygiene' advice may help (comfortable bed, light and noise control, etc.), but the temporal nature of shift work may prove to be very difficult in lessening impact of poor sleep. Recently, cognitive behavioural therapy interventions have been used successfully for insomnia, and may help address other areas that may be useful in nursing, such as stress and burnout.

Obesity: Many countries in Africa have documented rapid rises in weight as people become wealthier and eating patterns change. South African women have recently been said to have the highest rate of obesity in the world (South African men came in seventh), and it is likely that nurses are similarly affected. Shift work is associated with weight gain, presumably because of unsocial eating times, time pressures, and lack of access to healthier food. The definition of obesity has recently been challenged, but there definitely are associated disorders at extreme weight gain, including joint and back problems, that may affect other areas of nursing

activity. Associations with elevated cholesterol, high blood pressure and abnormal sugars have been raised. However, there is a substantial amount of research to demonstrate that inactivity may be a far more serious risk factor than weight gain, which is notoriously difficult to reverse.

'[n]urse complaints around patient care and other issues may not be taken seriously, leading to a feeling of disempowerment, as well as poor peer support ...'

Recent dietary advice has veered towards cutting down on refined carbohydrates, especially sugar, and away from recommending low-fat diets; the diet field, however, is notoriously faddish, with few evidence-based recommendations beyond those around refined carbohydrates, as a mechanism to reverse weight gain. Exercise is similarly controversial as a mechanism to reverse weight gain; however, inactivity (the 'couch potato') is firmly linked to poor health outcomes, even in skinny people, and trying to stay active seems prudent advice.

Diabetes: Raised blood sugar is associated with obesity (although weight and diabetes may be more related to intake of refined carbohydrates, than a causative association; many cases of diabetes are now being noted in people with normal weight); diabetes-related mortality is significant in countries that have accurate data. Diabetes complications are complex and myriad, with impact on kidneys, eyesight, circulation to feet and hands, and on cardiovascular health. Diabetes outcomes can be modified with a range of lifestyle modifications, which include medication, but require a comprehensive approach.

Hypertension: This chronic condition appears to be associated with cardiovascular and renal outcomes, although its manifestation in Africa appears to be different from heavily studied populations in richer countries. As with diabetes, treatment revolves around lifestyle modification and medication.

Mental illness: There are few data on the prevalence of mental illness among nurses; however, it is unlikely to be lower than the general population, where undiagnosed anxiety and depression is very high. Women in particular have high rates of these disorders, and again, the fact that nurses are overwhelmingly female, suggests that prevalence would be high. Mental illness remains highly stigmatised, even among health care staff. Referral mechanisms for treatment are notoriously inadequate, despite availability of some effective interventions. Shift work has been associated with depression.

Substance abuse: Again, there are few data to suggest that levels of use of substances such as tobacco, alcohol and illegal recreational drugs, all but interact with chronic disease presentation. Opiate and other addictions to drugs available through the workplace would be more prevalent among health care workers (HCWs), due to easier access, but almost no data are available on this issue.

'Burnout' and compassion fatigue: Some work has been done on 'burnout' and compassion fatigue, two distinct but related entities that have had substantial media attention. The advent of video capture has highlighted public and very distressing instances of nurses behaving callously or even abusing patients. The reasons for this are very complex, but seem largely related to an unsupportive workplace environment, where nurse complaints around patient care and other issues may not be taken seriously, leading to a feeling of disempowerment, as well as poor peer support, where fellow nurses do not hold their work colleagues

accountable to commonly held ethical and professional standards.

Occupational interventions to address chronic diseases: Occupational support to address these chronic diseases is complex; shift work is required for patient care, so this aspect of nursing care will remain as part of the work landscape requirements. Workplace-based screening programmes that screen for obesity, diabetes, hypertension, renal disease and mental illness can be implemented relatively simply. Practical advice on issues surrounding sleep could easily be provided. Better management support may have an impact on burnout and compassion fatigue. Further research can help identify effective interventions for addressing complex issues of occupational health and chronic diseases.

Infectious diseases

Nurses are a critical part of the triage process, and are often the first to have contact with people with infectious diseases. Personal protection devices are often expensive, uncomfortable and unwieldy, and often disliked by patients, as they can create perceived barriers to human interactions. Gloves, masks and aprons may provide some protection from bodily fluid exposure, but the nature of clinical care is that they may not be used at the point of contact. Occupational exposures, such as needle stick injuries, cause significant anxiety due to high background pre-

‘Occupational exposures, such as needle stick injuries, cause significant anxiety due to high background prevalence of HIV and hepatitis B, and often inadequate access to timely prophylaxis.’

valence of HIV and hepatitis B, and often inadequate access to timely prophylaxis.

Tuberculosis: TB deserves special mention, as a major occupational hazard. Both drug-sensitive and -resistant TB affect HCWs disproportionately, especially those with HIV, and drug-resistant TB carries substantial mortality, and treatment is very toxic. TB prevention requires facilities that encourage ventilation and exposure to sunlight, patient isolation, as well as personal protection devices such as N95 masks. Unfortunately, little attention has been given to facility design with ventilation in mind – many clinics and hospitals were built decades ago, and renovations are expensive or impossible. Even newer facilities rarely seem to be built with occupational exposure to TB in mind, a huge problem when one considers that TB can live for months in droplet form, if not exposed to sunlight. Isolation of patients with sputum-positive TB is rarely undertaken, often due to overcrowding of health facilities. Finally, N95 masks are somewhat effective in stopping inhalation of TB bacilli, but are expensive and uncomfortable; in addition, they are often confined to use in TB or infectious diseases wards, and not in many other places in which TB is commonly found, including admission areas.

Influenza: Flu carries substantial morbidity for HCWs, who are more likely to be exposed to the virus than the general population. A partially effective vaccine is available, and may be obtained through some workplace programmes, although is not mandatory. Flu also carries substantial morbidity and mortality risks for hospitalised patients, where it can have devastating consequences in already ill patients. Calls for the mandatory vaccination of HCWs have been tempered recently by data questioning how effective routine HCW flu vaccines are in preventing hospital infections. In some developed world countries, HCWs with upper respiratory

infection symptoms are not permitted to come to clinical work.

Blood-borne infectious diseases: HIV is the most feared blood-borne virus in the Southern African region, although it is now readily treatable with safe medication, with a return to near-normal life expectancy. HIV occupational exposure is common, although actual transmission appears to be very unusual; nurses are far more likely to acquire HIV sexually than through blood or other exposure at work. Hepatitis B is far easier to transmit via needle sticks than HIV, and is very common, but with a very effective vaccine available, which is compulsory in some countries for HCWs. Hepatitis C is common in certain pockets in Africa, and, while now curable, requires drugs that are extremely expensive and generally not yet available in the places where the virus exists. Organisms such as malaria, syphilis and others are very rarely spread through blood exposure.

Dread diseases: Ebola outbreaks have focused urgent attention on the risks that HCWs face. The areas where these outbreaks have occurred have some of the most fragile health care systems; Ebola deaths among trained nurses decimated maternal health services in Liberia in a very short time, with catastrophic consequences for maternal and infant health. The very complex community engagement seen with the Ebola outbreaks, with attacks on health care staff wearing protective gear, has also focused attention on education, and the impact of protective gear on patient perceptions of staff. Health care staff, especially those involved with initial contact with ill people at facilities, as well as those undertaking intense nursing, in environments such as hospitals and high care environments, are likely to be canaries in the mine for many similar infectious diseases.

Occupational interventions to address infectious diseases: There should be clear protocols for things such as exposure to infectious fluids, and the handling of patients with potentially transmittable diseases. Protocols for dealing with known exposures and access to prevention interventions (such as post-exposure prophylaxis for HIV and hepatitis B), should be readily available and monitored.

Some infectious diseases are easily dealt with through vaccinations – all HCWs should ensure they have access to the hepatitis B vaccine, which is very effective. Those who have had the vaccine should have titres checked periodically. The flu vaccine should be offered annually, due to the high-risk nature of contact with flu patients.

New vaccines against Ebola look very promising, and should be made available to frontline workers as soon as they are shown to be safe and effective.

HIV-positive nurses should consider their options carefully, as they are at very high risk of acquiring TB. At the very least, they should be on suppressive antiretrovirals, appreciating that TB risk still is significant. Additional prophylaxis with isoniazid should be considered. Ideally, HIV-positive nurses should avoid working in high-TB burden areas, such as casualties, medicine wards or TB hospitals, when making career choices.

The role of unions and other professional bodies needs mentioning. There has been precious little advocacy around ensuring a safe environment for patient care. Needle stick injuries are widely recognised as management failures, but workplaces rarely investigate them as such. Facility safety is unlikely to change, based on current experience, without advocacy around HCW health. These issues are easily monitored, and should be a major focus of groups tasked with looking after the well-being of nurses.

Occupational health and patient care

Mechanical assistance for the movement of patients is very limited, as it is a complex task; nurses are often responsible for the lifting and moving of patients, in and out of beds, into wheelchairs and stretchers, and onto diagnostic equipment.

Backache and joint problem: These are almost invariable, especially in in-patient care, or where poorly designed furniture exists. Nursing care of patients involves examinations that may involve lifting, rolling and moving patients. Some studies have shown high levels of backache and knee and hip pain among nurses, enough to have an impact on quality of life.

Violence: Studies have shown substantial risk for HCWs to be exposed to violence at work, largely through exposure to mentally ill, intoxicated or upset patients or their families. Immobilisation of violent patients is complex from a practical perspective, as well as from legal and ethical perspectives.

Occupational interventions to address patient care issues: Thoughtful design of facilities and equipment that makes movement of patients easier has been implemented in many richer countries, and should be assessed for implementation in local scenarios, according to budgets. Clear guidance on dealing with violent patients that permits safe restraint within legal limits is usually available, and needs to be easily accessible in areas where violence is most likely, such as in casualty or in-patient psychiatric facilities.

Conclusions

Nursing occupational health is exceedingly complex; some aspects are easily met, such as vaccinations, access to prophylaxis, and provision of bare minimum protective clothing. Many

others, though, are systemic workplace deficiencies that require advocacy and focus. Employers (including governments) have traditionally not paid much attention to issues beyond what is required of them legally, and it seems unlikely that this will change until nursing representatives start challenging the *status quo*.

One of the most trumpeted clichés beloved of public health policy makers, politicians and managers is that ‘nurses are the backbone of our health care system.’ Sadly, when it comes to occupational health, much more needs to be done if nurses are going to get the interventions they need to function at their best.

Useful resources

For practical advice on Post-exposure prophylaxis: Moorhouse M, et al. Guideline on the management of occupational and non-occupational exposure to the human immunodeficiency virus and recommendations for post-exposure prophylaxis: 2015 Update. *S Afr J HIV Med* 2015;16(1). <http://dx.doi.org/10.4102/sajhivmed.v16i1.39>

For an overview of the challenges facing nursing health (American): Gooloo S, et al. *Nursing Staff in Hospitals and Nursing Homes: Is It Adequate?*, National Academy Press, 1996. <http://www.nap.edu/read/5151/chapter/1>

A website with multiple links to legal and policy workplace resources: <http://www.mywage.co.za/main/decent-work/health-and-safety-at-work/health-and-safety>

An overview of nursing in South Africa: Rispel L, Bruce J. A profession in peril? Revitalising nursing in South Africa. In: Padarath A, King J, English R, eds. *South African Health Review* 2014/15. Durban: Health Systems Trust; 2015. http://www.hst.org.za/sites/default/files/KWIKSKWIZ_SAHHR_Ch9.pdf

Website for Democratic Nursing Organisation of South Africa (DENOSA): <http://www.denosa.org.za/index.php>



Overwork and nursing

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Stress and overwork are top health and safety concerns for nurses, who also report that such concerns influence their decisions to remain in the nursing profession.^[1] Nursing is known to be an extraordinarily stressful occupation.^[2,3] Unlike in other professions, stress in nursing is assumed to be present.

Workload and stress

For nurses, the word 'stress' describes a mix of unpleasant situations and unpleasant inner personal experiences.^[3] Stress may come from high workloads; staff shortages, which contribute to overwork; and a perceived lack of support from colleagues, management and hospital administration. But workload-related stress may also come from outside of the workplace, namely from the household. This often differs for women and men: women workers tend to have more

stress, both physical and mental, than male workers due to unpaid household work and care work.^[4] Care work entails unique physical, emotional and psychological demands, whether or not it is performed for pay. For women in paid care work such as nursing, the focus of this piece, stress from overwork can come from the workload in the workplace, at home, or a combination of the two.

Research on occupational stress often focuses on workplace stress alone, as if the workplace and home are distinct and unrelated.^[5] Implicit in this approach is an understanding of the workplace and home as 'separate spheres,' dividing the economy into a public sphere and a private sphere and the life of the worker into a work-life and a home-life. However, some research emphasises 'work-home conflict' in which work-based stresses

impact the worker at home or 'home-work conflict' in which home-based stresses impact the person at work.^[4,6] According to this research, individuals have experiences that connect their workplaces and their homes even though they may not perceive a conflict between the demands of paid work and unpaid work.

Consider the case of overwork as a cause of stress. Nurses tend to feel overworked, but 'overwork' is not merely a workplace-based phenomenon, particularly for women. Nurses have a heavy workload, consisting both of paid and unpaid work, and often feel fatigued, overwhelmed and stressed out as a result. Paid work includes the hours of activity for which nurses receive pay. Unpaid work consists of the hands-on work of child-, self- and eldercare, in addition to household work like cooking and cleaning. The

unpaid work that women do can be considered a 'second shift' of work.^[7]

Nurses do this unpaid work on top of the 9 or 12 hours of paid work that they do in wards and clinics. An interview-based study of 24 female professional nurses in a public hospital in Gauteng Province that divided nurses' time into sleep, paid work, unpaid work, commuting and leisure found that, on an average workday, nurses who do shift work do nearly three hours of unpaid work in the home and professional nurses in clinics who work from 7 am - 4 pm do over four hours of unpaid work.^[8] On average, the nurses spent about two hours commuting to and from the hospital per day. Therefore, on workdays, leisure time amounts to under two hours for nurses in clinics and averaged just 24 minutes for nurses on 12-hour shifts (Figure 1). It is no surprise, then, that many nurses feel that they are under constant time pressure both at work and at home, which can contribute to feelings of distress.

Time-use in hours per day^[8]

Interpreting overwork as the result of separate, if heavy, workloads at home and in paid work paints an incomplete picture. It suggests independent workloads for the same worker. Yet the

workloads are not separable: the work is connected through the worker and the care that she provides. The substance of the work that nurses do, and the hands-on nature of that work, connects nurses' lives inside their ward or clinic to their world outside. Nurses care for patients and for members of their own and other households. One nurse summarises the relationship:

'I think its a continuation actually, the home-life and my work-life. To me, it's a continuation. I'm here in the hospital dealing with the life of human beings. And at home I also care for human beings. I continue to look after the life but indirectly. It's not direct like here in the hospital. There is a connection to me, with the hospital and home.'^[9]

Caring work, paid and unpaid, can be especially strenuous in part because it places extraordinary physical, emotional and mental demands on the carer.^[6] But more fundamentally, caring work is uniquely demanding because while the legally or socially recognised claim on care for a particular person or patient may be fulfilled, the desire for care is by its nature without limit. This limitlessness may leave the carer feeling that she can never provide the quantity and quality of care that the job requires.

Because a nurse's caring work may be paid (located in the workplace) or unpaid (located at home), 'the job' here may refer to either, or both, of the jobs. In other words, the demands of care never end, which can contribute to a feeling of time pressure, stress, frustration and even anxiety or depression.

Caring work is a shared challenge for nurses

The most obvious form of unpaid care work done by the nurses who were interviewed in the Gauteng-based study is childcare. This form of care work is not limited to those nurses with young children or to single mothers; it affects nurses in a wide range of circumstances. For example, one nurse in her early 60s is supporting two children, ages 4 and 6, who belong to her daughter who passed on four years ago. The nurse is also supporting her husband, another daughter, and another grandchild. She said:

'You know, when we grow up, you have got plans. "Ok, this is what I'm going to do, if I work I'm going to do this or that." I had a daughter who was working, who was helping me here and there financially, now, she's gone. And I'm left with her two kids. And [my other daughter] is not working. I have to look after her, I have to look after her son, I have to look after myself, I have to look after my husband ... it becomes a lot too much.'^[10]

Beyond child care, and among other challenges, the demands of care work may be particularly challenging for nurses in South Africa due to HIV. Studies of health professionals have found that caring for HIV-positive patients can contribute to overwork and burnout.^[2,11] Caring for patients with HIV can place social burdens on caregivers and may take a psychological toll. Several of the nurses who were interviewed in the Gauteng-based study talked about HIV as a source of stress and overwork. However, that stress typically came from outside of the workplace, rather

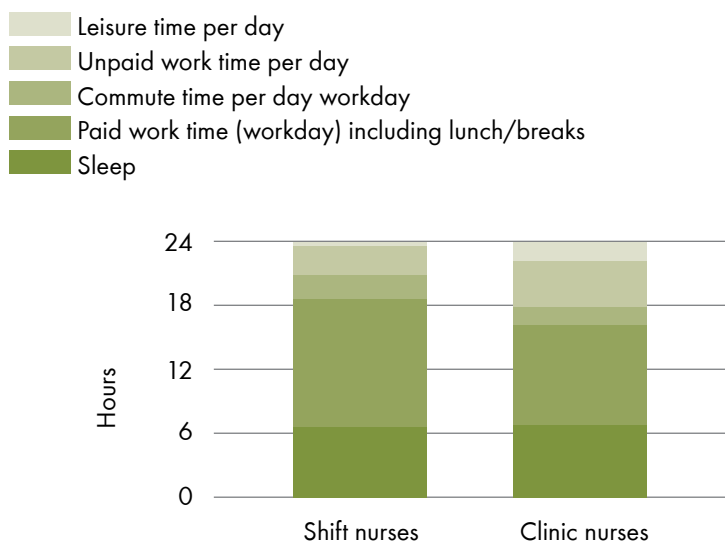


Figure 1: Time-use in hours per day.

than from patient care, but had impacts both at home and at work.

Some nurses are HIV-positive themselves and other nurses are caregivers for HIV-positive family members. Still more nurses are the caregivers for elderly relatives or for their own grandchildren because other relatives or children passed on due to HIV-related illnesses. HIV has meant a rising demand for care inside and outside of the paid work environment for nurses. Not only can HIV contribute to overwork in terms of intensity of demand for care in daily life, it can have life-long consequences and has left some nurses unable to retire, with frustrated hopes for their own futures.^[8] The demands of care work, therefore, present a multi-generational challenge for nurses.

Nurses' heavy load of caring work in the workplace and at home interact in ways that are particularly stressful given the unique demands of care work and the limitless nature of the desire for care. For healthcare workers, life outside of work is critically important for avoiding stress-related burnout. One clinical care nurse described the importance of other interests and hobbies outside of nursing and other engagements that

allowed the nurse to 'escape into a different world, where I did not have to give out or help anybody ...'^[11] But for many nurses, finding the time to replenish exhausted mental, physical and emotional resources outside of paid work may prove difficult, if not impossible. As a shared challenge for nurses that cuts across generations and the professional hierarchy, care-based overwork may provide a basis for organisational consideration of responses that would reduce overwork in the workplace.

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Do you have too much stress?

Some stress is beneficial because it stimulates engagement with work. Without it, we would be bored and may become frustrated. It is the stress that builds beyond this that is experienced as unpleasant and can provoke anxiety or have other negative impacts on well-being. Nurses may be hesitant to acknowledge distress because they feel that it is simply part of their lives at work and at home, and therefore they should put on a brave face. But internalisation of this can lead to feelings of isolation from others, both at work and at home.

Identifying stress

Stress may be difficult to notice because it may increase gradually. Personal reflection can help you identify symptoms and sources of distress, a key first step in coping with it.

Physical impacts: headaches, nausea, heart palpitations, high blood pressure, tense muscles, stomach cramps, constipation and diarrhoea.

Emotional impacts: anxiety, depression, fear, feeling trapped, hopelessness, despair, loneliness, defeated,

anger, self-doubt, indecisiveness, procrastination, or suppression of feelings.

Behavioural impacts: withdrawing into the self, verbal aggression, gripping objects tightly, losing interest in things you liked, insensitivity toward others, or destructive behaviours such as excessive drinking.

'Nurses may be hesitant to acknowledge distress because they feel that it is simply part of their lives at work.'

Coping with stress

1. Distractions: distractions such as hobbies, exercise, interactions with friends, and helping others can provide temporary relief from stress.
2. Self-care: meditation, relaxation exercises, breathing exercises and eating well may help you prepare for, and respond to stress. Further, some evidence suggests that the ways we think about stress can predict whether stress will impact us negatively. Rethinking stress as an opportunity to give and receive support may help strengthen support networks.
3. Emoting and externalising: crying, talking about stress with supportive people, or writing down feelings can help you release stress instead of keeping it inside.
4. Confronting causes of stress:
 - **Reflect:** instead of avoiding thinking about sources of stress, try to figure out what causes stress at work and at home.
 - **Communicate:** communicate with others at work and at home about sources of stress and ask for help. The things that cause stress can be difficult to talk about, but sometimes simply talking about them helps ease stress. Nurses have many shared challenges and can benefit from learning about each other's experiences.
 - **Make a stress-relief plan:** consider seeking out peer mentors or counsellors to help you reduce stress.

Who will care for the carers?

Do you have a good working relationship with your colleagues? Or do you or do others who you work with feel bullied?

One of the best resources that nurses have available to them is the expertise

and experience of their colleagues. Peer mentoring is valuable because it can help establish the supportive relationships that are sorely needed in many wards and clinics. Mentoring can help with work-based concerns but it can also help with financial difficulties, family problems including divorce, and health-related concerns.

How to help stressed out colleagues:

1. Offer to help with work if you see someone struggling with their workload.
2. Be approachable so that people feel able to ask for help if they need it.
3. Communicate with your colleagues about challenges so that you can work together for things to function more smoothly in the future.

How not to help stressed out colleagues:

1. Tease them for requiring assistance.
2. Tell them to 'cheer up' without working with them to address sources of stress.
3. Have a row rather than waiting to communicate with colleagues about challenges once an urgent matter has been resolved.

Do you have financial stress?

1. **Make a budget:** Putting together a budget can change how you feel about your finances. Being organised can improve your sense of financial well-being.
2. **Keep track of expenses:** Keeping a notebook where you record your income and your spending every day can help you stay on top of your expenses. This can ease payday stress because you will know exactly what is in your bank account and where it is going.
3. **See a financial counsellor:** If you need assistance with your finances or have questions about debt, then a financial counsellor

can provide you with information and help you make a plan.

What can management do?

1. **Make mental health resources available and easy to access:** The extraordinary stress that nurses are under can lead to anxiety and depression as well as burnout. Social workers who are available to nurses and who actively engage with nurses in their clinics and wards could help nurses talk about the challenges that they confront. They could also refer nurses to mental health professionals located in the hospital, which could make seeking help easier.
2. **Be supportive of peer mentoring:** Peer mentoring can improve the working environment. Management could put together a list of nurses who are willing to be contacted by peers who are in need of support and mentoring, and distribute the list with contact details to all nurses.
3. **Provide channels for receiving and responding to feedback:** The hierarchical organisation of the profession can make it difficult for nurses to provide feedback to management and administration. Solicited feedback could help management identify needed interventions.
4. **Schedule meetings in advance:** Last-minute meetings are experienced as a disruption in a busy day. Schedule meetings ahead of time so that clinics and wards can plan their shift when they arrive.
5. **Increase transparency when work processes change:** If nurses are required to take new notes or fill in a new form, take care to make the reasoning clear. Otherwise, already overworked nurses may interpret changes as 'make work' policies.

STOP STOCKOUTS

What is the Stop Stock Outs Project?

The Stop Stock Outs Project (SSP) is an organisation that monitors availability of essential medicines in government clinics and hospitals across South Africa. The SSP aims to assist healthcare workers in resolving stock outs and shortages of essential medicines at their facilities, enabling them to provide patients with the treatment they need.

How do you report a stock out to the SSP?



**Our hotline number is
084 855 7867**

- Send us a Please Call Me
- Send us an SMS
- Phone us or missed call us

We will then phone you back to get some more information.



**You can also email us at
report@stockouts.co.za**



What information do you need to report to the SSP?



**The name of the medicine
that is out of stock**



**The name of the clinic or
hospital where you work**

Reporting is an anonymous process and your name, if provided, will not be disclosed to anyone outside of the SSP.





HIV self-testing: Small steps, more to come

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Background

In a previous commentary, Richter *et al.* argued that the law in place at that time (2012) in South Africa 'inhibit[ed] the roll-out of accurate and well-regulated [HIV] self-testing kits, and create[d] a loophole for sale in supermarkets but not pharmacies.'^[1] It had similarly been argued that existing prohibitions and restrictions were an example of unwarranted 'AIDS exceptionalism', and a number of remedial actions had been identified.^[2] In particular, it was argued that, 'once the South African Health Products Regulatory Authority is in place, a suitable regulatory system for all diagnostic tests, including self-tests for HIV, needs to be created'.

Since 2012, there has been some movement in this regard, even though the steps may be faltering and slow. However, if anything, the demand and need for appropriate self-testing, and for a well-regulated market, has increased in intensity.

Good Pharmacy Practice – more than just guidelines on paper

Although the practice of many health professions is regulated by law, the pharmacy profession is subject to a wider range of legislative controls than many others. This entails not only the Pharmacy Act (Act 53 of 1974), but a wide range of Regulations made by the Minister of Health, in consultation

with the South African Pharmacy Council (SAPC). These cover not only the registration of pharmacists and pharmacy support personnel and their scopes of practice, but also the ownership of different types of pharmacies (manufacturing, wholesale, institutional, community, consulting) and the services that can be rendered in each type of practice. Pharmacies are the only individual health practices that are subject to a licensing provision, almost akin to what is envisaged by the certificate of need in the National Health Act (Act 61 of 2003). New pharmacies cannot be opened, or existing pharmacies moved or enlarged, without a licence from the Department of Health. Only private hospitals are

subject to a similar restriction at present. However, there is also a tertiary layer of legislation enabled by the Pharmacy Act. The SAPC is enabled to make Rules, which are then published in the Government Gazette, and are therefore binding and have the weight of law. The Rules include the acts for which professional fees may be charged and the Code of Conduct (ethical rules), but most importantly, the Good Pharmacy Practice (GPP) set of standards. The GPP is not only applicable to pharmacists and pharmacist's assistants, but also to lay owners of pharmacies, and specific portions are also applicable to holders of dispensing licences issued in terms of section 22C(1)(a) of the Medicines and Related Substances Act (Act 101 of 1965). The GPP standards for 'medicines rooms' apply to both

medical practitioners and nurses who hold dispensing licences.

In 2012, it was pointed out that the 4th edition of the GPP prevented pharmacists from either selling an HIV self-test or administering a saliva-based test in a pharmacy.^[3] Section 2.13.5.5 of the GPP stated that 'only rapid tests which use a blood sample may be performed in a pharmacy', whereas section 2.13.5.8(h) added that 'pharmacists must not sell HIV tests for patients to perform at home'. Following the publication of the commentary, submissions were made to the SAPC, requesting that the restriction be lifted.

In February 2016, the media reported that the Registrar of the SAPC indicated that the Council had decided, as long

ago as May 2015, to make the changes requested.^[4,5] In February 2015, a year before this announcement, the SAPC had indeed published two gazette notices related to the GPP. One set of documents listed changes to the GPP that were to take effect.^[6] The second set listed proposed changes to the GPP, on which comment was elicited.^[7] However, neither of these notices dealt with the question of HIV self-tests, as requested. The last mention of a possible change had been in December 2013, when a proposal to delete both the ban on tests other than those using a blood sample and the ban on selling self-tests had been published for comment.^[8] The Registrar was quoted as saying: 'Most pharmacists and the public felt that a pharmacist was better placed to deal with the sale of such tests given the sensitivity and the professionalism required in dealing with the condition'.^[4] He further explained that 'The council in October 2014 had decided not to publish the minimum standard for implementation until such time that a standard for selling of HIV tests kits had been designed', but added that: 'In May 2015, the council finally resolved that the minimum standards - which effectively removed the ban for pharmacists to sell the HIV test kits that were approved in October 2014 - were sufficient and that there was no requirement to formulate further standards for selling HIV test kits.'^[4]

Even though this change has yet to be gazetted, and so some pharmacists are



'Populations that may especially benefit from HIV self-testing include the general population and health workers in settings with a high prevalence of HIV infection, priority populations in all settings and those who frequently re-test due to ongoing risk.'

still wary of providing such tests, the decision of the SAPC has been clearly communicated. No prosecution of a pharmacist for selling an HIV self-test, in terms of the existing GPP document, would be tenable.

The regulation of *in vitro* diagnostics – unfinished business

The South African Health Products Regulatory Authority (SAHPRA) is not yet in place, despite the passage of two Amendment Acts in 2008 and 2015. However, now that the second of these Amendment Acts (Act 14 of 2015) has been assented to by the President, there is increasing pressure to complete the process. Even before SAHPRA comes into effect, it is envisaged that Regulations will be issued in terms of the Medicines and Related Substances Act to introduce an effective regulatory system for medical devices, including *in vitro* diagnostic tests such as HIV self-tests. This will allow for the identification of quality-assured sources of test kits, but also allow for specific labelling and information requirements, such as the inclusion of 'detailed but simple information on HIV testing with an emphasis on explaining the window period and the importance of confirming a positive HIV result at a clinic or hospital where appropriate HIV management could be offered.'^[2] Local labelling can also include the details of a toll-free helpline, such as the National AIDS Helpline or LifeLine. However, until those regulations are in place and enforced, caution is still warranted in relation to the provision and purchase of self-tests. Those that have regulatory approval from stringent authorities should be used preferentially.

HIV self-testing – growing need

In 2013, the World Health Organization issued a supplementary section to the 2013 consolidated guidelines on the use of antiretroviral drugs for treating

and preventing HIV infection, dealing specifically with self-testing.^[9] The supplementary section noted that, 'HIV self-testing has the potential to increase the number of people living with HIV who have access to testing, know their status, are diagnosed and initiate treatment'. It also noted that, 'Populations that may especially benefit from HIV self-testing include the general population and health workers in settings with a high prevalence of HIV infection, priority populations in all settings and those who frequently re-test due to ongoing risk'.

Recent developments in South Africa underpin the need to increase the number of HIV testing options. In November 2015, the Medicines Control Council approved the use of tenofovir/emtricitabine for pre-exposure prophylaxis of HIV (PrEP).^[10] Safe use of PrEP requires repeated testing, which is well-suited to the use of self-tests. The first key population to be offered PrEP by the public sector will be sex workers.^[11] The National Sex Worker HIV Plan envisages that specially trained peer educators will test 'sex workers, their non-commercial sex partners and potentially their clients.' Given the challenges of reaching this key population, a particular role for self-testing in this area seems both feasible and necessary.

A key challenge now is to ensure that all health professionals are aware of the use of self-tests, are knowledgeable about the accuracy of the tests on the market, are in a position to provide appropriate advice on the need for confirmatory tests in those who self-test as positive, and can connect those who need access to care and treatment to the necessary referral pathways. This is particularly important given the commitment to introducing a 'test-and-treat' policy from September 2016.^[12]

Although some of the barriers to HIV self-testing have been overcome, the

steps taken have been small, and more changes are still to come. The trajectory, nonetheless, is a positive one. HIV clinicians of all types need to stay abreast of those changes, and contribute positively to their implementation.

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Babies for bling

Are teenage girls having children to access grants?

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This is a story that is often told: a young woman from a poor family has had a baby so that she can access the child support grant. Then, instead of spending the money on her family, she dumps the baby with her mother or aunt. She uses the grant to buy trendy clothes, beauty treatments and booze. The state has provided this young mother with money to care for her child, but she is wasting it on selfish luxuries.

Among nurses and social workers, alarm about the misuse of social grants is growing. For many health and social workers, it appears that young people are increasingly using grants for income, as a substitute for formal employment. Faced with high rates of unemployment, young people are unable to convert their educational qualifications into salaried work.

Frontline health and society service providers are concerned that social grants are providing a kind of 'cop out' for these young people, who now look to state welfare, rather than educational advancement or formal employment, as their main sources of financial support.^(1,2)

As one senior nurse working in an Eastern Cape Day Hospital explained: 'Our community don't want to work ... Government pays R330 for the child support grant. A child costs more than R330, but it's the mentality.' (Anonymous senior nurse, Eastern Cape Day Hospital, 6 October 2014)

The allegation is that young women with few prospects for economic advancement are using their fertility as a means of profit. The child support grant is incentivising this reckless and

corrupt behaviour. For teenagers, this is particularly harmful. Pregnant learners drop out of school to care for their babies, and often don't return to formal education. They earn a meager 'income' from the grant, but end their formal education to care for their children.⁽³⁾ Dropping out of formal education may close down these teenagers' best chance for a brighter future. And once they have dropped out due to pregnancy, it may be difficult to return.

Nurses' and social workers' perceptions

Frontline providers, including nurses and social workers, witness this misuse of public funds, and it frustrates and angers them. Through providing services to these young women, including ante-

natal care, nurses feel that they are part of the system that allows, in fact rewards, irresponsibility. Because of the laws that protect women's rights – such as access to contraception and abortion – nurses must uphold patients' rights. But they can do little when patients appear to be violating their moral responsibilities as mothers and as citizens – neglecting their children, abusing state resources, locking their elderly families into another cycle of child care, and damaging their own futures.

The Mzantsi Wakho research study has documented nurses' accounts of the abuse of the child support grant by young women. The study, which focuses on adherence to medicines and sexual health among adolescents, is based in 170 neighbourhoods in the Eastern Cape,^(4,5) and covers 53 health care facilities, including clinics, day hospitals and hospitals.

In addition to working with adolescents and nurses, the researchers have worked closely with social workers and the families of adolescents to understand the challenges confronted by each of these groups. The study has also engaged teenagers in and around their homes, or alternative spaces such as community centres and libraries, where they are more free to express themselves than they would be in classrooms or clinics.

Between 2012 and 2015, over 1 000 hours were spent speaking to nurses in the Eastern Cape about their work with teenage patients. To date, researchers have interviewed over 1500 adolescents about their experiences of health and social services.

Workshops and focus groups have encouraged teenage participants and their caregivers to use other forms of expression, rather than words. Through a range of participatory exercises (includ-



Figure 1: The 'Dream Consultation': A participatory research activity with HIV-positive teenagers. In this exercise, teen participants in the Mzantsi Wakho study modelled their perfect clinic consultation, from the perspectives of both health care workers and patients (Eastern Cape, March 2014).

ing drawings and drama), the study has explored how teenagers use health and social services in the Eastern Cape.^[1]

In terms of the child support grant, our emerging findings revealed vast differences in what teenagers and adults believed and described. There were also powerful distinctions between what young men and young women thought about whether young women were having 'babies for bling' to profit from the child support grant.

Contrasting claims

In focus group discussions with young men, young women were blamed for abusing the welfare system and exploiting their sexual desirability. As a 23-year-old man from Mdantsane described:

'In these days teenagers at the age of 16 and 18 are getting pregnant just to

get the grant ... All they care about is having fun and nothing else ... Some of them get pregnant on purpose to get the grant money from government ... But now they use the money that was meant to feed their babies to have fun ... go to braai places and buy alcohol ... They say, "success is all about making profit", so by having babies, they are making a profit'. (Anonymous interviewee, Mdantsane, 28 July 2014)

Young women were alleged to be using sex not for subsistence or survival, but to buy luxuries and fund a reckless lifestyle. The caregivers of teenagers echoed these claims. One grandmother explained:

'The problem now with our youth is that they get out of hand ... They have many children which are going to be your responsibility as the grandmother. [The mother] will leave the kids with you and again wander the streets ... What

¹The study protocol was approved by ethics committees at participating universities, provincial departments of health and education, and participating facilities.

am I going to do with the house full of kids? ... I am the one looking after [my daughter's] kids. She takes the money and drinks it.' (Anonymous interviewee, Mdantsane, 24 December 2014)

While many adults and adolescents thought that teenage mothers were wasting the child support grant on luxuries, teenage mothers in the study disagreed. In interviews and focus groups, they described how these common claims clashed with their own thoughts and experiences. Through participatory research exercises, young mothers demonstrated how they used the child support grant to care for their babies. They explained the difficulties they faced in supporting a child on R330 per month, often in contexts of acute socio-economic deprivation.

In contrast to allegations of 'pregnancy for profit', young women described the financial and social challenges that

pregnancy and young motherhood entailed:

Interviewer: 'How is it to have a baby?'

Female participant I (age 19): 'Yho!'

Interviewer: 'It's difficult?'

Participant I: 'Yes, it's difficult.'

Interviewer: 'Why do you say it's difficult?'

Participant I: 'Because I don't have a life. It disturbs you as well. I'm supposed to be doing my matric but I'm not in school because of the baby.'

(Anonymous interviewee, Dimbaza, 19 December 2014)

The fear that girls will be 'left behind', will 'drop out' of the race for social transformation and demographic redress, that their futures are dimmer, holds powerful sway among both young men and women.

While motherhood was valued and aspired towards by teenage girls

and young women in this research, it was also balanced against other hopes for educational and professional advancement, and financial stability.⁽⁶⁾ An interview with teenage girls revealed a focus on finishing school, and a fear that pregnancy would derail advancement:

Interviewer: 'Is it right for people to fall pregnant?'

Female participant II (age 16): 'No, you must learn first.'

Interviewer: 'And then you can fall pregnant?'

Female participant II (age 16): 'Then work first and have everything so that you won't depend on anyone.'

Interviewer: 'Oh okay, so before you get pregnant what will you have?'

Female participant II: 'A house and a car first.'

Interviewer: 'What do you want to be when you grow up?'

Female participant II: 'A doctor.'



Figure 2: How do you spend your grant? Using plastic chips, an adolescent mother maps out how she spends her child support grant. Food was the biggest expenditure, followed by nappies, transport to fetch medicines at the clinic, and airtime (a nominal R10) to communicate with her baby's father (Mzantsi Wakho participatory research exercise, Eastern Cape, October 2015).

Interviewer: 'Is there anything else you have heard about pregnancy?'

Female participant III (age 17): 'Yes. Some friends of mine said it is not nice to fall pregnant when you are still young ... and you will end up raising the child alone. A child will mess up your future.' (Anonymous interviewee, Mdantsane, 22 June 2014)

Conclusions

The idea of 'dole mums' or 'welfare queens', has a global reach.⁽⁷⁾ Research in South Africa continues to question the popular idea that teenage girls are having babies to access the child support grant.⁽⁸⁻¹⁰⁾ While cases of young women using pregnancy for profit may be shocking and memorable for health and social services providers, large-scale studies indicate that this behaviour is relatively rare. Only a minority of teenage mothers, fewer than 20% in the mid-2000s, access the child support grant at all.^(10,11)

Emerging research on the health effects of social grants show that rather than promoting risky behaviours, the opposite may be true. Findings from the Mzantsi Wakho study indicate that social grants are promoting protective behaviours among adolescents, including higher rates of condom use and lower rates of teenage pregnancy, rather than promoting harmful and risky behaviours.⁽¹²⁻¹⁷⁾ Through supporting adolescents to stay in school, and by providing greater food security, social grants help to reduce the vulnerabilities that may lead to risky behaviours.

Clashing ideas about whether young women are having 'babies for bling' persist, tapping into suspicions about the abuse of freedom between genders and generations. These ideas remain popular because they resonate with broader beliefs that 'Born Frees' have not helped South Africa to reach its full democratic potential, and are using state resources for private advancement rather than social transformation.

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Infection control in HIV care

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Much has, over the last few months, been said about the emergence of superbugs in hospitals, which range from deadly new strains of TB to hospital-acquired infections. This may be attributed to the abuse of antibiotics in health care, through over-prescription of antibiotics by health care practitioners, as well as incorrect use by patients. Whatever the reason, it poses an extremely high risk for people living with HIV, as they are immunocompromised and consequently have less resistance to contracting superbugs.

Infection control in HIV care includes standard precautions that should routinely be applied in the care of all patients as well as transmission-based precautions that would be applied depending on the transmission routes of diseases. Infection-control measures are based on an understanding of how different diseases are transmitted. Standard precautions

should be applied regardless of disease or type of institution. Transmission-based precautions should be applied in specific circumstances depending on transmission routes of various diseases that are being treated. HIV is spread through blood and other body fluids, particularly seminal and vaginal fluids for which standard precautions apply, while tuberculosis (TB) is spread via an airborne route; therefore, it is essential to ensure good ventilation.

Standard precautions

Standard precautions which include the safe use of personal protective equipment (PPE) (Table 1), are based on the presumption that all patients are considered to be susceptible to contracting infections. While hand-washing has been highlighted as the single most effective procedure to prevent cross-infection, it remains the one

procedure with low compliance among health workers, averaging 39%.^[2] Health care workers tend to underestimate the importance of compliance with good hand-hygiene procedures. PPE provides barriers against possible sources of infection, but does not protect against sharps injuries, highlighting the importance of safe handling of sharps and the safe disposal of hazardous waste. Dispose of sharps immediately after use in marked sharps disposable containers, such as a heavy plastic jug. Never put used sharps on a counter for later disposal or hand sharps to another person for disposal - keep sharps containers as close as possible to providers in clinical-use areas. Do not recap a needle/syringe. Highly infectious nonsharps materials must be discarded in a leak-proof biohazard bag, tightly sealed when three-quarters full and not re-opened. All bags must be marked as biohazard. All facilities

should have a protocol for disposal of bags which should be strictly adhered to.

Proper disinfection and sterilisation of reusable equipment require meticulous attention as well. Research was conducted in 2014 on reusable eyewear worn by theatre staff before and after

were among people living with HIV.^[5] South Africa is one of the countries with the highest burdens of TB. World Health Organization (WHO) statistics estimated an incidence of 450 000 cases of active TB in 2013. This is the highest incidence in the world after India and China – and the incidence increased by 400% over the past 15

namely administrative, environmental and personal protection controls.

Administrative controls

Administrative controls require that persons with TB symptoms are promptly identified. Infectious patients should be separated from other patients and the spread of pathogens minimised by improving cough etiquette and respiratory hygiene and limiting the time patients spend in health care facilities. In terms of protecting health care workers, a package of prevention and care interventions for health workers should be provided, including HIV prevention, ART and isoniazid (INH) preventive therapy for HIV-positive health workers.

Environmental controls

Environmental controls include the use of ventilation systems or shielded ultraviolet germicidal irradiation fixtures in hospitals. Ventilation can be improved through open waiting areas and by keeping windows open at all times, allowing cross ventilation by keeping windows at opposite sides open. Fans must run as much as possible and these should be well maintained to ensure effective action. Ventilation by fans must direct flow to outside and away from the health care worker, to the patient to outside the room. Other measures to control concentration of TB droplet nuclei in the air is through use of high-efficiency particulate air (HEPA) filters, which filter out particles. This requires ongoing professional maintenance. Ultraviolet germicidal irradiation (UVGI), a method of air cleaning, can also be used – **it is not a substitute for other methods of air cleaning**, and cannot be used as the only method of TB infection control in a facility. It is best used as an additional protective method to reduce the infectivity of droplet nuclei, and is very expensive to install. Exposure for a sufficient length of time and with enough intensity or brightness is essential. Because UV light can damage human skin and the cornea, UV fittings are designed to allow UV light to shine in the upper room only, and therefore rely

Table 1. Safe use of personal protective equipment (PPE)

- Put on before contact with the patient, generally before entering the room (gown first, then mask or respirator, goggles or face shield and lastly, gloves)
- Keep gloved hands away from face
- Avoid touching or adjusting other PPE
- Remove gloves if they become torn; perform hand hygiene before donning new gloves
- Limit surfaces and items touched
- 'Contaminated' and 'clean' components of PPE:
 - Contaminated – outside front
 - Areas of PPE that have, or are likely to have, been in contact with body sites, materials or environmental surfaces where the infectious organism may reside
 - Clean – inside, outside back, ties on head and back
 - Areas of PPE that are not likely to have been in contact with the infectious organism
- Remove PPE outside room in reverse order (gloves, face shield/goggles, gown, mask). Remove and discard carefully, either at the doorway or immediately outside patient room; remove respirator outside room
- Immediately perform hand hygiene
- Use category-specific isolation in addition to standard precautions when a patient is known, or suspected, to have an infection

cleaning. A total of 94% of the reusable eyewear tested positive for cultures prior to cleaning and 74% remained positive post cleaning. The eyewear was cleaned with a germicidal wipe containing a quaternary/alcohol-based solution and 37% of the disposable eyewear tested positive for micro-organisms after cleaning.^[4]

Sharps injuries should be managed according to facility protocol, including the provision of post-exposure prophylaxis (PEP). Many practitioners avoid reporting such injuries due to the side-effects of the antiretroviral treatment (ART) that is necessary after exposure.

Transmission-based precautions

In 2014, there were 9.6 million new cases of TB globally, of which 1.2 million

years.^[6] This means that about 1% of the population of about 50 million develop active TB disease each year. Of these cases, the WHO estimates that 270 000 (60%) have both HIV and TB infection. The Department of Health indicates that 73% of TB patients are also HIV-positive.^[7]

TB is spread via an airborne route and precautions for the prevention of transmission are adapted accordingly. Adherence to TB treatment is complex, with a wide range of issues impacting treatment-taking behaviour of patients, which influences adherence to regimens. Failure to take treatment as prescribed often results in drug-resistant strains of TB (DR-TB) which are more difficult to treat. Three types of prevention strategies are applied,

on mixing of air from lower to upper room achieved by opening windows and by use of fans.

Sputum collection should be done in a safe environment – safest is outdoors. Patients should have access to a private space to cough sputum, and to running water for washing their hands afterwards. Sputum booths can provide such privacy, but should be well ventilated. The risk of severe morbidity and mortality in HIV-infected persons from DR-TB require that persons with known DR-TB receive routine care outside of normal HIV care settings.

Isolation is part of good quality care to protect other patients who are immunocompromised and health care workers in the hospital, and is recommended until the patient is no longer infectious. Isolation should be voluntary. Administrative infection control measures include initiating isolation as soon as a patient is identified as having infectious TB. This includes physical separation of patients known or suspected to have TB or DR-TB (especially smear-positive) from other patients, especially those who are immunocompromised. Patients with extensively DR-TB (XDR-TB), whether infected with HIV or not, should not be placed on general wards. Given the high mortality associated with XDR-TB, isolation is recommended until the patient is no longer infectious. All persons known or suspected to have multiple DR-TB (MDR-TB) should be given long-term sick leave until culture conversion.

The serious threat posed by XDR-TB means that limiting an individual's human rights may be necessary if a patient wilfully refuses treatment, and as a result, is a danger to the public to protect the wider public. Therefore, interference with freedom of movement when instituting quarantine or isolation for a communicable disease such as MDR-TB and XDR-TB may be necessary for the public good, and could be considered legitimate under international human rights law as well as section 36 of the Constitution of the Republic of South Africa.^[8] **This must, however, be viewed as a last resort, and justified only after**

all voluntary measures to isolate such a patient have failed.

To reduce exposure in households, homes should be adequately ventilated, particularly rooms where people with infectious TB spend considerable time (natural ventilation with open windows may be sufficient to provide adequate ventilation). Anyone who coughs should be educated on cough etiquette and respiratory hygiene, and should follow such practices at all times. Smear-positive TB patients should spend as much time as possible outdoors, sleep alone in a separate, adequately ventilated room, if possible, and spend as little time as possible in congregate settings or in public transport.

Personal protective equipment

PPE includes the correct use of face masks and particulate respirators. Respirator masks (worn by staff) protect against TB because they have tiny pores which block droplet nuclei and rely on an air-tight seal around the entire edge of the mask. Respirator masks are only effective if the correct respirator is used, they are available when needed, staff know when and how to put them on and take them off, and they are stored and kept in working order in accordance with the manufacturer's instructions. The use of respirator masks is particularly important during high-risk aerosol-producing procedures such as obtaining sputum samples, associated with a high risk of contracting TB, or caring for patients suspected of having MDR- or XDR-TB. Face masks (worn by patients) have large pores and lack an air-tight seal around the edges, and are therefore not effective for TB protection.

Conclusion

The increase in drug-resistant microorganisms and the increasing scarcity of new antimicrobial drugs in health care compel us to relook at the basic practices of infection prevention and control. The WHO aims to strengthen national and international capacity and improve practice through behaviour change to achieve safe, high quality care with its new approach: 'Clean

Care is Safer Care'.^[9] The main focus of this approach is to promote good hand hygiene, the least costly of measures to improve infection prevention and control. This requires regular reinforcement of good practice through education programmes. The 2009 WHO report found that hand hygiene practices should be multimodal, and structurally and culturally tailored to improve compliance with hand hygiene.^[10]

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Occupational exposure to HIV

Post-exposure guideline update

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Introduction

Post-exposure prevention or prophylaxis (PEP) is any treatment started immediately or very soon after a person is exposed to a disease-causing organism in order to prevent infection. In the case of HIV, it means that a person has to take short-term antiretroviral (ARV) drugs to reduce the likelihood of HIV infection. ARV drugs have been used since the 1990s to manage occupational exposure of health workers to HIV.^[1] The risk of acquiring HIV after an occupational exposure is 3 in 1 000 cases or 0.3%.^[2] Evidence suggests that ARV drugs reduce the risk of acquiring HIV infection post exposure and are cost-effective. PEP should be initiated as soon as possible after exposure to HIV. Although there is no direct evidence to support the use of multidrug ARV regimens following occupational exposure to HIV, the success of combination therapies in

treating HIV-infected individuals suggests that a combination of ARV drugs should be used for PEP.^[3]

Within the health sector, PEP should be provided as part of a universal infection-prevention package to reduce the risk of infection of staff members during the course of their work. Current post-exposure guidelines for HIV have extended the provision of ARV drugs to include non-occupational exposure, such as unprotected sexual intercourse and following sexual assault.^[4] For the purpose of this guideline update, the focus will be on PEP for occupational exposure.

A recent study on the knowledge and uptake of occupational PEP among nurses caring for people living with HIV in Limpopo Province found that approximately 40% of nurses did not know what PEP is. Of the few nurses that sought PEP (29%), more than

half (54%) did not receive PEP when they needed it.^[5] Scale-up of PEP services in health care settings and training of nurses on PEP guidelines is therefore urgently needed.

Standard of care for individuals exposed to HIV

When someone is exposed to HIV, they should be assessed by a trained health care worker.^[1] This assessment should include how and where the person was exposed, as well as the examination and initial treatment of the wound where necessary. Immediate treatment includes cleaning the exposed area with non-caustic soap and water and encouraging bleeding from the wound or irrigating/rinsing the mouth or eye with water.^[4]

The exposed health worker should be offered counselling, and consent should

Table 1: Baseline bloods for PEP

Laboratory test	Source	Exposed person
HIV	Rapid + 4th generation ELISA	Rapid + 4th generation ELISA
Hepatitis B (HBV)	HBsAg (can be omitted of exposed immune)	HBsAb
Hepatitis C (HCV)	HCV Ab (only if high risk or source unknown)	HCV Ab (if source positive)
Syphilis	RPR/TP Ab	RPR/TP Ab (if source positive)
Creatinine (eGFR)	-	If TDF part of PEP
Full blood count (FBC)	-	If AZT part of PEP

be obtained for HIV testing. Hepatitis B (HBV) testing should be done if immunity is not known. Syphilis testing should be done if the source tests positive. Similarly hepatitis C (HCV) testing should be done if the source patient is assessed to be at high risk and tests positive. Creatinine (eGFR) or a full blood count is done depending on the PEP regimen.^[1,4]

The source should be tested for HIV (rapid and 4th-generation serial enzyme-linked immunosorbent assay (ELISA)), hepatitis

B (HBsAg) and syphilis (RPR/TP Ab) with their voluntary consent. Comprehensive and confidential pre-test counselling should be offered.^[2] Hepatitis C serology (HCV Ab) is only advised if the source is an intravenous drug user, within the population of men who have sex with men (MSM), a haemophiliac, from a high hepatitis C prevalence setting, or where the source is unknown (Table 1).^[4] Where the status of the source is unknown or if they refuse testing, it is assumed that they are HIV-positive.

If a patient is known HIV-positive on ARV drugs, a VL should be taken. If the VL is detectable or the patient is known to be failing ART, the case should be discussed with an expert HIV clinician. This should, however, not delay initiation of PEP. If the source is virologically suppressed, PEP should still be offered. An extra blood sample (unclotted EDTA) of the source patient should be stored in case further viral testing is needed.^[2]

Before prescribing PEP, the person should be informed of the risks, possible side-effects, the management thereof, and the importance of adherence to treatment. They should also be advised that PEP is not 100% effective in preventing HIV seroconversion.^[3] Counselling and support is very important since possible exposure can create immense anxiety.^[4] The care pathway is depicted in Figure 1.

Eligibility assessment

PEP should be offered, and initiated as early as possible, to all individuals with exposure that has the potential for HIV transmission, and ideally within 72 hours.^[1] PEP is not indicated if a person is already infected with HIV. Whenever possible, the source should be tested for HIV. However, in some settings with high HIV prevalence or where the source is known to be at high risk for HIV infection, all individuals exposed should be considered for PEP without risk assessment according to the standard pre- and post-test counselling procedures. In the case

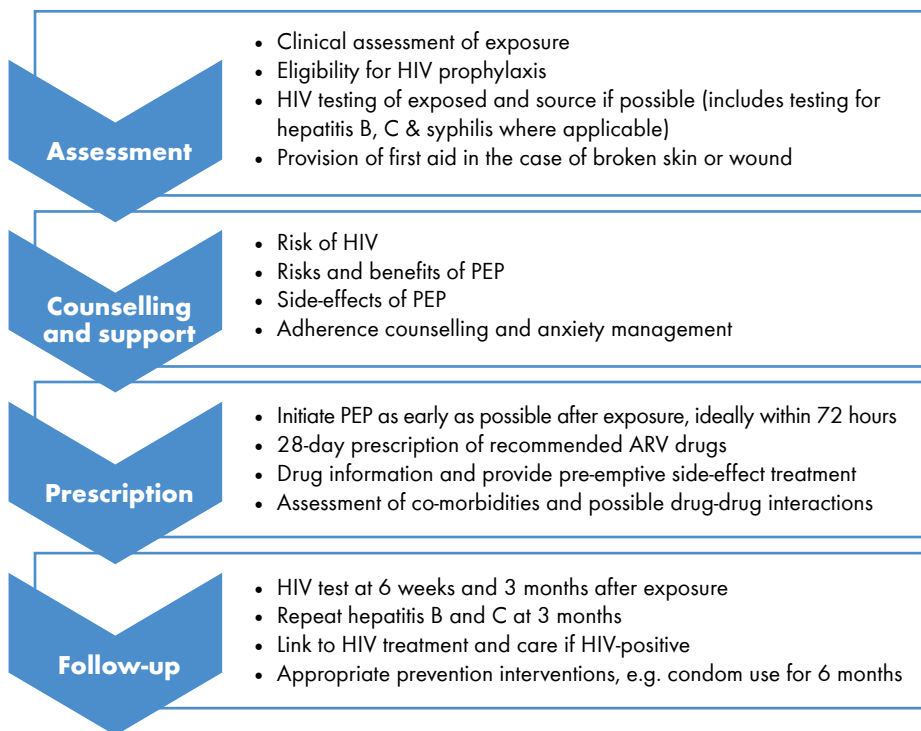


Figure 1: Care pathway for persons exposed to HIV. (Source: World Health Organization. Supplementary section to the 2013 WHO consolidated guidelines on the use of ARV drugs for treating and preventing HIV infection, Chapter 5 - Clinical guidelines across the continuum of care: HIV diagnosis and ARV drugs for HIV prevention.)

Table 2: Exposures that warrants PEP

Provide PEP for:

- Parenteral or mucous membrane exposure: splashes to the eye, nose or oral cavity
- Bodily fluids exposure: blood, blood-stained saliva, breastmilk, genital secretions and cerebrospinal, amniotic, rectal, peritoneal, synovial, pericardial or pleural fluids

Do not provide PEP:

- When the exposed individual is already HIV-positive
- When the source is established to be HIV-negative (with HIV ELISA and window period excluded)
- From exposure to bodily fluids that do not pose a significant risk: tears, non-blood-stained saliva, vomitus, urine, faeces and perspiration.

where this cannot be done immediately, prescription of PEP should not be delayed.^[2] If the source is thereafter established to be HIV-negative, PEP can be discontinued.^[1] With very high-risk exposures, initiation of treatment can be done beyond 72 hours, but not beyond seven days.^[2] Table 2 provides a list of exposures that warrant PEP.

PEP prescription

Most international guidelines advise three ARV drugs for 28 days (four weeks) for both low- and high-risk exposures.^[4] This simplifies prescribing, and the addition of a third drug (e.g. a protease inhibitor) is warranted by possible ARV drug resistance in the source.^[1] However, additional ARVs may increase the potential side-effect and adherence burden. Risk of adverse effects and toxicities must be weighed against the benefit of providing ARV drugs.^[4]

A systematic review published in 2015 found that current evidence supports co-formulated tenofovir (TDF) and lamivudine (3TC)/emtricitabine (FTC) as the preferred backbone drugs for PEP. The choice of a third drug depends on the setting and for resource-limited settings, lopinavir/ritonavir (LPV/r) is a reasonable choice, but this may change if drugs with less potential for drug-drug interactions become available.^[6]

The Southern African HIV Clinicians Society (SAHIVSoc) recommends

using TDF and 3TC/FTC as the PEP backbone and raltegravir (RAL), a protease inhibitor, as the third drug, except in pregnant women, where boosted atazanavir is the preferred third drug. Atazanavir (ATV/r), LPV/r, darunavir (DRV/r) or efavirenz (EFV) are recommended alternatives where RAL is not available or cannot be used. This regimen is tolerable, has high potency, is convenient and has minimal drug interactions.^[4] The World Health Organization (WHO) recommends the use of LPV/r or ATV/r as the third drug in PEP, as they are currently used in antiretroviral therapy (ART) programmes and are widely available in low- and middle-income countries.^[1] RAL and DRV/r are currently costly and may not be available in all settings. The South African Standard Treatment Guidelines recommend TDF/AZT and 3TC/FTC as the backbone, and ATV/r or LPV/r as the third drug.^[2]

Table 3 indicates the recommended ARV drugs and doses. If the listed drugs are not readily available, any ARV drug combination that is readily available can be used for the first dose, but the person must be discharged with a full month's supply of the recommended ARVs.^[1] A systematic review found that outcomes were better when participants were offered a full 28-day course of PEP. If PEP starter packs are provided, which consist of a three-day supply of medication, some people do not return for subsequent appointments and therefore never receive the full course.^[7]

If TDF is prescribed, an eGFR is needed to screen for any renal insufficiency. The eGFR results should be reviewed after two weeks. TDF is usually avoided in patients on ART with renal failure or an eGFR <50 mL/min. AZT-containing PEP regimens are associated with significant side-effects, whereas stavudine (d4T) is well tolerated for short-term administration; in patients where TDF cannot be used, the SAHIVSoc recommends that d4T should be given preferably to AZT. Nevirapine (NVP) and abacavir (ABC) should never be used for PEP owing to their potentially severe side-effects.^[2] EFV is associated with early nervous system and psychiatric side-effects and according to the SAHIVSoc guidelines, should not be used in PEP since exposed individuals may already have high levels of anxiety.^[4]

For ARV drugs to be effective, they must be taken as soon as possible after the exposure and require high levels of adherence. A systematic review found that only 56.6% of people considered eligible for PEP completed the full standard 28-day course, indicating poor adherence.^[8] Efforts should therefore be made to support adherence, identify and address potential adherence barriers.

Many health care workers stop taking PEP due to side-effects. Side-effects can be treated. Diarrhoea can be treated with loperamide and nausea and vomiting with metoclopramide.

Table 3: ARV drugs and doses for PEP

- TDF 300 mg daily + 3TC 300 mg (OR FTC 200 mg) daily is recommended as the preferred backbone regimen for HIV PEP for adults and adolescents. Fixed-dose combinations (FDCs) are preferred where possible.
 - **WHO guidelines:** LPV/r (800/400 mg daily OR 400/200 mg twice daily) or ATV/r is recommended as the preferred third drug for HIV PEP for adults and adolescents.
 - **Southern African HIV Clinicians Society guidelines:** The preferred third drug is raltegravir (RAL) 400 mg twice daily. Owing to a lack of safety data regarding the use of RAL in pregnancy, atazanavir/ritonavir (ATV/r) 300/100 mg twice daily is the preferred third drug in pregnancy.
 - Alternative third drugs include ATV/r, LPV/r, DRV/r or EFV.
 - **Standard Treatment Guidelines of South Africa:** (TDF 300 mg daily OR AZT 300 mg 12-hourly) + (FTC 200 mg daily OR 3TC 150 mg 12-hourly) + (ATV/r 300/100 mg daily OR LPV/r 200/50 mg 12-hourly)
- *TDF – tenofovir; 3TC – lamivudine; FTC – emtricitabine; EFV – efavirenz; LPV/r – lopinavir/ritonavir; ATV/r – atazanavir/ritonavir; RAL – raltegravir; DRV/r – darunavir/ritonavir

Management of possible infection with other conditions

There is a high risk of HBV and HCV transmission in cases of exposure if the source is positive. HBV vaccination should be considered and offered if appropriate. Hepatitis B immunoglobulin should be considered for unvaccinated or partly vaccinated persons.^[1] If the source is syphilis-positive, then the health worker should be treated as per protocols for tertiary syphilis. If the exposed health worker is HBV- or HCV-positive, then they should be referred/discussed with a doctor or specialist.

Follow-up care

Follow-up appointments should be scheduled for repeat HIV testing at six weeks and three months and must be actively pursued (Table 4). HIV testing at 6 or 12 months is not necessary since current

ELISA tests (4th generation) have reduced the window period considerably.^[4]

Individuals should be encouraged to schedule appointments if they experience any side-effects or problems before their follow-up appointment. Exposed health care workers should be informed that, if they are infected, there is a risk of infecting their own sexual partners. Counselling should therefore include a discussion of methods to reduce this risk of possible HIV transmission.^[2] Individuals should use condoms and avoid blood donations in the first six months following exposure.^[1]

Reporting and prevention

In high HIV burden health care settings such as South Africa, health care workers may be exposed to HIV in other non-occupational ways. In addition, they may have more than one incident

of occupational HIV exposure. Most exposures are, however, avoidable and should be investigated in order to improve infection control.^[4] The frequency of exposure may be under-reported and reporting of incidents should be encouraged.

Primary prevention includes adherence to standard precautions: safe injection practices, using safety equipment for blood-taking, wearing gloves and protective eyewear when applicable, and disposing of sharps in the correct manner. Sharps containers should be readily available and containers which are three-quarters full should be sealed and removed as quickly as possible. All health workers should receive HBV and HCV vaccination.^[1,4]

Figure 2 provides a summary of the key steps to follow when you have had a possible occupational exposure to HIV.

Table 4: Follow-up bloods for PEP

Laboratory test	2 weeks	6 weeks	3 months [#]
HIV	-	4th-generation ELISA	4th-generation ELISA
Hepatitis B (HBV)	-		HBsAg*
Hepatitis C (HCV)	-	HCV PCR (if source positive)	-
Syphilis	-	-	RPR TP Ab (if source positive)
Creatinine (eGFR)	If TDF part of PEP	-	-
Full blood count (FBC)	If TDF part of PEP	-	-

[#]Standard Treatment Guidelines recommend 4 months; *Not required in Standard Treatment Guidelines^[2]

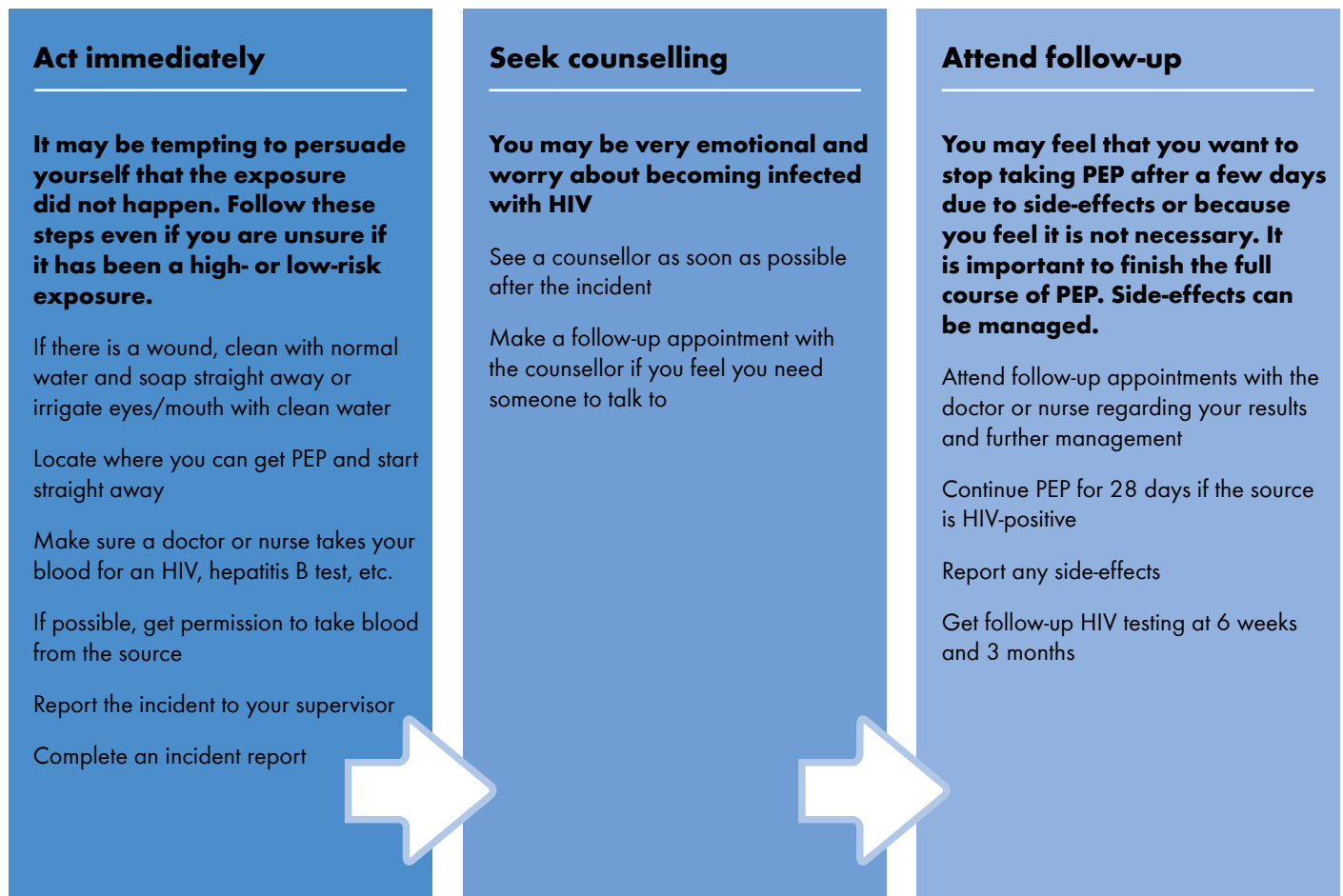


Figure 2: Key steps to follow when you have had a possible occupational exposure to HIV.

Conclusion

HIV infection through occupational exposure is preventable. Primary prevention of exposure is the most important and should be done by ensuring the availability of, and adherence to, standard precautions for infection prevention. Health care workers should familiarise themselves with the PEP protocols in their facilities and the availability of ARV drugs for PEP is critical. Should an incident occur, health care workers should also receive prompt assessment, initiation of PEP and continuous counselling and support in order to assist them to adhere to the full PEP course.

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Tuberculosis infection prevention and control considerations for paediatric clinical settings

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South Africa continues to have one of the highest burdens of tuberculosis (TB) globally, with an estimated 850 incident cases per 100 000 population in 2014.^[1] Health care-associated, or nosocomial, transmission of TB is an important way TB is spread, and poses a risk to other patients, their families/caregivers and to health care workers (HCWs). This is particularly important for HCWs in high-

burden settings, who have consistently been shown to have an increased risk of TB.^[2] In data from KwaZulu-Natal, HCWs had a two-fold higher risk of TB relative to the general population.^[3] The risk posed by multidrug-resistant (MDR)-TB (defined as disease caused by *Mycobacterium tuberculosis* resistant to both rifampicin and isoniazid), and extensively drug-resistant (XDR)-TB (defined as MDR-

TB with additional resistance to both an injectable second-line agent and a fluoroquinolone) is even more concerning, given the associated higher morbidity and mortality, the prolonged treatment duration and the higher risk of toxicity. Nosocomial transmission of MDR- and XDR-TB to hospitalised patients has been well documented, and may be responsible for a substantial proportion of new drug-

resistant TB cases.^[4,8] Transmission of drug-resistant TB in health care settings also puts HCWs at considerable risk. A study from KwaZulu-Natal reported a 5.5-fold increased incidence rate of MDR-TB hospital admission and 6.7-fold increased incidence rate of XDR-TB hospital admission for HCWs relative to non-HCWs.^[9]

Although accurate estimates are lacking, children are expected to represent approximately 10 - 15% of the global burden of disease from TB,^[10] and in 2014 10% of notified cases from South Africa were in children 0 - 14 years of age.^[11] The most recent report from the World Health Organization (WHO) estimates that in 2014 there were 1 000 000 TB cases and 140 000 TB deaths in HIV-uninfected children globally.^[11] MDR- and XDR-TB are increasingly being recognised in children. In enhanced hospital-based surveillance at Tygerberg Hospital in the Western Cape from 2003 to 2011, 5.4 - 8.9% of children with culture-confirmed TB had MDR-TB.^[11]

'[e]xisting TB infection prevention and control guidelines are geared toward adults and rarely consider children specifically. This may lead to confusion among health care workers ...'

There are clearly a large number of children with TB interacting with health care facilities in South Africa every year, and HCWs must consider how to handle these children from a TB infection prevention and control (IPC) perspective. However, existing TB IPC guidelines are geared toward adults and rarely consider children specifically. This may lead to confusion among HCWs, and inconsistent approaches to TB IPC in paediatric settings, ultimately putting HCWs at risk. Indeed, in at least one study of TB in HCWs, work in a paediatric ward was associated with a 1.89-fold increased risk of TB, which the authors postulated was related to the perceived low risk and

lack of appropriate TB IPC strategies in the paediatric wards.^[3]

There are a number of key issues that should be considered by those responsible for TB IPC in paediatric clinical settings, including HCWs.

General TB infection prevention and control measures

Effective implementation of general TB IPC measures is the most important consideration. Infection-control practices that reduce the risk of TB infection in health care settings fall into three broad categories: administrative controls, environmental controls and personal protective equipment.^[12,13] Administrative controls include education of patients on cough hygiene or etiquette, cough screening with separation of coughers from non-coughers, and prioritising coughers to be seen first.^[12] Environmental controls include creating well-ventilated waiting areas and consultation rooms, the use of fans and open windows for ventilation, and the use of negative pressure ventilation and ultraviolet germicidal irradiation (UVGI).^[12] Personal risk reduction includes the appropriate use of N95 respirators by staff and training of health care workers on

infection-control practices.^[12] Guidelines have been published by a number of agencies, including the US Centers for Disease Control (CDC)^[14] and the WHO.^[13]

Despite the known risk for the spread of TB and the demonstrated efficacy of IPC measures to limit nosocomial transmission,^[15-17] implementation of TB IPC in health care settings needs much improvement.^[18,19] Studies have reported poor to moderate implementation of infection-control practices in South Africa^[20] and other sub-Saharan African countries.^[21] A recent evaluation of knowledge, attitudes and practices in 24 MDR-/XDR-TB facilities across South Africa noted poor infection-control practices.^[22] We are not aware of any published reports of TB IPC practices specifically in paediatric settings in resource-limited contexts. Effective and consistent implementation of recommended TB IPC measures would likely have the effect of reducing transmission to children from infectious adult TB cases in clinical areas where children and adults mix, such as out-patient departments or TB clinics, and would reduce transmission from children with TB in the case that they are infectious.



Are children with TB infectious?

There remains some confusion among HCWs about whether children with TB are infectious. Children with TB are, in general, less infectious than adults, due to both the nature of TB in children, which is usually paucibacillary and rarely cavitary, and the nature of cough in children which is rarely productive or forceful enough to aerosolise infectious particles, especially in young children.^[23] This may explain in part why less attention has been given to TB transmission in paediatric health care settings.^[3] However, despite the lower risk of infectivity, TB transmission from children is possible and has been clearly documented.^[23-25] In a notable case in the low prevalence setting of the US, which has a low background rate of previous TB infection, 20% of the contacts of a 9-year-old child with sputum smear-positive TB and cavitary disease were tuberculin skin test (TST)-positive.^[26] Nosocomial transmission from young children with miliary TB has also been described.^[27,28] The risk appears to be greatest in older adolescents and children who present with cavities or otherwise extensive disease with a high-organism burden.^[23] In an evaluation of adolescents aged 10 - 18 years with TB, risk factors for smear-positivity were chronic cough >4 weeks, lower lobe involvement and pulmonary cavitations.^[29] Although children with TB are in general less infectious than adults, this cannot be assumed, and the safest approach would be to follow general TB IPC measures for children with TB.

Accompanying adult caregivers of children being evaluated or treated for TB

Probably a more important risk for transmission in paediatric settings is undiagnosed, untreated, or inappropriately treated TB in the adult caregivers of the children with TB.^[23,30,31] In two series from a children's hospital in the US, 15 - 17% of the adults accompanying children with TB had undiagnosed TB, including some with cavitary disease.^[32,33] The authors highlighted the importance of screening



all adult caregivers of hospitalised children admitted with suspected TB.^[32,33] In a study from Cape Town, 10% of the mothers of children with probable and confirmed TB had previously undiagnosed TB detected by routine screening chest X-ray.^[34] It has been suggested that the family unit rather than just the child should be the focus of infection-control assessments.^[23] Hospital wards and clinics may not be aware of the risk posed by adults accompanying children being investigated or treated for TB, as these adults may not be 'patients' at these facilities. However, ensuring these adults are specifically targeted for TB IPC activities, such as cough screening and separation of coughers, may reduce the risk. This is also an opportunity for active case finding, largely missed currently. Formal guidance for paediatric clinical settings could help reduce these missed opportunities. HCWs in paediatric settings should be aware of these risks and should actively screen such adult caregivers.

'Hospital wards and clinics may not be aware of the risk posed by adults accompanying children being investigated or treated for TB ...'

Summary

There is a high burden of TB in children in South Africa and similar settings, and HCWs in paediatric clinical settings will be regularly interacting with these children and their families. Although poorly described, there is a real risk of transmission of TB in paediatric settings. Work to better characterise that risk and specific guidance for TB IPC for paediatric wards and clinics are needed. Until then, HCWs caring for children should be aware of these potential risks, particularly that posed by children's adult caregivers with undiagnosed TB, and renew their efforts to implement appropriate TB IPC activities.

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The Medicines Information Centre (MIC) situated within the Division of Clinical Pharmacology, Department of Medicine at the University of Cape Town is the largest and only clinically-based medicine information centre in South Africa.

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The toll-free national HIV & TB health care worker hotline provides information on queries relating to:

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- Post exposure prophylaxis: health care workers and sexual assault victims
- Management of HIV in pregnancy, and prevention of mother-to-child transmission
- Antiretroviral Therapy
 - When to initiate
 - Treatment selection
 - Recommendations for laboratory and clinical monitoring
 - How to interpret and respond to laboratory results
 - Management of adverse events
- Drug interactions
- Treatment and prophylaxis of opportunistic infections

- Drug availability
- Adherence support
- Management of tuberculosis and its problems

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**MEDICINES
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'Small deeds done are better than great deeds planned'

– Peter Marshall

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South Africa has the largest number of people living with HIV in the world and the highest number of new infections worldwide.^[1] The effort required to effectively manage and plan for such a large-scale burden of disease can never be over-estimated. The South African National Department of Health (NDoH) has, under the leadership of Dr Aaron Motsoaledi, consistently put forth gallant efforts to address this huge national burden by adopting sound policy based on the latest evidence and by developing robust national guidelines to find people infected with HIV, treat them once eligible and provide for the appropriate management of all those infected with HIV. **The ultimate goal, therefore, of ART initiation is viral load (VL) suppression,** which enables a person infected with HIV to live a healthier life for longer.

VL completion (VLC) and VL suppression (VLS) are key indicators measured by the District Health Information System (DHIS) that measures the success of treatment and adherence efforts. However, **despite the absolute importance of these indicators, primary health care clinics are struggling to create efficient and effective processes to measure the provision, monitoring and recording of VLC and VLS.** This article highlights the complex, multifaceted factors that contribute to the challenge of attaining VLC and VLS, and provides some practical suggestions ('small deeds') of how this has been addressed in a number of facilities in Ekurhuleni using quality improvement (QI) methodology.

Background

In June 2015, the Ekurhuleni East sub-district partnered with the Aurum Institute to improve the VLC rate from 22% to 70% in nine months using QI methodology. A multidisciplinary improvement task team was set up consisting of DoH's Manager Nursing Services, HAST co-ordinators, Clinic head and Data capturer; and Aurum's Area Manager, QI Coach, Clinical Mentor, Senior Data Monitor and Data Monitor.

The learning collaborative was intended to promote peer learning through the sharing of ideas and challenges, but also to promote joint problem-solving. Ten clinics participated in this process. The first step was a root cause

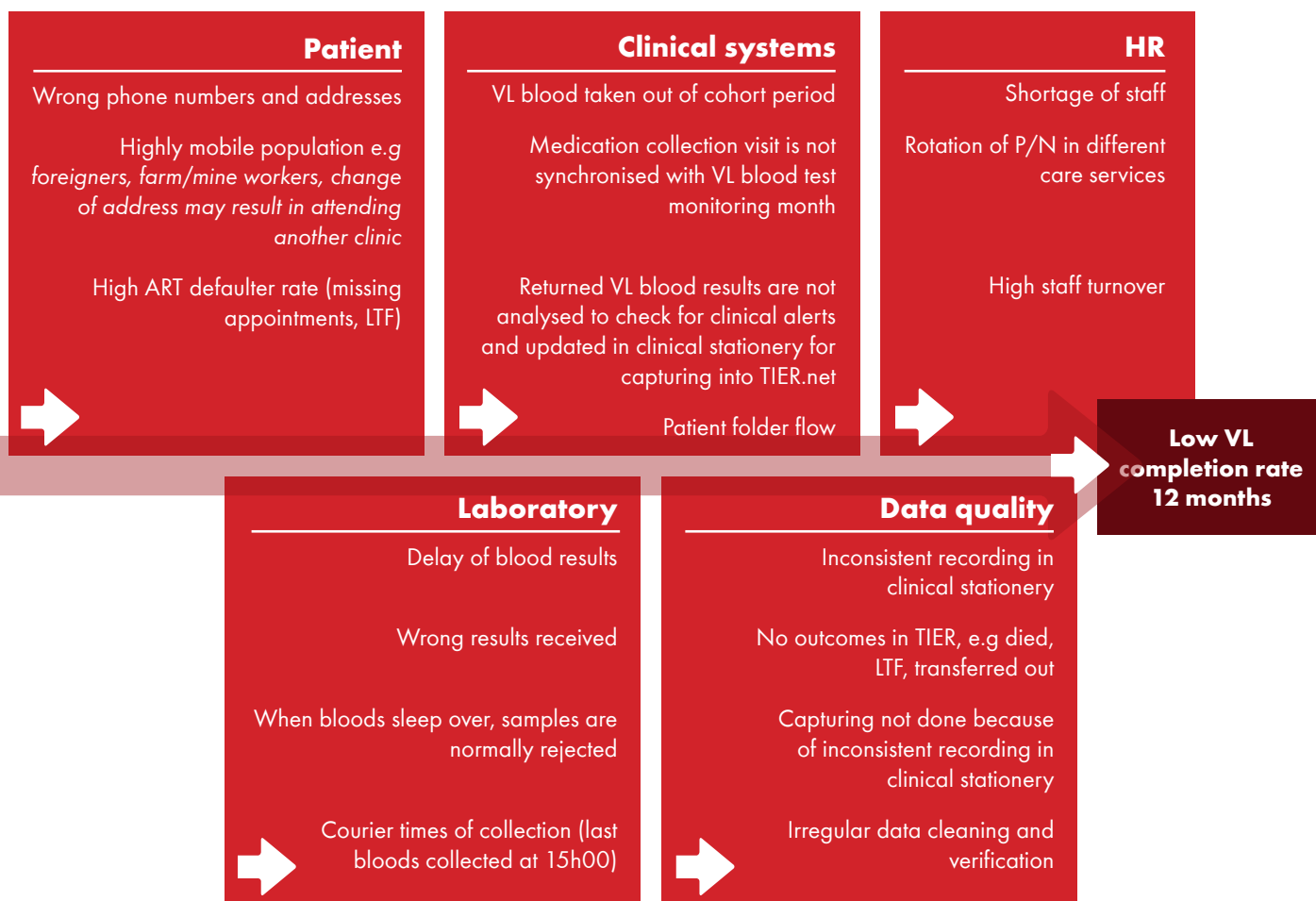


Figure 1: Fishbone diagram describing findings from the root cause analysis process.

analysis (RCA) designed to achieve a more comprehensive understanding of why clinics were obtaining low VL completion and suppression rates. This process illuminated many of the challenges faced by the clinics (Figure 1). The clinics were then able to develop and test change ideas using Plan-Do-Study- Act cycles to measure the impact of ideas on the performance of VLC VLS rates. The QI team supported the improvement work through follow-up supportive site visits and quarterly peer-review meetings ,which enabled sharing and collaboration.

This article expands on some of the problems experienced and addressed during this collaborative process, but is in no way a complete analysis of the factors contributing to this enormous challenge. We will also describe some of the change ideas that were tested

and provide results of their cumulative impact. As VLC and VLS are such complex, multifaceted problems, the reader should note that **there is no one solution that will miraculously improve performance to 100%. Improvement requires small yet consistent and continuous efforts to address the many root causes of the problem.**

1. Data management

Knowing how a rate is calculated is essential for all clinicians to be able to truly reflect and analyse their performance. According to the DHIS, the VLS rate appeared to be performing well at more than 80%; however, the VLC rate was performing poorly at 35%. As **the one impacts on the other**, it therefore required further analysis. This revealed that the

VLS rate was calculated using VLs done as the denominator - **this is an incorrect depiction of performance as it excludes all those that were eligible but not done.** In using VLs done versus VLs due as the denominator, the 'good performance' recorded distorts what actually should be done.

Indicator	
VL completion rate	Numerator - VLs done
	Denominator - VLs due
Indicator	
VL suppression rate	Numerator - VLs suppressed
	Denominator - VLs due

Example of how to calculate the VLS rate:

- Patients total remaining in care at 12 months = 100
- VL tests done at 12 months = 30
- Virally suppressed = 20

Incorrectly using VL tests done as the denominator inflates performance to portray a 67% suppression rate.

VL suppression rate	20 (# virally suppressed)	✗ = 67%
	30 (# VLs due)	

However, using the correct denominator of VLs due, more accurately reveals a 20% suppression rate.

VL suppression rate	20 (# virally suppressed)	✓ = 20%
	100 (# VLs due)	

2. Patient flow

The quote by Paul Batalden, 'Every system is perfectly designed to get the results it gets', teaches us: (i) that we often experience problems because of the way we

do things; and (ii) the way we do things can change and as a result, can also change the outcomes. Optimising patient flow in the clinics for ART patients that are due for a VL test was identified as one of the critical areas to improve VLC. **The process has to be designed with the patient in mind and therefore be acceptable to them.** During the RCA process, most clinics had not designed their systems that enabled the identification of patients due for VLs. Secondly, patients who were identified experienced lengthy delays, which may have resulted in patients skipping clinic visits or leaving the clinic early to avoid yet another queue.

Clinics therefore created a reminder system to **flag patients** who were due for a VL. Furthermore, most clinics created a **fast queue** process for patients who come to the clinic purely for their VL test. They were seen by a **clinician dedicated** to taking bloods for VLs and dispensing medication to patients expected for VL tests. Below is a process map indicating the old and new process implemented.

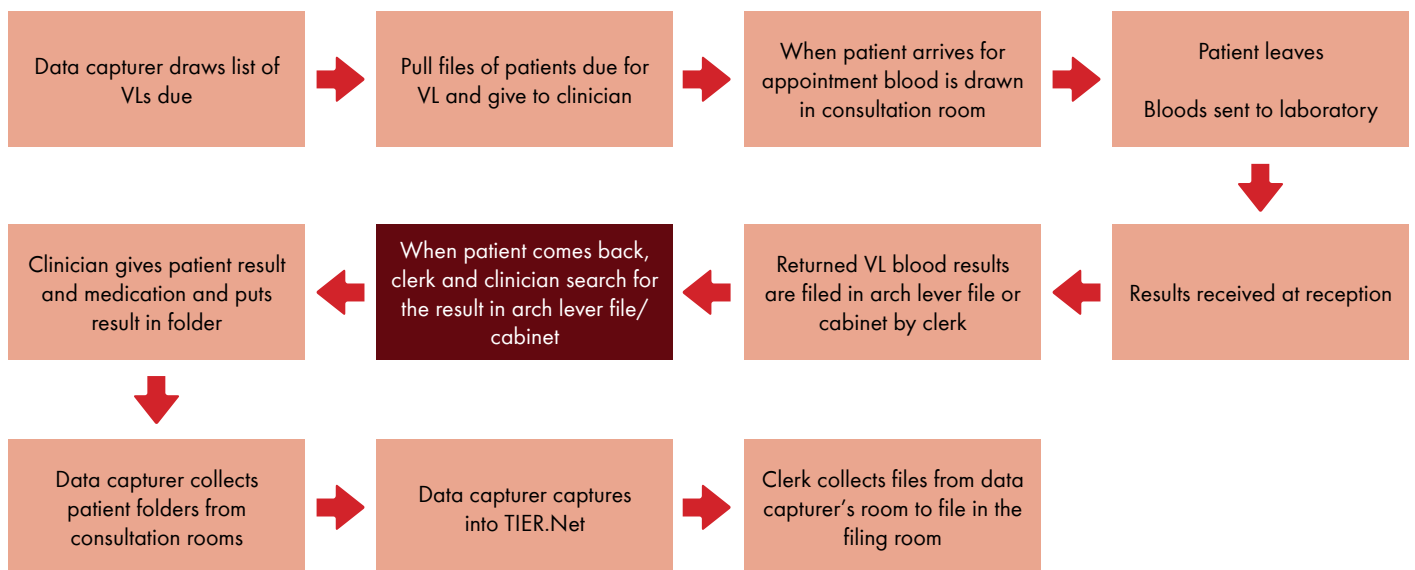


Figure 2: Old process.

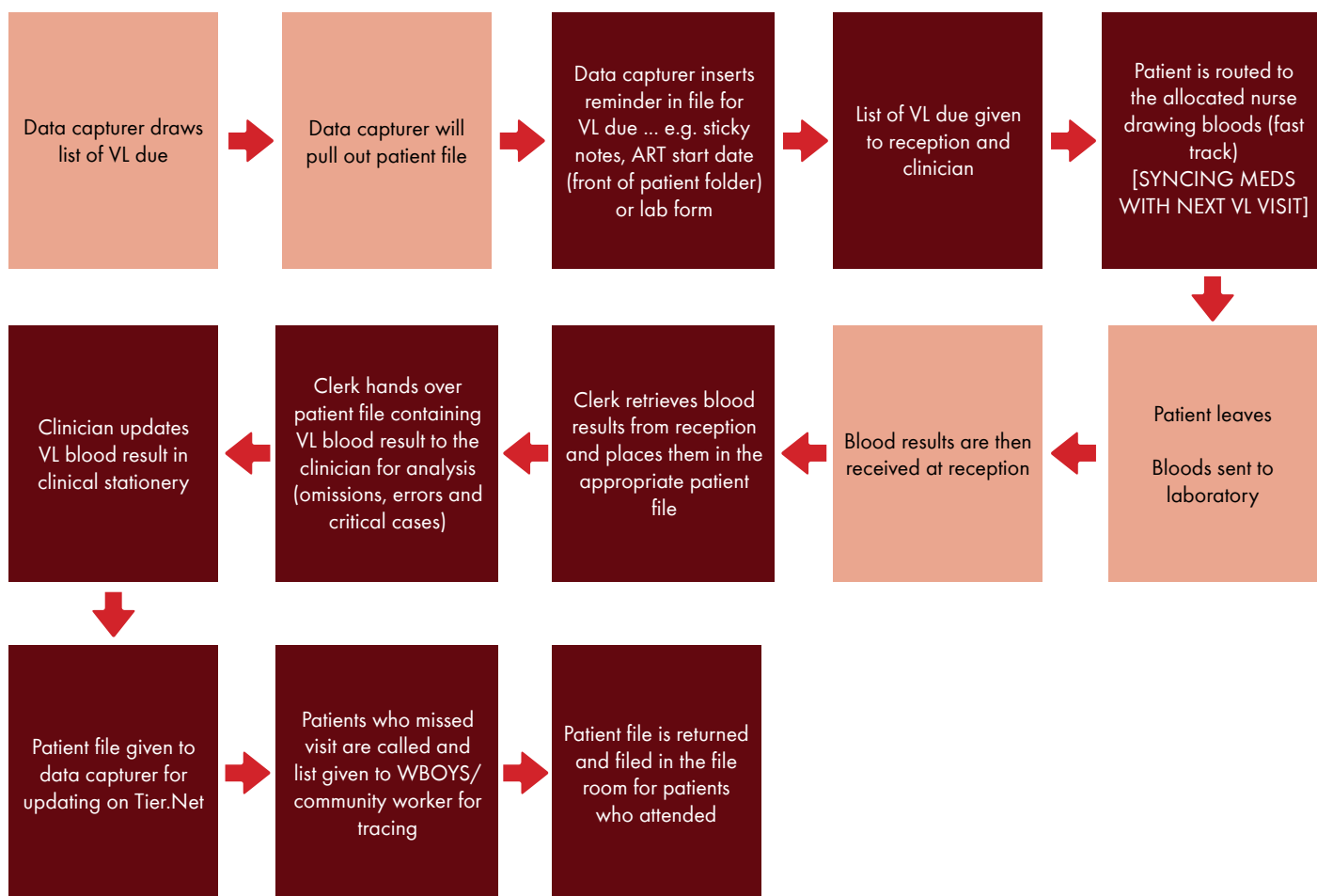


Figure 3: New process. (WBOTs = ward-based outreach teams.)

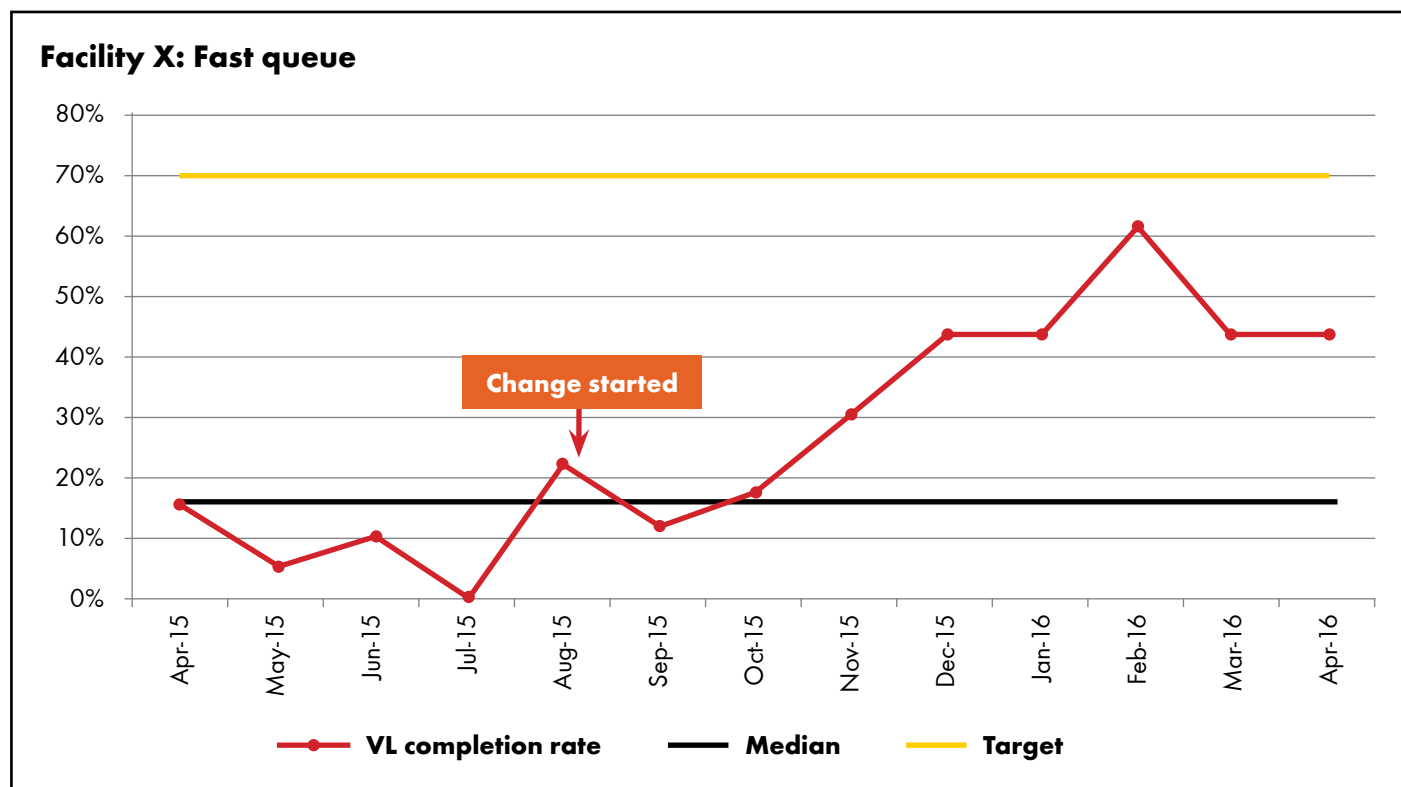


Figure 4: Results from a facility that implemented the fast queue change idea.

3. Results management

For a VL blood test to be counted as done, the result has to be recorded in the correct source document – the patient folder and electronic TIER.Net system. Therefore, a well thought-out process of how a result is received, clinically interpreted, recorded in the clinical stationery and captured into TIER.Net had to be developed. Deviation from the process meant some VLs done and suppressed would not be counted toward the clinic's performance, and would therefore give an inaccurate account of work done.

To address this, most clinic managers ensured that, on a daily basis, **a clinician was allocated to receive** the results from the clerks, **interpret** the individual results, **record** them in the patient file and **return files** to the data-capturing room. Such a seemingly small and obvious process has had an incredible impact on the clinic's performance to be able to

reflect more accurate performance in the TIER.Net reports. Below are the results of one of the clinics that implemented this change idea.

4. Tracing system

The Ekurhuleni District consists of an urban population that is very mobile and diverse. It was therefore no surprise that clinics identified one of their challenges to VLC and VLS as high loss-to-follow-up rates. During the RCA, it was evident that clinics felt disempowered not knowing how to solve the challenge of patients who change addresses or never return for further management after ART initiation. The assumption was that most patients have self-transferred to another clinic.

However, clinics began to look closer at their system and **recognised that they had not taken some responsibility of creating a proactive system to trace their patients who had defaulted from their**

appointments and medication. The first 'small deed' was to begin to utilise the reporting system in TIER.Net that can provide reports on patients missing appointments, classified as 'early missed appointment patients'. This report was generated and given to the Community Health Workers for tracing, before they became 'late missed appointment patients' or defaulters. This change idea was implemented in most participating clinics to strengthen the VL system; however, there is not enough supporting evidence yet to report on the impact of this intervention.

5. Laboratory errors

The National Health Laboratory System (NHLS) is the main laboratory service provider for the primary health care clinics in Ekurhuleni. The RCA also revealed that there were many laboratory errors contributing to the low VLC and VLS rates. Some of these errors included **sending the wrong**

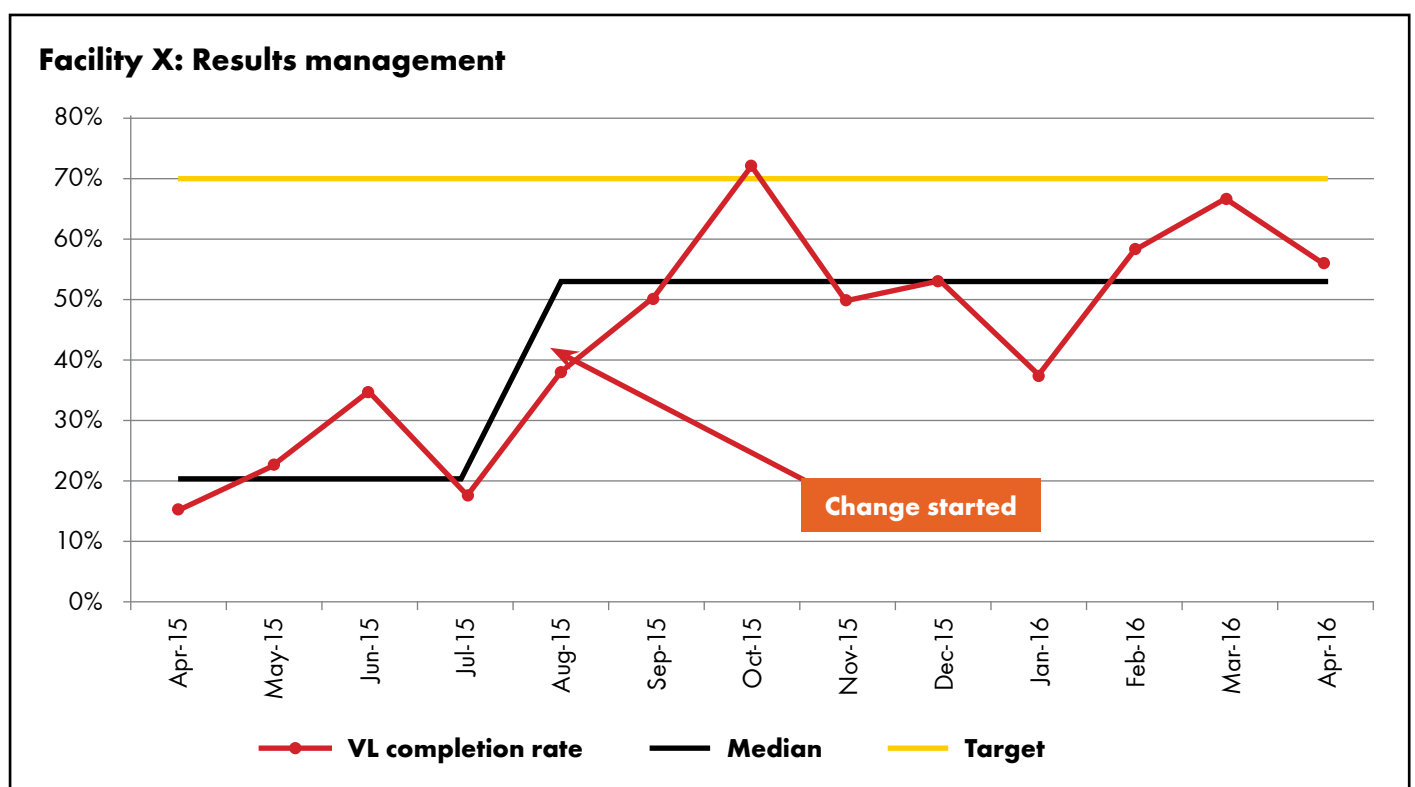


Figure 5: Results management.

results, delayed or missing results and spillages. The clinics' improved results management system discussed above, assisted in timeously identifying these lab errors so that the lab or the patient could be contacted

immediately to rectify the problem, instead of waiting for the patient to return for their results and then to be told to come again another day.

facilities participating in the learning collaborative in Ekurhuleni East and that have currently **spread to the entire district.**

Below is a table of the change ideas that were tested in the 10

Prediction	Change Idea	Change concept
Planning for patient clinic visits ensures few bottlenecks/delays and creates a system of identifying defaulters for tracing	Printing of patient list due for VL daily or weekly, pre-retrieve the files and tick list as patients attend	Scheduling and planning
Placing triggers in the patient folders will encourage clinicians to take VL or refer for blood taking	Reminder systems to identify patients due for VL and blood to be taken in correct cohort Highlight ART start date; sticker inside clinical stationery; pull out files of patients due by using the patient list due for VL daily or weekly or monthly	Reminder systems for clinicians
Supporting patients to remember their clinic visits for VL monitoring empowers the patient and motivates the patient to attend critical clinic visits	Calling patients weekly	Reminder system for patients
Due to staff shortages and rotation of staff, centralising blood taking will ensure bloods are taken daily. Furthermore, fast queuing is convenient for patients who need to be at work early.	Allocation of dedicated clinician to take bloods daily/weekly in the morning times	Centralisation of blood taken and fast queue
A system for prompt analysis of VL results will ensure results are acted upon, lab results errors are followed up and clinical stationery is updated by the clinician	Allocated clinician to interpret the VL results and update the clinical stationery to ensure results to be captured into Tier.net	Patient management and recording
Clients prioritise clinic visits for collection of medication. To ensure the system does not miss the clients due for VL, bloods are taken when they come for their medication pick-up. This will also minimise the number of clinic visits.	Amount of medication given to client should be synchronised with the next VL visit, e.g: monthly supply for 6 months; after 6 months, 3 months' supply.	Synchronisation/integration

Figure 6: Change ideas tested in ten facilities in Ekurhuleni, 2015/16.

Overall results

Ekurhuleni East has improved its VLC rate from **26% to 42%** since the the QI collaborative started.

From the collaborative efforts to improve VLC at 12 months, the facilities have learnt the need to have a systemic view of their work to enable a quality VL

service for their patients. Furthermore, clinics have improved upon how they engage with their data, realising that analysis is required to better understand VLC and VLS rates.

Essentially, staff have realised that to improve the VLS rate, one must first improve the VLC rate.

The collaborative is continuing as clinics engage and enhance their effort to reach the 90-90-90 targets set out by UNAIDS and adopted by the NDoH.

Figure 7 represents the aggregated data of the ten clinics' performance on VLC at baseline and 12 months after the QI collaborative.

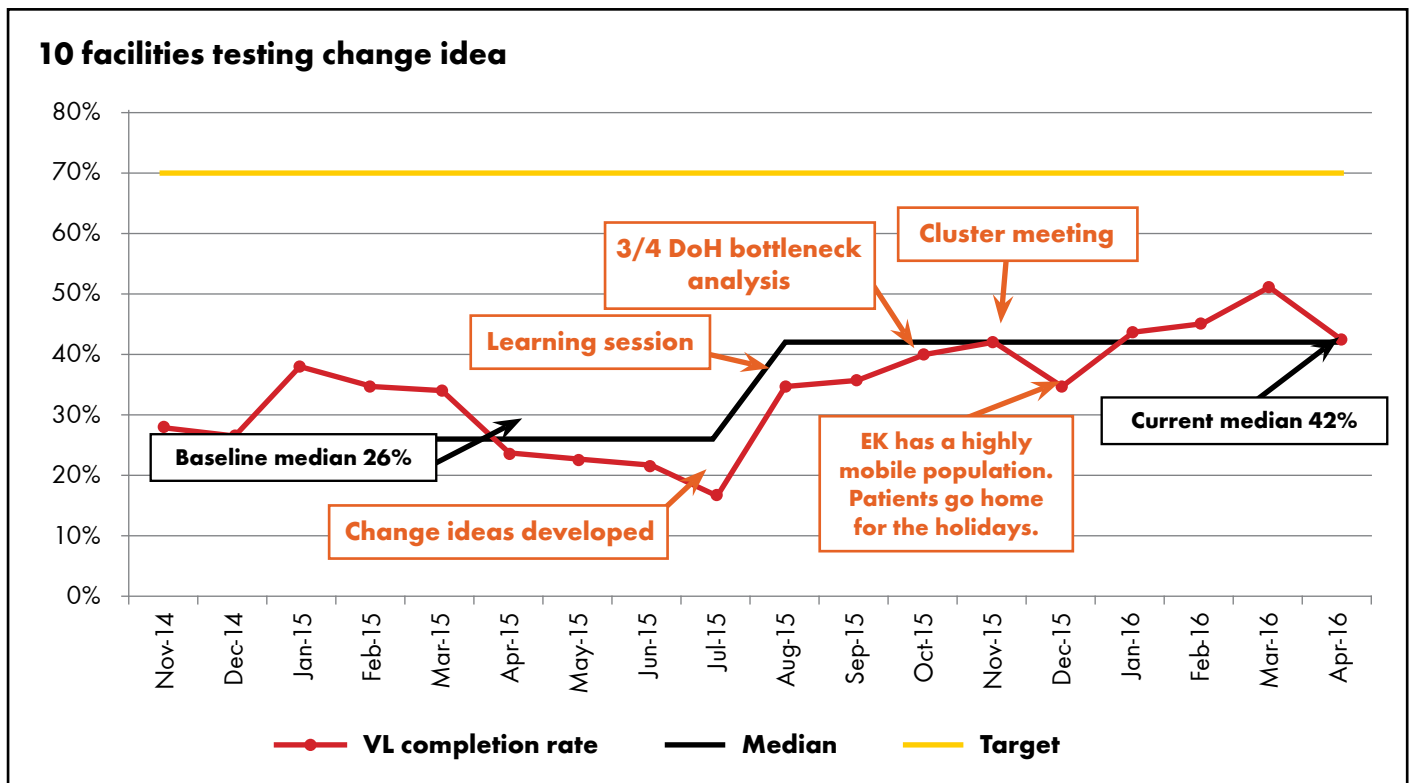


Figure 7: VL completion in 10 clinics in Ekurhuleni District (EK), 2014 - 2016.

References

1. UNAIDS. Fact Sheet Global Statistics
UNAIDS: 2014.





Competition

HIV/TB nursing

Working in the TB room as a nurse is a very challenging task because you are faced with more than TB. Many patients with TB are also co-infected with HIV/AIDS, so the TB nurse has to be extremely knowledgeable about both infections. A TB nurse has to work with a high volume of patients and s/he risks becoming infected with TB her/himself.

We want to hear about your experiences working as an HIV/TB nurse. What strategies do you use to support patients through treatment for both diseases? How do you keep them motivated, ensure they come for their appointments, make sure people living in the household are investigated, etc.? We would love to publish your strategies for success in *HIV Nursing Matters*.

Submit your typed piece, not to exceed 1 000 words, by 1 September 2016 and stand a chance to win a free one-year membership to the Southern African HIV Clinicians Society (the Society); and have your piece published in *HIV Nursing Matters*! One winner will be chosen by 15 October 2016. The winner agrees to the publication of their story in the December 2016 issue of *HIV Nursing Matters* and to submit a picture to accompany the article. The judges' decision is final and no correspondence will be entered into. Please note that only typed stories will be considered.

Please submit via email to zodwa@sahivsoc.org



**NATIONAL HEALTH
LABORATORY SERVICE**

RESULTS HOTLINE

0860

RESULT 737858

This line is dedicated to providing results nationally for HIV Viral Load, HIV DNA PCR and CD4 to Doctors and Medical Practitioners, improving efficiency in implementing ARV Treatment to HIV infected people. This service is currently available to members of Health Professionals Council of the South Africa and the South African Nursing Council. The hotline is available during office hours from 8am to 5pm Monday to Friday.

Register to use the RESULT HOTLINE

Follow this simple Step-by-step registration process

Dial the **HOTLINE** number **0860 RESULT (737858)**

Follow the voice prompts and select option 1 to register to use the hotline

A hotline registration form will be sent to you by fax or e-mail.

Complete the form and return it by fax or e-mail to the hotline to complete your registration process.

Once you are registered, you will be contacted with your unique number. This number is a security measure to ensure that the results are provided to an authorized user.

To use the hotline dial **0860 RESULT (737858)**

Select option 2 to access laboratory results.

- You will be asked for your HPCSA or SANC number by the operator.
- You will be asked for your Unique Number.
- Please quote the CCMT ARV request form tracking number (bar coded) and confirm that the result requested is for the correct patient.

Should the results not be available when you call, you will be provided with a query reference number which must be used when you follow up at a later date to obtain the result.

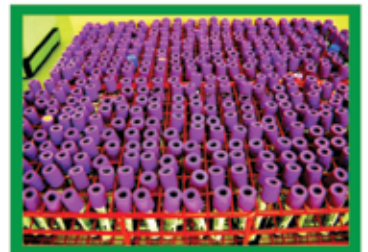
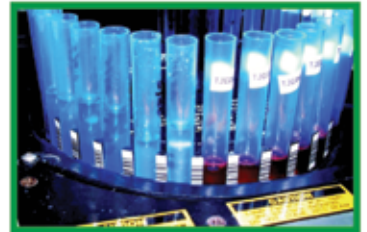
Once you have a Reference number

Select option 3 to follow up on a reference number

Should the requested results not be available, a query reference number will be provided to you.

A hotline operator will call you within 48 hours of receiving the laboratory results.

Registering for this service from the NHLS, will assist in improving efficiency, providing improved patient care and streamlining clinic processes. Call now and register to access results for HIV Viral Load, HIV DNA PCR and CD4.



Quiz questions for June 2016

1. In addition of the risk of occupational exposure to HIV and TB, name three occupational health risks that nurses face.

Answer.....

2. True or False: If a nurse is exposed to HIV at work, with their consent they should initiate post-exposure prophylaxis (PEP) as soon as possible, even if the source is virologically suppressed.

Answer.....

3. Which three drugs are recommended for PEP?

Answer.....

4. True or False: Health care-associated transmission of TB in paediatric health care settings may result from a TB-infected child, older adolescent or accompanying adult caregiver.

Answer.....

5. What is one personal risk-reduction method of reducing risk of TB infection?

Answer.....

6. Why do nurses tend to feel overworked?

Answer.....

7. True or False: Overwork in care work can be a source of occupational stress for nurses because it places extraordinary physical, emotional and mental demands on the carer, and because the desire for care is, by its nature, without limit.

Answer.....

8. True or False: Social grants promote protective behaviours among adolescents, including higher rates of condom use and lower rates of teenage pregnancy, rather than promoting harmful and risky behaviours.

Answer.....

9. In the mid-2000s, what percentage of teenage mothers accessed the child support grant?

Answer.....

10. How can nurses reduce occupational stress?

Answer.....

Quiz answers from the March 2016 issue

1. True
2. Clomipramine & Imipramine
3. Citalopram
4. 23.3%
5. True
6. True, it is necessary
7. True, it is necessary
8. Yes
9. Medical management, role management, identity management
10. Self-management is a process whereby a patient a patient focuses on the interactions, processes and day-to-day behaviour in management of a chronic condition in collaboration with health care providers and family members.

NDoH/SANAC Nerve Centre Hotlines

Any HCT concerns from facility and district managers should be reported to the NDoH/SANAC

Nerve Centre Hotline and specific emails for each province:

- **Western Cape:** 012-395 9081
sanacwesterncape@gmail.com
- **Northern Cape:** 012-395 9090
sanacnortherncape@gmail.com
- **Eastern Cape:** 012-395 9079
sanaceasterncape@gmail.com
- **KZN:** 012-395 9089
sanackzn@gmail.com
- **Free State:** 012-395 9079
sanacfreestate@gmail.com
- **Mpumalanga:** 012-395 9087
sanacmpumalanga@gmail.com
- **Gauteng:** 012-395 9078
sanacgauteng@gmail.com
- **Limpopo:** 012-395 9090
sanaclimpopo@gmail.com
- **North West:** 012-395 9088
sanacnorthwest@gmail.com



AIDS Helpline 0800 012 322

The National Toll-free AIDS Helpline was initiated in 1991 by the then National Department of Health's (NDoH's) "HIV/AIDS, STDs and TB Directorate". The objective of the Line is to provide a national, anonymous, confidential and accessible information, counselling and referral telephone service for those infected and affected by HIV and AIDS, in South Africa.

In 1992, LifeLine was requested by NDoH, to take over the management of the Line by rotating it between the 32 existing community-based LifeLine Centres, and manning it with volunteer counsellors. In 2000, in response to an increasing call rate, a centralised Counselling Centre was established in Braamfontein, Johannesburg, to house the AIDS Helpline.

The AIDS Helpline a national toll-free service, operates on a 24/7 basis and is utilised by people from all walks of life in urban and rural areas, in all 11 languages at no cost from a landline telephone.

Annually, the Line provides anonymous, confidential and accessible telephonic information, counselling and referrals to over 300 000 callers.

The AIDS Helpline plays a central role in providing a deeper preventive and more supportive service to those infected and affected by HIV/AIDS, but also serving as an entry point in terms of accessing services from government, private sector and other NGOs/CBOs.

Cases presented range from testing, treatment, transmission, TB, medical male circumcision, etc.

The AIDS Helpline incorporates the Treatment Line. The treatment support services were included to complement the services provided by lay counsellors on the line. The Treatment Line is manned by nurses who provide quality, accurate, and anonymous telephone information and/or education on antiretroviral, TB and STI treatment.





ASK THE EXPERT

If you have any HIV/TB clinical questions, send them to 'Ask the clinician' via zodwa@sahivsoc.org and you will get an answer in the next issue of *HIV Nursing Matters*. If your question is urgent, then please state so on your email and the answer will be emailed back to you and still be published in the magazine.

Dear clinician

I read in the March 2016 issue that HIV care can be integrated into chronic care services. Will this be done at all facilities countrywide?

Dear nurse clinician

Not all facilities will be able to integrate their services according to the model proposed in the integrated chronic systems management (ICSM) manual; however, attempts should be made as far as possible to integrate HIV services into all other chronic disease services.



2016 MEMBERSHIP APPLICATION FORM

PROFESSIONAL INFORMATION

Title: Prof Dr Mr Mrs Ms **Initials:** _____ **First Name(s):** _____
Surname: _____ **Institution/Organisation:** _____
Profession (check one):
 Doctor Generalist Doctor Specialist Pharmacist Professional Nurse Other: _____
If Doctor Specialist, select speciality:
 Cardiology Clinical Pharmacology Dermatology Family Physician Infectious Diseases OB GYN Paediatrics
 Physician / Internal Medicine Psychiatry Other: _____
Council number (e.g. HPCSA, SANC): _____ **Practice number** (if applicable): _____
Primary Employment affiliation (please chose one):
 Clinic Government (non-clinical) Hospital Industry Non-governmental Organisation (NGO) Private Practice
 Student University Other
Professional Activities (write '1' for primary and '2' for secondary):
 Administration Advocacy Patient care Programme Management Research Sales/Marketing
 Teaching/Education Other
Please enter the year you began treating HIV patients: _____
Please indicate if you have passed a postgraduate diploma on the clinical management of HIV from one of the following institutions:
 Colleges of Medicine of South Africa University of KwaZulu Natal Other: _____
Year completed: _____ Year completed: _____ Year completed: _____
Professional Associations: SAMA IAS FIDSSA Other: _____

CONTACT INFORMATION

Postal Address: _____
_____ **Suburb/Town:** _____ **Postal Code:** _____
Province: _____ **Country:** _____
Telephone: _____ **Mobile:** _____
Fax: _____ **Email:** _____

DEMOGRAPHIC INFORMATION

Race/ethnicity: Black Coloured Indian White Other: _____
Gender: Female Male Intersex/Transgender **Date of Birth:** □□/□□/□□□□

MEMBERSHIP PREFERENCES

Would you like to receive a posted copy of the Society's magazine for nurses, *HIV Nursing Matters*? (Copies are available free on the Society's website: www.sahivsoc.org) Yes No
Would you like to participate in the Society's online membership directory? (Your contact information will be available only to other Society members through the members portal on the Society's website) Yes No
How would you like to receive communications from the Society (check all that apply): SMS Email

- **Doctors** **R400 per annum**
- **Nurses & Allied Health Professionals** **R300 per annum**
- **Pharma Package** **R14000 per annum**
includes 10 pharma rep memberships, 2 mailers and 1 social media event / article
- **Organisation (NGO) Package** **R3500 per annum**
for 10 staff memberships or R6000 per annum for 20 staff memberships

Signed: _____
Date: _____
 I hereby agree to support the values and mission of the Society; and agree to the membership code of conduct

Method of payment: Electronic Transfer Direct Deposit Post/Cheque Cash **Payment Date:** □□/□□/□□□□

Fees are now charged for a calendar year or pro rata according to the date of application. Payments may be made by cheque or electronic transfer payable to: Southern African HIV Clinicians Society, Nedbank Campus Square, Branch Code 158-105, Account No: 1581 048 033. For alternative online payment please go to <http://sahivsoc.org/about/membership-application> and click the "Pay Now" button. Please reference your surname and/or membership number on the payment. Please fax or email proof of payment to 011 728 1251 or admin@sahivsoc.org or post to: Suite 233, Post Net Killarney, Private Bag x2600, Houghton 2041.

HAVE QUESTIONS? Please contact us: 011 728 7365 / admin@sahivsoc.org / www.sahivsoc.org



UNITING NURSES IN HIV CLINICAL EXCELLENCE, BECOME A MEMBER.



Who are we?

We are a member-based Society that promotes quality, comprehensive, evidence-based HIV health care, by:

1 LEADING • PIONEERING

We are a powerful, independent voice within Southern Africa with key representation from the most experienced and respected professionals working in the fight against HIV.

2 CONNECTING • CONVENING • ENGAGING

Through our network of HIV practitioners, we provide a platform for engagement and facilitate learning, camaraderie and clinical consensus.

3 ADVOCATING • INFLUENCING • SHAPING

With our wealth and depth of clinical expertise, we can help health care workers take their practice to a new level. We are constantly improving and expanding our knowledge, and advocating for clinical and scientific best practice.

Member Benefits

Join today and gain instant support from a credible organisation. The Society helps connect you with the best minds in HIV health care. Build your knowledge, advance your profession and make a difference by getting involved now!

- Free online subscription to the *Southern African Journal of HIV Medicine*
- Free quarterly subscription to the Society's e-newsletter, *Transcript*
- E-learning through CPD-accredited clinical case studies and online discussion group forums
- Free tri-annual subscription to *HIV Nursing Matters*
- Weekly SMS clinical tips for nurse members
- Free CPD-accredited continuing education sessions
- Listing in the Society's online HIV provider referral network

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