Stock Outs in South Africa
Second Annual Report

STOP STOCKOUTS

2014 Stock Outs Survey

MEDECINS SANS FRONTIERES

SOUTHERN AFRICAN HIV CLINICIANS SOCIETY

+SECTION27 catalysts for social justice

RUDASA

TAC TREATMENT ACTION CAMPAIGN

Rural Health Advocacy Project

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Foreword:

One of the biggest frustrations faced by rural clinicians at the coalface of healthcare delivery in clinics and district hospitals is that short, yet devastating sentence: "Sorry, it's out of stock". It is hard to describe the helplessness and anger one feels when cheap, yet important medications such as anti-hypertensives, anti-epileptics, ARV's, antibiotics and even simple analgesics are not available. I do not know a single healthcare provider working in a government hospital, rural or urban, who has not often heard and does not always dread that sentence uttered; sometimes several times a week, potentially signalling death for the people we serve. When medication is not available, it means that trained health professionals are practicing without some of the most important tools at their disposal. And of course, medicine stock outs are worse in rural areas, where pharmacists and pharmacy assistants are scarce, and the supply chain is long and weak.

Such shortages are hugely demotivating for healthcare workers – doctors, nurses and therapists alike. Yet, much more significant is the suffering it engenders for the many South Africans reliant on the public health system. The absence of medication causes people to suffer unnecessary pain. Babies who should be protected during delivery acquire HIV, grannies to be laid low by an avoidable stroke and uncomplicated TB infections turn into resistant ones. Each time a medication is out of stock, there is a measurable human impact, in terms of hours wasted, hard-saved money spent on taxi fare to no avail, diseases left untreated, and confidence lost in our public health system. Stock outs of medications on the essential drugs list are never acceptable. Every stock out is a dire emergency and should be treated as such.

This survey quantifies the level of stock outs of a few basic, essential medications in the government sector and aims to help start a conversation to identify causes and find solutions to an unacceptable situation. If we are to ensure a reliable supply of medicines to all South Africans, regardless of where they live, every level of the healthcare system will need to tackle this problem and work together from districts, to province and to the National Department of Health.

Dr. Karl le Roux, Rural Doctors Association of Southern Africa (RUDASA)

Perspectives

The Treatment Action Campaign: A view from the trenches

Over the first months of 2015, members from the Treatment Action Campaign (TAC) reported a number of stock outs from Mpumalanga. Some of these were for paediatric antiretrovirals, some were for childhood vaccines, and some were for hypertension medicines. We have engaged Mpumalanga leadership from various levels about these problems continually over the last year, but to no avail. Even in 2015, children with HIV are forced to go without the medicine they require and to which they have a right. We consider this to be a crisis.

As this report of the Stop Stock Outs Project (SSP) shows, South Africa is not winning the fight against stock outs of essential medicines. Yes, we appear to be doing a better job of getting the standard first-line fixed-dose combination out to patients, but the overall picture is the same, or worse, than that painted by the previous SSP report. This bleak conclusion is also reflected in reports from the TAC's active membership of over 10 000 users of the public healthcare system.

As we have often said in recent years, there is some hope. Minister of Health Dr Aaron Motsoaledi and his team seem committed to solving the problem of stock outs. And, as reported in this publication, that cooperation, at least in word, now extends to a number of provinces. We are committed to engaging constructively with these provinces and to try to play our part in finding sustainable solutions to the crisis of stock outs.

That said, we won't be silenced merely by a bald promise to do the right thing. The proof of the pudding will be in the eating. The Constitution requires real change on the ground in every province, in every district, in every healthcare facility. This is our demand. Our struggle will continue until the day our members tell us that there are no more stock outs at their local clinic. This will be a long road, but we are ready and willing to be part of the solution. The reality is that in many provinces we are faced with political obstacles that require political solutions. As TAC we are committed to finding these political solutions where the interests of our members and users of the public healthcare system require it.

We do not accept that the people of the Free State should suffer. We do not accept that the people of Mpumalanga must suffer. We do not accept that children with HIV should suffer because of the mediocre political leadership in these two provinces. This report quantifies the problem and indicates the extent of the human suffering it causes – suffering felt worst by the poorest and most vulnerable among us. It also signals the struggle ahead. TAC is ready.

Aluta continua
Anele Yawa, TAC General Secretary

Perspectives

Southern African HIV Clinician's Society: A view from the wards

For those living with HIV and/or TB, antiretroviral therapy and anti-tuberculosis treatment are lifesaving. We need an uninterrupted supply of these medications for public health, to prevent ill health and death, to control transmission and to prevent resistance developing in both infections.

In 2015 in South Africa, the vast majority of HIV infected individuals are adults who are on first line therapy consisting of single day dosage fixed combination (FDC). In addition, most individuals who present with TB will respond to a FDC of anti-tuberculosis medication containing rifampicin - the first line treatment. While FDC is the most common form of treatment, there are clinical reasons why individuals with HIV and/or TB may need other medications or formulations. These would include resistance, age, side effects and other comorbidities including renal failure. The supply of other single drugs and formulations will always, therefore, be necessary, but to a lesser extent than the fixed dose.

To be able to effectively manage the dual epidemics of HIV and TB, it is important that the health care system can deliver the most commonly utilized treatment to all people who need it. A focus on FDC makes sense from a public health perspective. In this survey, we found 75 facilities with FDC stock outs. There were no stock outs of FDC at a national level indicating that these FDC stock outs result from management and logistical challenges between the medical depot and the clinic. In 9 facilities with FDC stock outs patients were sent away with no treatment and in 18 facilities they were given a smaller supply requiring patients to return more often to the clinic. In the balance of the facilities, extra supplies were borrowed or patients were switched to appropriate therapy. Although significant stock outs of other medications including ARVs were still seen, the relatively low patient impact of FDC stock outs is encouraging.

Equally encouraging is the openness of the National Department of Health and some provincial departments of health to dealing with the problems as quantified in this report. Our aim as a civil society consortium is to collaborate with the government at all levels to ensure that there is an end to stock outs. With the recent collaboration displayed by the national and certain provincial departments of health, there are signs that this will be achievable.

Dr. Francesca Conradie, President

Executive Summary

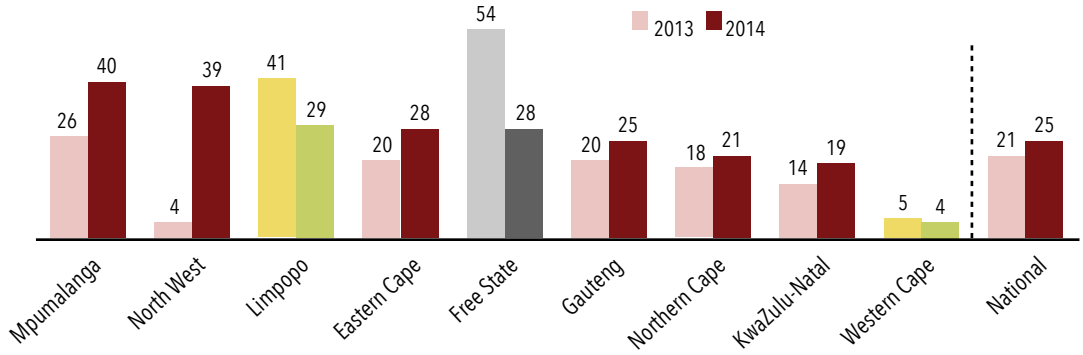
South Africa has among the largest HIV and TB epidemics in the world. A reliable supply of life-saving medication is a constitutional right as well as critical to personal and public health. The Stop Stock Outs Project (SSP), a civil society coalition, seeks to ensure that all people have access to the medicines they require and to which they have a right. The SSP does so by monitoring and communicating about shortages and stock outs of medication, and ensuring that transparency and accountability exists along the supply chain. With its free hotline, the SSP ensures that patients and health care workers can ring the alarm when stock outs occur anywhere in the country. Rapid communication to public health authorities aims to speed up resolution of stock outs and gradually improve the supply chain. To systematically assess and quantify the extent of medicine stock outs in public health facilities across South Africa, the SSP undertakes annual national surveys. Thus far, we have conducted studies in the fourth quarters of 2013 and 2014. Raw data for the survey can be found at www.stockouts.org.

2014 Survey Results: Similarly to the 2013 survey, there was a high participation rate by respondents in the 2014 survey, indicating a willingness from facility staff to resolve the issues. Over 80% of facilities in every province, except for Free State, were willing to participate in this survey.

HIV and TB: Nationally, more than one in four (614/2,454 – 25%) facilities reported any ARV or TB medicine stock out in the three month survey period compared to one in five (459/2,139 – 21%) in 2013.

- Availability of Fixed Dose Combinations (FDCs) was available in more facilities in 2014, an improvement compared to 2013. While 75/614 facilities reported FDC stock outs, only 18 facilities sent patients home with a smaller supply and 9 facilities sent patients home with no supply.
- There were frequent stock outs of other 1st line HIV medicine, 2nd line HIV medicine, paediatric HIV medicine, isoniazid preventive treatment (IPT) for TB, and medicine for complicated TB. Patients who require medicine other than FDCs are often already more vulnerable because they have clinical complications such as resistance, side effects, and/or other co-existing conditions such as renal failure, or because they are children or adolescents.
- Resolving stock outs requires clear and strong commitment at the provincial and district levels. The five provinces with the largest proportion of facilities reporting stock outs were Mpumalanga (40%), North West (39%), Limpopo (29%), Eastern Cape (28%) and Free State (28%). The lower response rate in the Free State suggests this figure probably underestimates the true rate of facilities affected by stock outs.

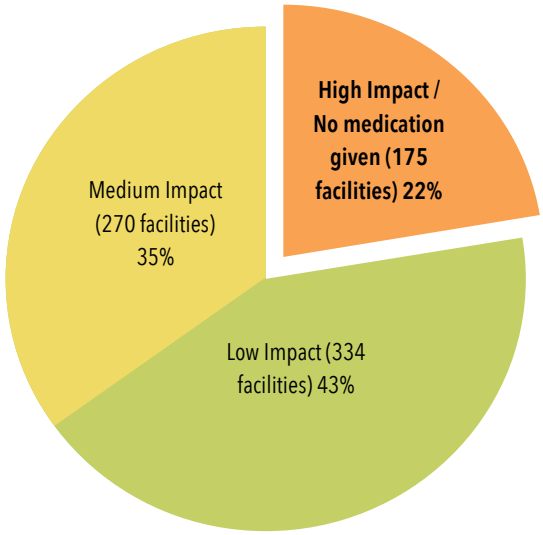
Proportion (%) of facilities by province for 2013 & 2014 reporting at least one ARV/TB stock out in the three months prior to contact.



- Six provinces had an increase in the number of facilities reporting ARV/TB medicine stock outs in 2014 compared to 2013 - Eastern Cape, Gauteng, KwaZulu-Natal, Mpumalanga, North West and Northern Cape.
- Limpopo and the Western Cape had a decrease in the proportion of facilities reporting stock outs in 2014.
- Free State had a significant drop in participation by facilities in 2014. In 2013, 87% facilities shared information on stock outs, while in 2014 only 63% did so. This suggests a change in context, where healthcare workers are unable to report stock outs.
- In 22% (175/779) of the cases where an ARV/TB medicine was reported out of stock, the patient was sent home with no medication (high impact). In 35% (230/779) of cases the patient was either given a smaller supply, their pill burden was increased or a less than optimal medicine was given (medium impact). In 43% (334/779) of stock outs reported the facility was able to borrow medicine and the patient went home with their full supply of treatment (low impact).

Childhood Vaccines (Rotavirus, Pentaxim, Measles): 12% (249/2157) of facilities reported a stock out of at least one vaccine.

- Pentaxim stock outs were most frequently reported in Limpopo, where 28% (67/238) of facilities were affected.
- Rotavirus vaccine stock outs most often reported in Eastern Cape, where 10% (42/428) of facilities were affected.



Patient Impact of ARV/TB stock outs

- Measles vaccine stock outs occurred most frequently in Mpumalanga, where 8% (15/182) of facilities were affected.

Other essential medicines

- Salbutamol inhaler (asthma) was most often out of stock in North West, where 43% (92/214) of facilities were affected.
- Sodium valproate (epilepsy) was most often out of stock in KwaZulu-Natal, where 22% (78/345) of facilities were affected.
- Enalapril/perindopril (hypertension) was most often out of stock in Northern Cape where 20% (21/104) of facilities were affected.

Collaboration with the Department of Health:
The findings of this survey have been presented to the National Department of Health (NDoH) and the Provincial Departments of Health (DoH) in the Free State, Gauteng, Limpopo, North West, Northern Cape and Western Cape.

The aim of this report is to contribute to a constructive dialogue between civil society, DoH and its partners. Therefore, all departments were invited to include in the report a response to the report or plan of action to address the crisis quantified in the report.

The **Gauteng, Limpopo, Northern Cape, North West, and Western Cape** provincial Departments of Health have engaged with civil society on causes of stock outs and potential solutions to improve the supply chain. **We applaud their committed action plans to resolve stock outs and have included them in this report.**

Strong commitment and political are necessary for the implementation of these action plans. Despite repeated attempts to discuss the findings of the report and plans to resolve stock outs, the **Eastern Cape, KwaZulu-Natal and Mpumalanga provincial departments of health have not responded**. **Free State** has opted not to contribute to this report. We call on these provincial departments to follow the example set by the national department of health and the other provincial departments and engage constructively with civil society to implement action plans to ensure that their facilities have the medicines patients' require.

Recommendations and Way Forward:

I. **Urgent action is needed in the worst-affected seven districts and two provinces where close to 40% of facilities reported stock outs.**

   North West and Mpumalanga had **40%** and **39%** respectively of facilities reporting an ARV or TB stock out.

   The **seven most severely affected districts,** with over 40% of facilities reporting ARV/TB stock outs, are:

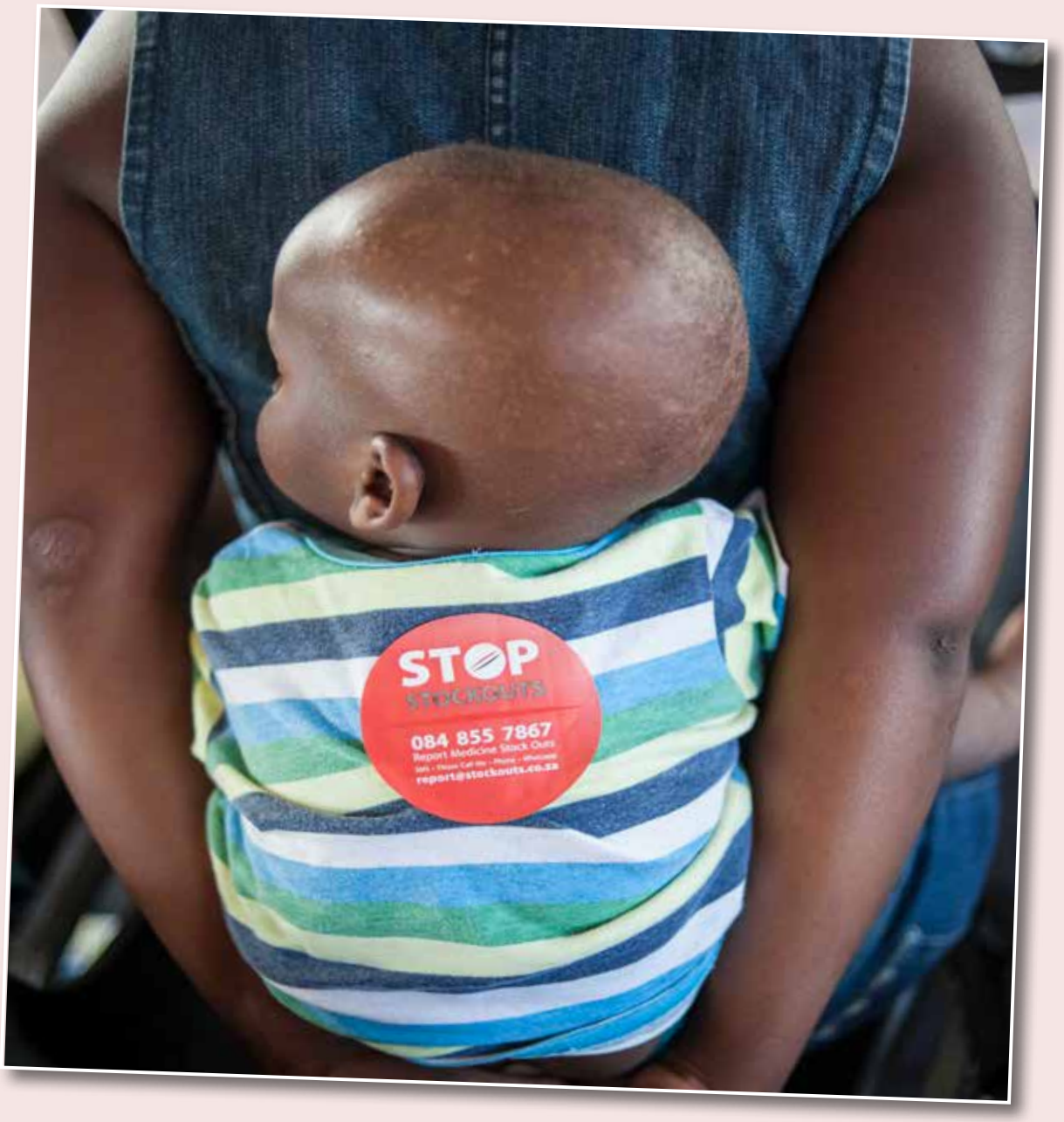
   - **Joe Gqabi 46% (16/35), Eastern Cape**
   - **Alfred Nzo 50% (28/56), Eastern Cape**
   - **Bojanala 44% (34/77), North West**
   - **Nkangala 44% (25/57), Mpumalanga**
   - **Gert Sibande 41% (23/56), Mpumalanga**
   - **Lejweleputswa 42% (13/31), Free State**
   - **Fezile Dabi 42% (11/26), Free State.**

   An emergency task force is needed to resolve urgent stock outs to respond to the crises in these districts. The NDoH should assist provinces with the formation of this task force urgently.

II. Provincial and National health departments must work together to establish and implement **national minimum standards for supply chain management and resolution of stock outs** in all provinces.

III. Provincial health departments should develop and implement **provincial action plans** to resolve and prevent stock outs in every province, with clear timelines and evaluation of these action plans and provision for emergencies, and focus on worst-hit districts. SSP offers to work with provincial departments to develop these plans.

[1] *Pentaxim is a combination vaccine against diphtheria, tetanus, pertussis, poliomyelitis and Haemophilus influenzae type b.*



"I'm a 45-year-old single lady. I live in an informal settlement close to the Lilian Ngoyi clinic called Aaron Motsoaledi. The majority of the people who live there are from rural areas in provinces outside of Gauteng. I was diagnosed with HIV 16 years ago and started ARV treatment in September 2014. In February 2015, after taking FDC for 5 months I experienced what it is like to not be able to take treatment because of stock outs. When I arrived at my clinic, I was told that my treatment was not in stock and sent home with no medicine. I am not formally employed and I rely on informal employment, which comes about irregularly. Regular visits to the clinic to check if the medication is available negatively impact my chance at employment. Employers started seeing me as unreliable and am paid less due to being late for work after checking to see if my FDC was available yet. The stock out lasted for 3 weeks until I was able to get my treatment. I was very happy when I finally received my treatment."

-Maria from Michael Maponya Clinic, Soweto, Gauteng

2014 Stock Outs Survey in South Africa Second Annual Report

Introduction

With approximately 3 million people on antiretroviral therapy (ART) and more than 300 000 people treated for tuberculosis (TB) every year, South Africa puts incredible demands on its health system. Well-functioning supply chains to deliver medicines and vaccines are critical for its ability to respond to the needs of the population and have effective treatment programmes. As a civil society coalition that ensures transparency and accountability exists along the supply chain, the Stop Stock Outs Project (SSP) was formed to ensure that all patients have access to the medicines they require.

On a day to day basis, the SSP receives reports of essential medicine stock outs from patients and health care workers through a confidential hotline. Using these reports, the SSP liaises with the Department of Health (DoH) along different levels of the supply chain to facilitate and monitor the resolution of each case. Additionally, the SSP aims to engage with government in its efforts to improve procurement, distribution and management of essential medicine stocks in the longer term. In 2014, the SSP received 614 reports of essential medicine stock outs from the general public through the hotline.

To systematically assess and quantify the extent of medicine stock outs in public health facilities across South Africa, the SSP also undertakes annual national surveys. Thus far, two surveys have been conducted, in the fourth quarters of 2013 and 2014.

The first, conducted in 2013, was the largest survey at that time on stock outs in South Africa. In 2013, 21% of facilities (459/2139) reported a stock out or shortage of antiretroviral (ARV) and/or tuberculosis (TB) medicines over a three-month time period. 403 (19%) facilities reported stock outs of ARVs compared to 68 (3%) facilities that reported stock outs of TB medicines. In 20% of affected facilities, patients were sent home or referred elsewhere without medicines. To re-assess the extent of stock outs one year later, a second survey was conducted in 2014, with modification in the methodology made in consultation with the National Department of Health (NDoH) and stakeholders in the consortium.

"I suffer from an inflammation in my stomach and in my chest. I have been suffering with this condition for 10 years. In July 2014, I was sent to Baragwanath Hospital for a full check-up. After the check-up I was put on treatment called Ranitidine, this medicine helped me a lot. I was referred to Lilian Ngoyi clinic and that is where I started getting my treatment. But I have been having problems getting my medicine. In January and February 2015 I did not get my treatment and the nurse told me I must buy my own medicine from the pharmacy. In March the nurse gave me treatment for 10 days. Now, in April again I was told I must buy my own medicine. I borrowed money from my friend so that I could buy the treatment. "

- Patient (32 years) from Lilian Ngoyi Clinic, Soweto, Gauteng

Methods

This telephonic survey was conducted over six weeks, from October to November 2014. Survey assistants were recruited and trained to use the same questionnaire to enable the collection of standardised information from all facilities contacted. Upon calling a facility, the surveyor asked to speak to, in order of preference, the pharmacist, pharmacy assistant or person who orders the facility's medicine. The motivations and aims of the survey were explained to respondents who were then asked to respond anonymously to questions about medicine stock outs at their facility.

For the purposes of this survey, a stock out was defined as no medicine on the facility shelf. A stock out in the preceding 3 months was an event occurring during the 90 days before the day of the phone call and an ongoing stock out was an event occurring on the day of the phone call. Facilities reporting a stock out on the day of the call were asked if they were willing for their facility name to be identified for follow-up. 77% (314/410) of facilities agreed and details were forwarded weekly to NDoH. A facility was deemed unreachable if no correct phone number could be obtained or if after four attempts to phone the facility, the call remained unanswered.

Adjustments to the survey methodology were made in 2014 in order to gather more refined information. The following changes were made:

Table 1: 2013 and 2014 Changes in Methodology

Survey Question	2013	2014
Respondent	Sister in Charge	Pharmacist, Pharmacy Assistant or Person who orders the facility's medication
Type of rupture	ARV/TB stock outs and shortages	ARV/TB stock outs only
Phrasing	Stock outs	Medicines that are out of stock
Dosage	Dosage not requested	Dosage requested (e.g.150mg, 300mg)
Patient impact	Open-ended response accepted	Categorized into 3 categories based on 2 other categorical questions (See Table 2 for more details)
Vaccines	Any vaccine stock outs	Rotavirus, Pentaxim, and Measles vaccine stock outs
Other Essential Medicines	Not included	Salbutamol Inhaler (asthma), Metformin Tablets (diabetes), Sodium Valproate Tablets (epilepsy), Enalapril/Perindopril Tablets (hypertension), Ceftriaxone Injection (antibiotic) stock outs

In 2014, to define high, medium and low impact stock outs, respondents were asked about the action taken by the facility and the subsequent effects of their actions on affected patients. Stock outs were then categorized as high, medium and low impact according to the definitions described in Table 2 below. Between 2013 and 2014, changes in the definition of the patient impact of reported stock outs in the survey were made. The comparable figure between 2013 and 2014 is the number of patients leaving the facility without any medication, defined as a *high impact* stock out in the 2014 survey and as *left with no medication* in the 2013 survey.

Table 2: 2014 Patient Impact Definitions

Impact Category	Facility Action:	Patient Left Facility With:
High	Referred and/or turned patients away	No medication
Medium	Referred and/or turned patients away Borrowed Switched to a different dosage, pill burden increased Received a less optimal medicine or regimen	A smaller supply A smaller supply A smaller or full supply A smaller or full supply
Low	Borrowed Switched appropriately to a different medicine	A full supply A full supply

Results

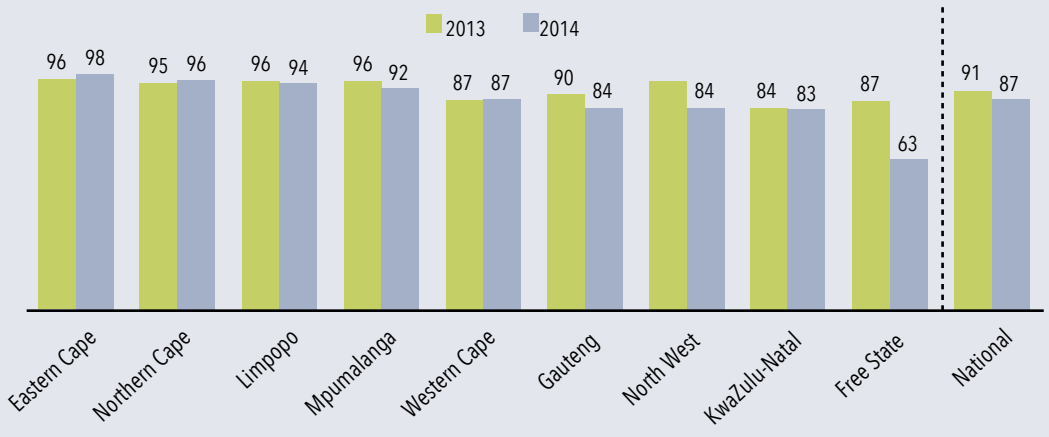
Survey Response

Between October and November 2014, the survey team contacted 2865 (77%) of the 3732 facilities identified nationwide by telephone. In the remainder of cases a telephone number for that facility was not obtainable, or the number called was unreachable after four attempts. Table 3 below shows by province the number of facilities identified, the number of facilities that were contacted by phone, and the number of facilities that provided information. Of the facilities that were contacted, 87% (2499/2865) provided information; 45 facilities did not treat HIV or TB patients and were removed from the denominator. In the other 13% (365/2865) of cases, the individual answering the phone declined to participate. Respondent rates were above 84% in most provinces (except in the Free State) indicating willingness of facility staff to collaborate and resolve the problem.

Table 3: Facilities that were contactable and provided information on stock outs of ARV and/or TB medicines. Results by province in 2014.

2014	Number of Facilities Identified	% (Number) Facilities Contactable by Phone	% (Number) Facilities Providing Information
Eastern Cape	696	75% (519/696)	98% (509/519)
Free State	242	97% (235/242)	63% (147/235)
Gauteng	409	85% (348/409)	84% (294/348)
KwaZulu-Natal	717	74% (532/717)	83% (444/532)
Limpopo	370	76% (282/370)	94% (266/282)
Mpumalanga	327	68% (223/327)	92% (205/223)
North West	332	80% (265/332)	84% (222/265)
Northern Cape	141	79% (112/141)	96% (107/112)
Western Cape	498	70% (349/498)	87% (305/349)
National	**3732**	**77% (2865/3732)**	**87% (2499/2865)**

Table 4: Proportion (%) of facilities participating in survey, 2013 & 2014



ARV and TB Stock Outs

In 2013, 21% (459/2139) of facilities and in 2014, 25% (614/2454) of facilities reported at least 1 ARV/TB stock out in the three months prior to contact. In 2013, 11% (242/2239) of facilities and in 2014, 17% (410/2454) of facilities reported at least one ARV/TB stock out on the day of the call (ongoing). The results for 2014 compared to 2013 are illustrated in Table 5 and 6 below. In 2014, with improved methodology, the implications of these proportions in terms of their effect on patients can be understood.

Table 5: Proportion (%) of facilities by province for 2013 and 2014 reporting at least one ARV/TB stock out in the three month period prior to contact.

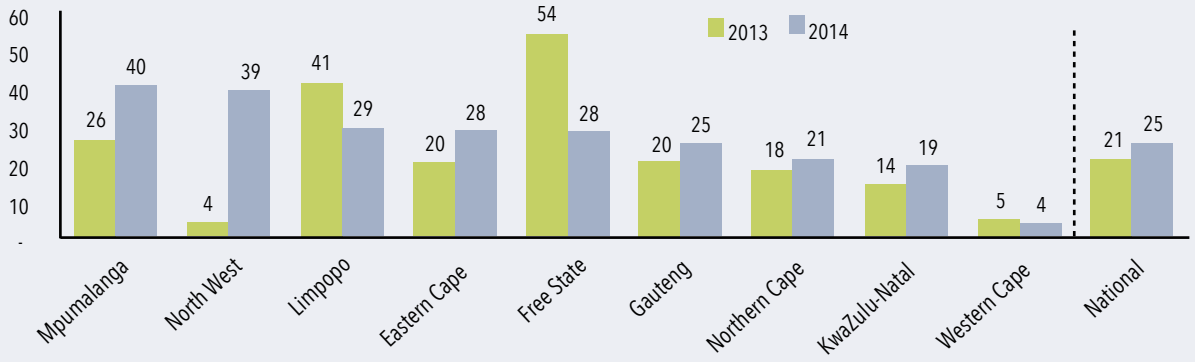
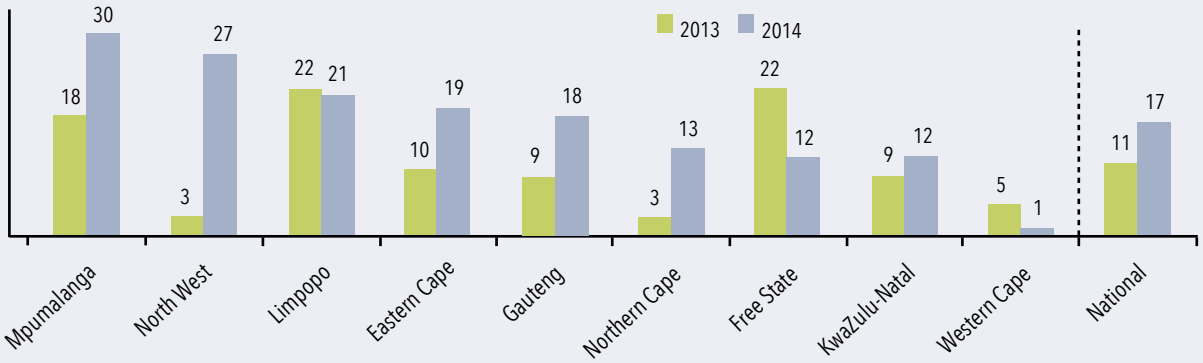


Table 6: Proportion (%) of facilities by province for 2013 and 2014 reporting at least one ARV/TB stock out on the day of contact (ongoing)



There was wide variation in the extent of stock outs between provinces and between districts (district breakdown located in graphs of the provincial overview section below). In 2014, six provinces (Eastern Cape, Gauteng, KwaZulu-Natal, Mpumalanga, North West, and Northern Cape) had an increase in facilities reporting a stock out compared to 2013. Free State, Limpopo and Western Cape had a decrease in the proportion of facilities reporting stock outs in 2014 compared to 2013. However, the lowered respondent rate of 63% in the Free State could lead to an underestimation of the extent of the problem.

Mpumalanga reported the largest proportion of facilities with stock outs, with 40% (82/205) of facilities reporting a stock out of at least 1 ARV/TB medication in the preceding three months and 30% (62/205) of facilities in Mpumalanga reporting a stock out on the day of the survey call. North West province had the most significant increase from 4% (8/182) in 2013 to 39% (86/222) in 2014 in facilities reporting stock outs.

"I was given alternative treatment because Tenofovir tablets were out of stock. I don't remember the name now, but my system did not agree with it and I reacted very badly to the medicine. I could not take it anymore. I phoned the Stop Stock Outs Project hotline in February 2015, after getting their contact number from a friend of mine, to see how they can help me. After reporting this incident, a week later I received a call from the clinic to let me know that my treatment was available. I am happy to be on my treatment again because that other one was making me feel very depressed."

- Patient (46 years old) from Matsulu CHC, Nelspruit, Mpumalanga

Breakdown of ARV and TB Stock Outs

The majority of reported ARV/TB stock outs were for treatment of adult HIV patients. Nationwide, 14% (351/2454) of facilities reported a stock out of medicine used for adult HIV treatment, 3% (78/2454) for PMTCT treatment, 6% (154/2454) for paediatric HIV treatment and 6% (140/2454) for TB treatment. Table 6 on the next page shows the provincial breakdown of facilities reporting stock outs for the different patient groups.

Table 7: Proportion (%) of facilities reporting adult ARVs, PMTCT, paediatric ARVs and TB stock outs in the three month period prior to contact.

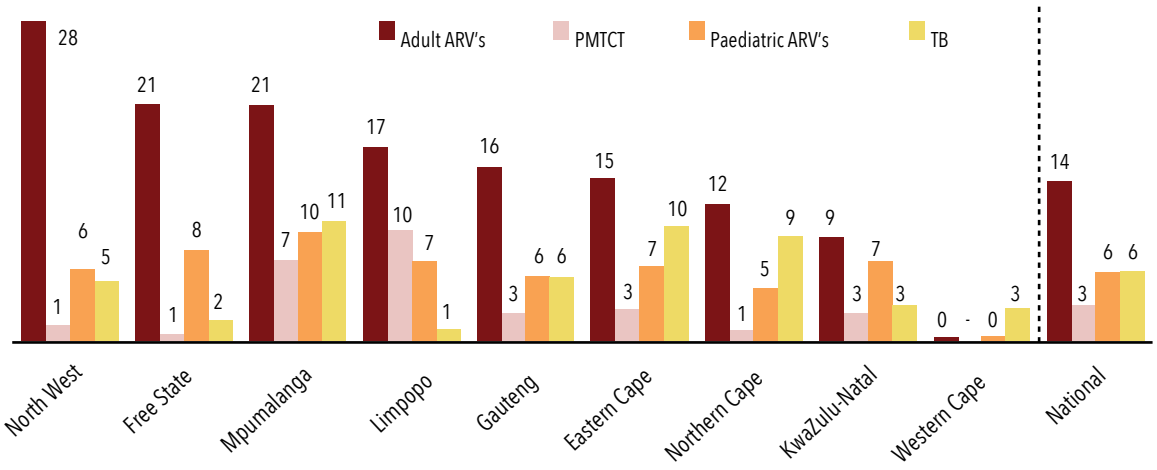
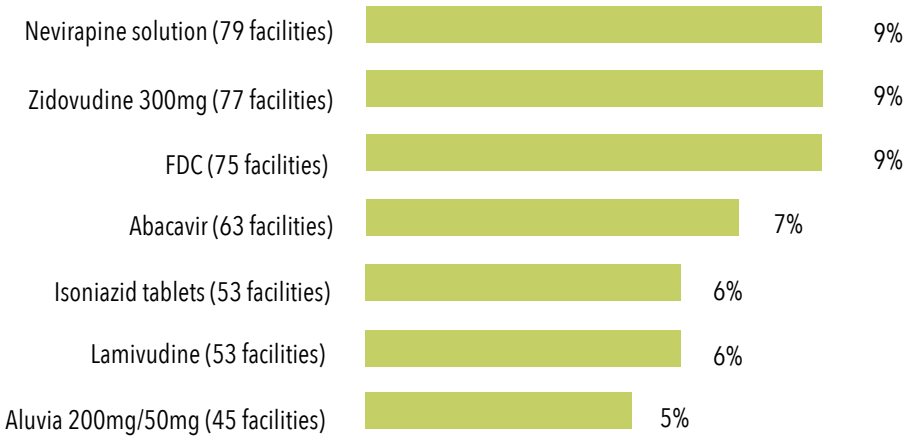


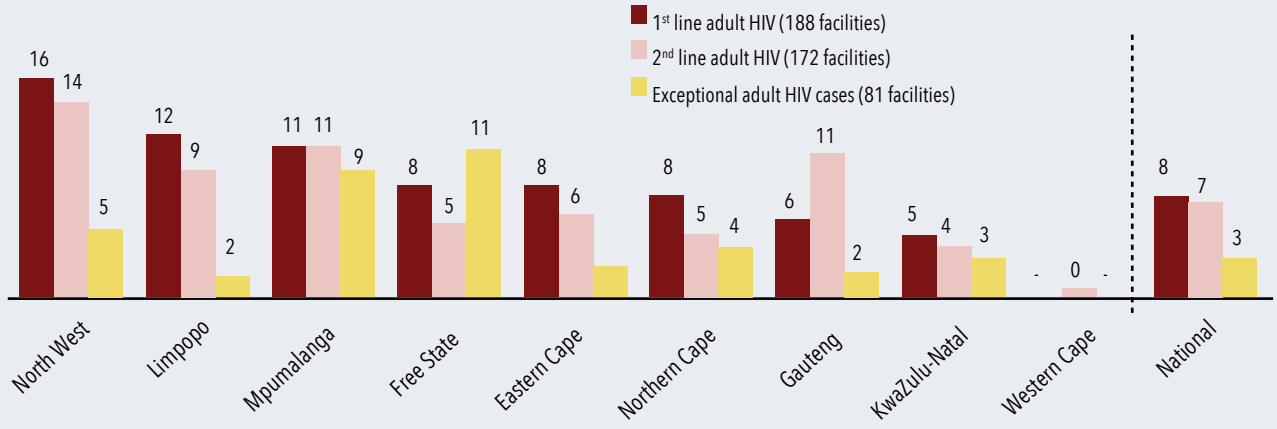
Table 8: Seven most commonly reported medicines nationwide in 2014. Breakdown of the 867 instances where ARV and/or TB medicines were reported out of stock.



A total of 867 instances of ARV/TB medicines were reported out of stock in 614 different facilities as some facilities reported more than 1 item out of stock. Table 8 above shows the breakdown of the seven most commonly reported individual medicines. Review of individual medicines reported indicates that no one single item was disproportionately out of stock. A total of 43 different ARV or TB medicines were reported out of stock, with some medications reported out of stock in only 1 facility and some medications reported out of stock in 79 facilities nationwide. During this period, the known medicines that were out of stock at a national level were Nevirapine solution and Isonaizid tablets (INH) as picked up by this survey.

Adult HIV[2] Stock Outs: Nationwide, 351 of 2454 (14%) facilities reported a stock out of at least 1 adult ARV, the majority of which are used in first line adult HIV treatment regimens according to South African national protocols. Table 9 below shows the reported stock outs of adult ARV regimens by province. The three most commonly reported adult ARV stock outs were of (AZT) Zidovudine 300mg for adults (77 facilities), (FDC) Fixed Dose Combination (75 facilities), and (ABC) Abacavir for adults (63 facilities).

Table 9: The proportion (%) of facilities by province in 2014 reporting ARV stock outs in the three month period prior to contact.



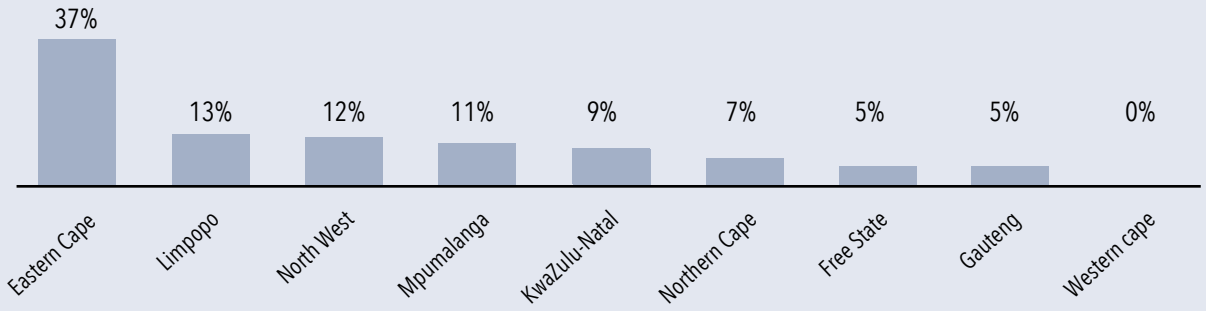
Impact

There were 75 facilities that reported stock outs of the FDC. However only 9 of 75 facilities sent patients home with no FDC, and only 18 out of 75 facilities sent patients home with a smaller supply.

Treatment with FDC is advantageous as it reduces the pill burden on patients from three or four to one tablet a day which can positively influence treatment adherence. Until the end of 2014, FDC was the treatment of choice for initiation of all adult patients without contra-indications and a CD4 count lower than 350 copies/ml. From 2015 on, national guidelines have changed the criteria for initiation to all patients with a CD4 count lower than 500 copies/ml. If the country aims to have 4.6 million people on HIV treatment by the end of 2016, facilities need to closely monitor their FDC as FDC stock outs will impact a large number of patients.

[2] ** 1st Line ARVs: (D4T) Stavudine 30mg , (EFV) Efavirenz 600mg , (TDF) Tenofovir 300mg , (TDF/FTC/EFV (FDC))Tenofovir/Emtricitabine/Efavirenz 300/200/600mg , (TDF/FTC) Tenofovir/Emtricitabine 300mg/200mg, (3TC) Lamivudine 150 or 300 mg; **2nd Line ARVs: (AZT) Zidovudine 300mg , (LPV/r) Lopinavir/Ritonavir200mg/50mg , (ATV) Atazanavir 300mg , (ddi)(Didanosine), (RTV) Ritonavir 100mg; *** Exceptional Cases: (NVP) Neviarapine 200mg, and (ABC) Abacavir 600mg*

Table 10: Provincial breakdown of 75 facilities reporting FDC stock outs by province in 2014.



[1] *December 24, 2014. NDOH Press Release. Various Pharmaceutical Companies Gets Tender to Supply ARV's In South Africa*

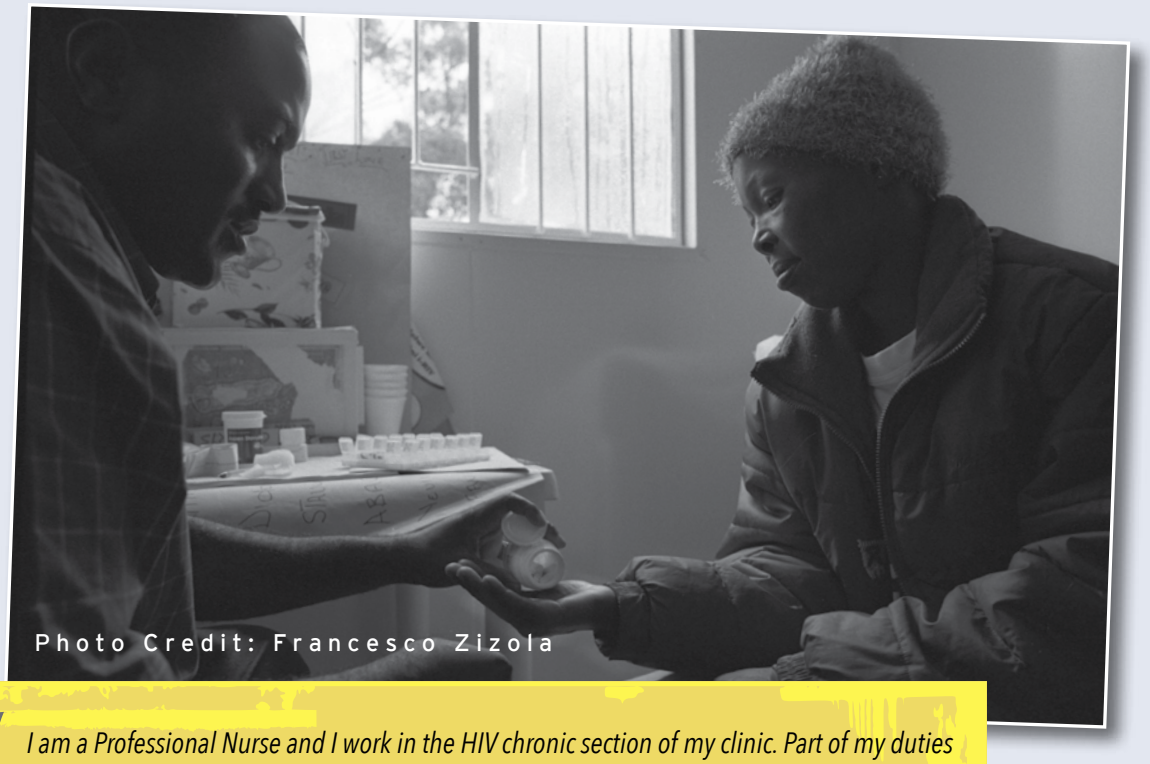


Photo Credit: Francesco Zizola

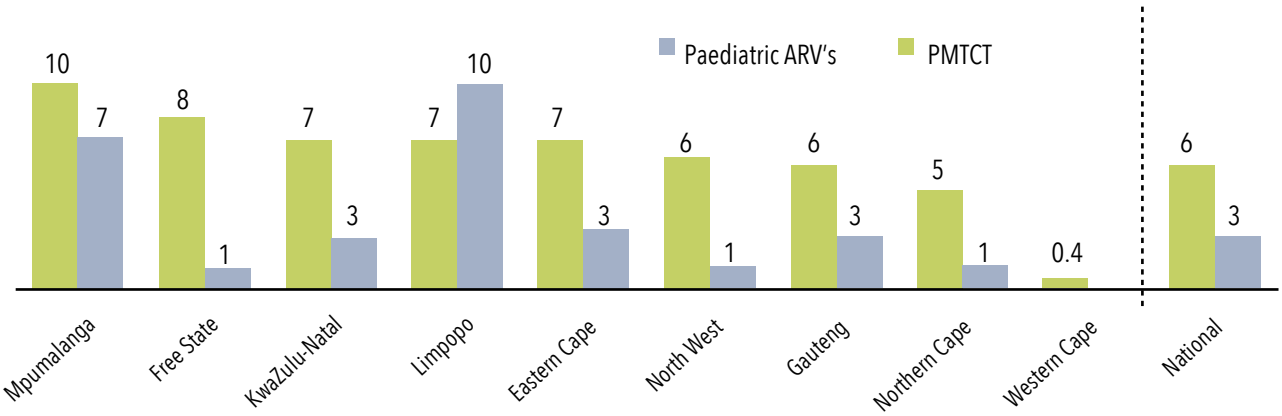
"I am a Professional Nurse and I work in the HIV chronic section of my clinic. Part of my duties is to dispense medication to patients. As a Professional Nurse who treats chronic HIV patients, I find stock outs to be very frustrating. Due to HIV been an infectious disease, patients are more prone to being infected with other infectious diseases making their immune systems vulnerable. For this reason it is important that patients are stable on their medication. Stock outs disrupt this process. This is frustrating because when I treat an HIV positive patient I cannot provide them with all the medication they need. This angers patients very much and means the patient is not stabilized on their treatment. Members of our HIV support group have contacted the Stop Stock Outs project before when they don't receive their medicine. One of these patients didn't receive her FDC treatment in January 2015. I give them the list of treatment out of stock. They tell me that the SSP is reliable when it comes to helping patients have access to their treatment. They trust the SSP"

- Professional Nurse, Johannesburg, Gauteng

Paediatric ARVs[3] and Prevention of Mother to Child Transmission (PMTCT) Stock Outs:

Nationally, 6% (154/2454) of facilities reported a stock out of ARVs required for the treatment of paediatric HIV and 3% (78/2454) of facilities reported a stock out of medication required for PMTCT. 190 paediatric ARVs were reported out of stock in 153 facilities, with most facilities in KwaZulu-Natal reporting more than 1 paediatric ARV out of stock (43 items from 24 facilities reporting a paediatric ARV out of stock). Mpumalanga had the highest proportion with 10% (20/205) of facilities reporting a stock out of paediatric ARVs.

Table 11: The proportion (%) of facilities by province for 2013 and 2014 reporting paediatric ARVs and PMTCT stock outs in the three month period prior to contact.



[3] *(ABC) Abacavir 60mg or 20mg/ml (3TC) Lamivudine (AZT) 150mg or 10mg/ml, (AZT) Zidovudine 100mg, (AZT) Zidovudine solution 50mg/5ml (D4T) Stavudine 15mg or 20 mg (EFV) Efavirenz 200mg (EFV) Efavirenz 50mg (LPV/r) Lopinavir/Ritonavir Aluvia 100mg/25mg tablets, LPV/r) Lopinavir/Ritonavir Kaletra 80/20mg/ml solution, (RTV)Ritonavir 100mg*

PMTCT stock outs were due to a national stock out of Nevirapine solution over that time period; a national circular was issued asking the facilities to switch to alternatives. Limpopo province reported the highest stock outs of ARVs used for PMTCT with 10% (26/266) of facilities affected, while the least affected provinces had less than 1% of facilities reporting such stock outs (Northern Cape, Free State and Western Cape).

The provincial variations indicate that stock outs of paediatric HIV and PMTCT medicines in less than 1% of facilities are achievable within the country.

Consequences/Impact: In 24% of reported paediatric HIV and PMTCT stock outs patients were sent home without treatment (high impact). 31% of paediatric HIV and PMTCT stock outs lasted more than one month, 51% between one to four weeks and 18% less than one week.

HIV positive children should not interrupt treatment, as it increases the risk of treatment failure and resistance. When children develop resistance against first line treatment, second line treatment options with paediatric regimens are limited. Effective PMTCT reduces the risk of transmission of HIV from HIV positive mothers to their children. Nevirapine solution is given to babies born from HIV positive mothers to lower the risk of transmission after birth while breastfeeding. Uninterrupted access to PMTCT treatment is therefore indispensable to give newborns the best possible protection against a life with HIV.

Photo Credit: Mariella Furrer

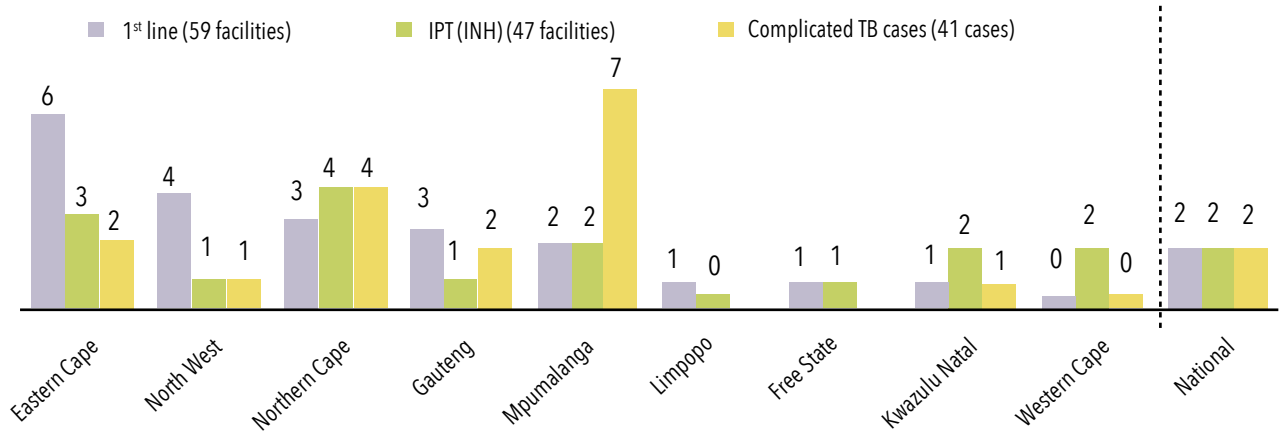
"Stock outs are a big inconvenience to the role I play. In February 2015, more than 14 drugs were out of stock at my facility including Amphotericin B, Sodium valproate, Ampicillin and Gliclazide. When stock outs occur, I cannot provide patients with the necessary treatment they need and secondly clinicians cannot perform their roles adequately. Stock outs do compromise patient treatment and sourcing alternative treatment can be time consuming, sometimes resulting in having to put everyday tasks on hold. The Stop Stock Outs Project assisted me by following up on treatment I ordered that was not being delivered to my facility.

My advice to clinicians who are faced with stock outs; don't give up searching, go the extra mile and keep trying to get treatment from other facilities or seek alternative treatment, keep knocking on other doors."

- Pharmacist in the Eastern Cape

TB[4] Stock Outs: Stock outs of TB treatment were reported less frequently than stock outs of ARV treatment. 6% (140/2454) of facilities reported a stock out of at least one TB medication. First line TB treatment was most often reported in Eastern Cape while in Mpumalanga, treatment for complicated TB was most commonly reported out of stock as illustrated in table 12 below. INH used as prophylaxis in the prevention of TB amongst HIV positive patients was the most common TB related medicine reported out of stock in 47 out of 2454 facilities.

Table 12: The proportion (%) of facilities by province for 2014 reporting TB stock outs in the three month period prior to contact.



Consequences/Impact

In 29% of facilities reporting TB stock outs patients were sent home without treatment. 33% of TB stock outs lasted more than one month, 42% between one to four weeks and 25% less than one week. The use of INH for the prevention of TB in HIV infected individuals is national policy. The stock of this drug is concerning as IPT is one of the pillars for TB control.

"As a Professional Nurse, I do patient consultations every day. I also order medication as we do not have an assistant pharmacist. As a Professional Nurse you cannot allow a patient to leave the facility without treatment. When the treatment a patient needs is out of stock, then alternative treatment needs to be identified and this can take a long time to do. I contacted the Stop Stock Outs Project, because I thought they could advise me on what to do in such a situation when Abacavir tablets for adults and Abacavir solution for children were out of stock in March 2015. I was informed that there was a national stock out of the treatment and was provided with a circular for alternatives to be used during the stock out. I also asked the Stop Stock Outs Project for help when medication was being phased out and we didn't know what to replace the medication with, like Adalat and Beclomethasone inhalation spray. It would be helpful if I could receive this information from the Department of Health. "

- Professional Nurse, Mpumalanga

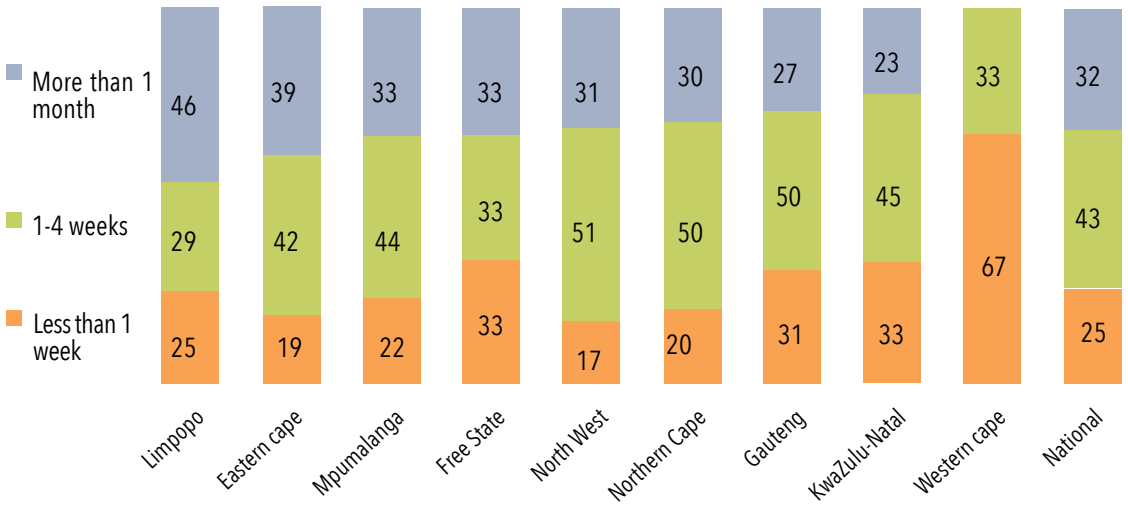
4. **1st line TB: (R/H) Rifampicine/Isoniazid 150/75mg -Rifinah/Rimactazid, (R/H) Rifampicine/IsoniazidH 300/150mg -Rifinah/Rimactazid, RH R/H) Rifampicine/Isoniazid 60/60mg (Rimactazid) for Children, (RHZE) Rifampicine/Isonaizid /Pyrazinamid/Ethambutol– Rifafour*
***IPT: (INH) Isoniazid tablets 300mg*
****Complicated TB: (PZAZ) Pyrazinamide 150mg, (Z PZA) Pyrazinamide 500mg, (E) Ethambutol 400mg, (Eto) Ethionamide, (Km) Kanamycin, (Lvx) Levofloxacin, (R) Rifampicin capsules, (R)Rifampicin suspension*

Length of ARV/TB Stock Outs

Respondents were asked about the length of time taken to resolve the incident of stock out incidents that occurred during the three month survey period. Of all stock outs reported nationwide, 32% of stock outs lasted more than one month, 43% lasted between one and four weeks and 25% were resolved in one week.

There was wide variation in the length of time it took for stock out cases to be resolved in different provinces as seen in Table 13.

Table 13: Proportion (%) of stock outs lasting i. more than one month, ii. one to four weeks or iii. less than one week. Results by province for 2014

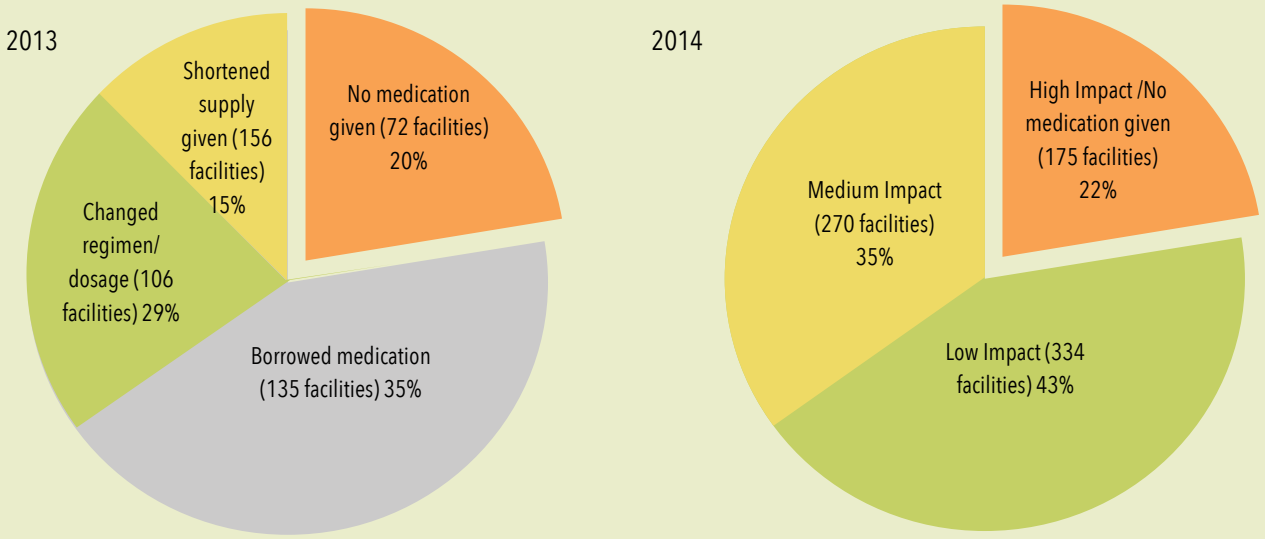


Impact on patients

In 2014, 22%(175/779) of ARV/TB stock outs, patients left the facility with NO medication (high impact). In 2013, 20% of ARV/TB stock outs led to patients leaving without their medicine. These patients will face the most severe consequences of stock outs. Individual patients can be forced to interrupt treatment which can undermine their adherence and lead to increased illness.

35% (270/779) of ARV/TB stock outs resulted in a medium impact stock out where the majority of patients left with a smaller supply. While these patients did not have a treatment interruption, having to return to the clinic more frequently adds to the patients' costs and may result in poor adherence. In 43% (334/779) of stock outs reported the facility was able to borrow medicine and the patient went home with their full supply of treatment (low impact).

Table 14: Reported impact of medicine stock outs upon patients. 2013 & 2014. (In 2013, fewer facilities provided information on impact.)



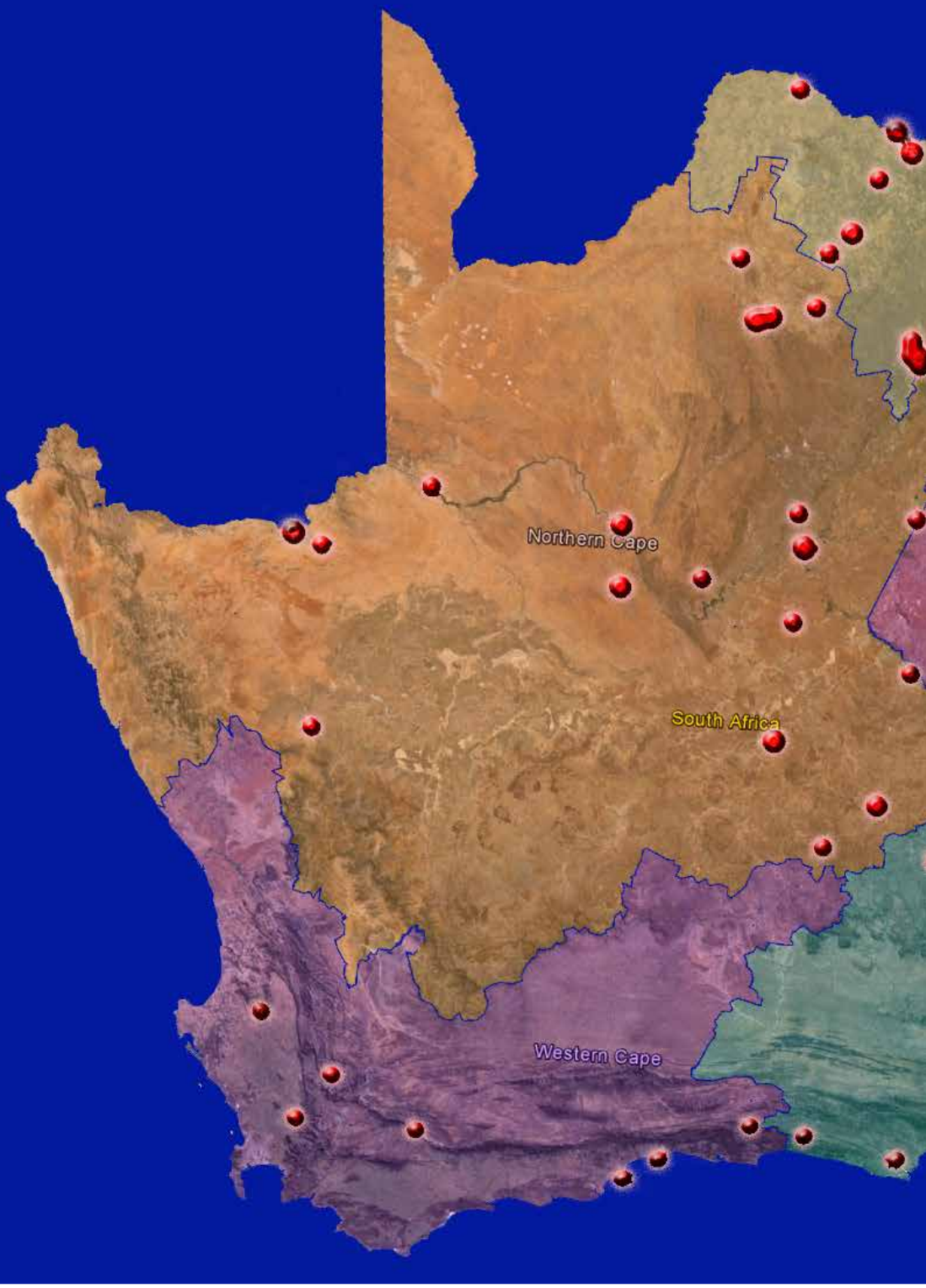
175 high impact stock outs, where patients left with no medication, were reported nationwide. The majority of high impact stock outs lasted over a month in 40% (70/173) of cases, one to four weeks in 37% (64/173) of cases and less than a week in 23% (39 /173) of cases (in two cases, length of stock out was not reported). The seven most common medicines where patients were sent home with no treatment were Zidovudine (AZT) 300mg, Abacavir (ABC) solution for children, Aluvia 200mg/50mg, Kaletra solution, Tenofovir (TDV), Isoniazid (INH) tablets, and Nevaripine solution.

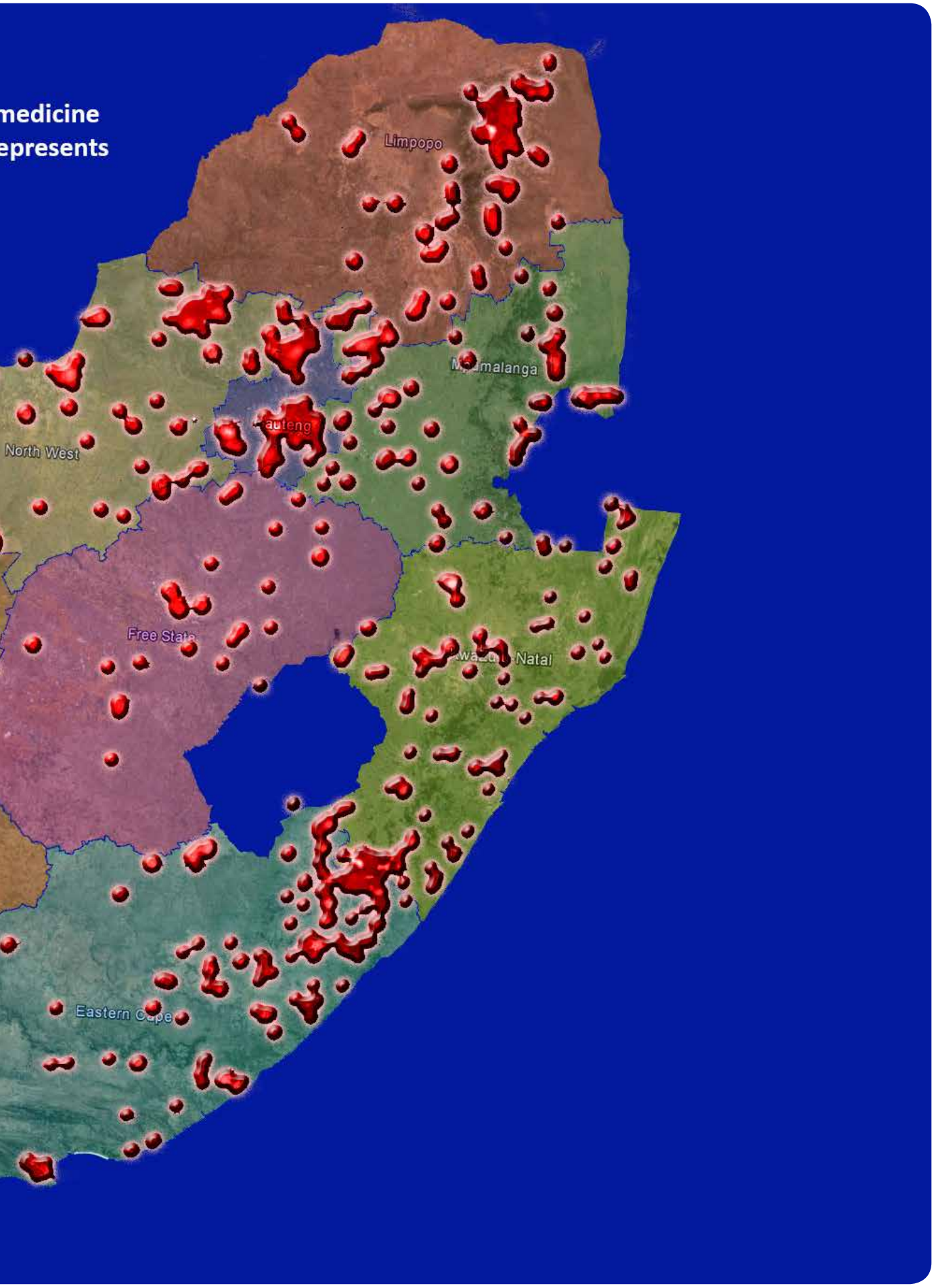
"I am a 40 year old mother of two, living in Nelspruit Mpumalanga. Originally home for me is in Pienaar Msogwaba. I work a part time job. In January 2010 I was diagnosed HIV positive. I started taking FDC in September of the same year; it is now 5 years that I am on this treatment. I also belong to a support group for people living with HIV at Eziweni clinic. It is here that I got information about the Stop Stock Outs Project from the chairperson of the group. Since August 2014 to February 2015, I have been receiving two months' HIV treatment. Getting two months' treatment is a problem for me, because I work a part time job and I have to use my second child's grant money for transport to get to the clinic. At least with 3 months' treatment I am able to extend my budget and only use the child's grant for what the child needs. Also, the nurse kept on telling me that the problem is with supply."

- Mother of two (40 years old) from Eziweni clinic, Nelspruit, Mpumalanga

2014 Reported ARV and TB Stock Outs

Map: Health facilities reporting a stock out of any ARV or TB
during the three month survey period in 2014. Each red dot r
an area where facilities reported a stock out.

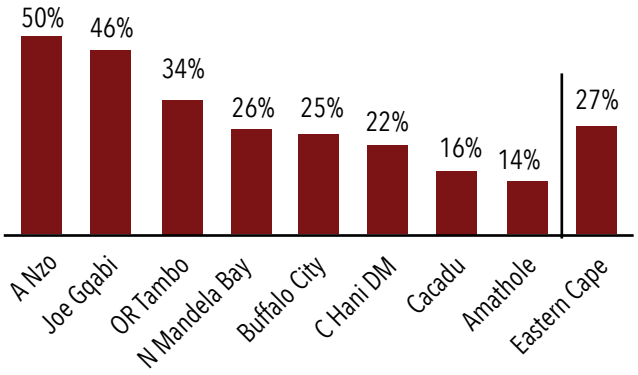



medicine
epresents
Limpopo
malanga
auteng
North West
Free State
Natal
Eastern Cape

Provincial Overview (ARV & TB)

Eastern Cape

District breakdown: % faciliities reporting ARV/TB stock out



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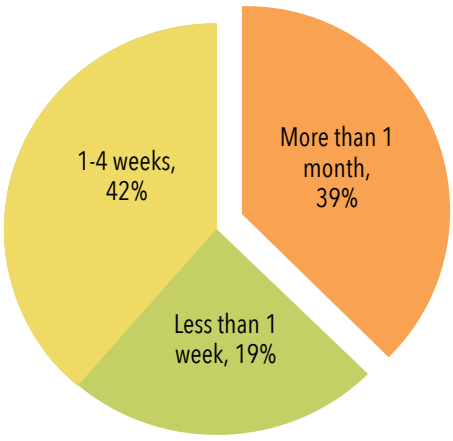
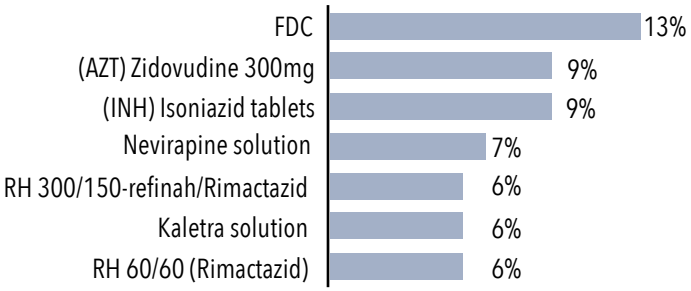
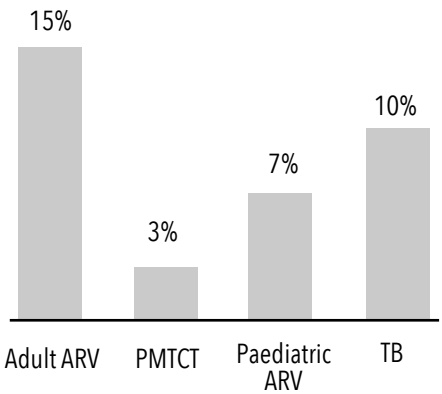


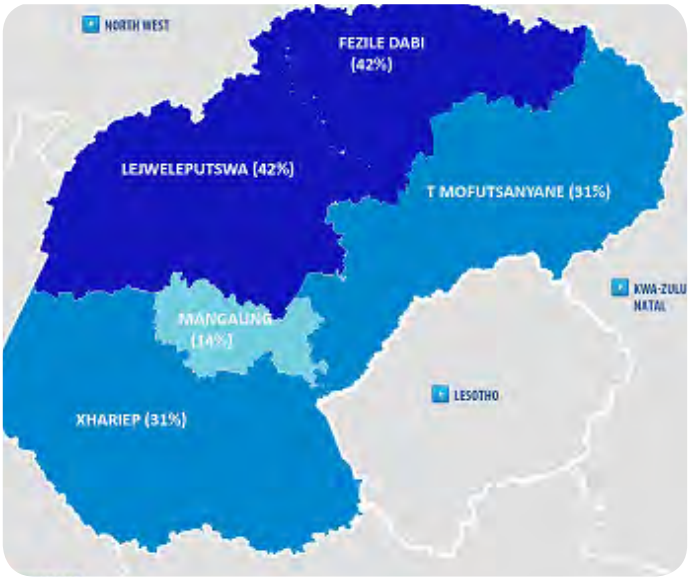
7 most commonly reported medicines



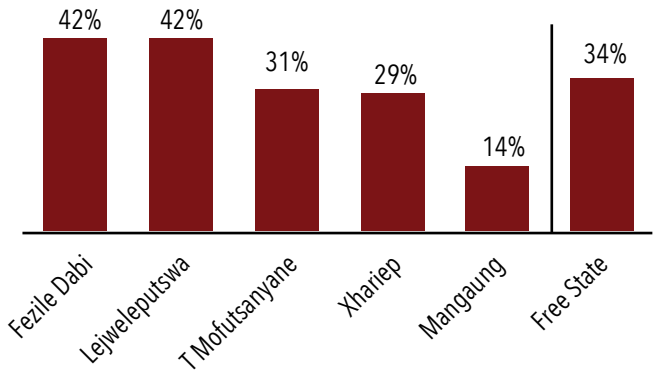
% facilities reporting stock out of:



Free State



District breakdown: % faciliities reporting ARV/TB stock out



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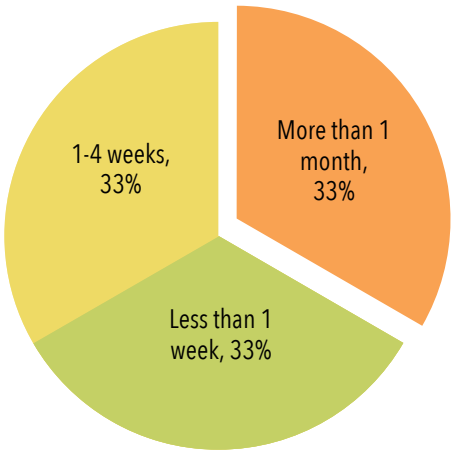
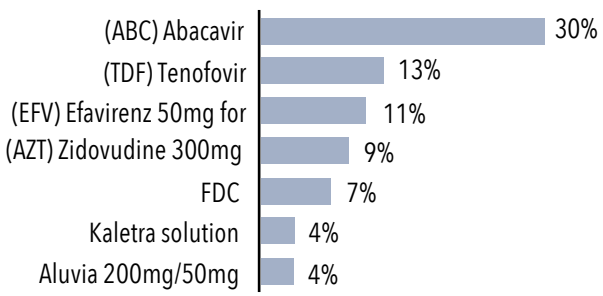
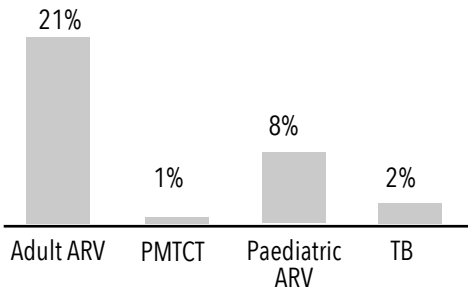


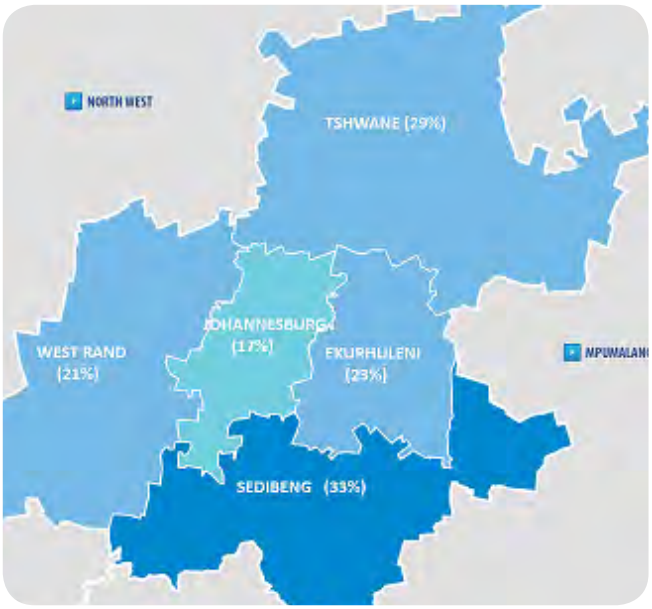
7 most commonly reported medicines



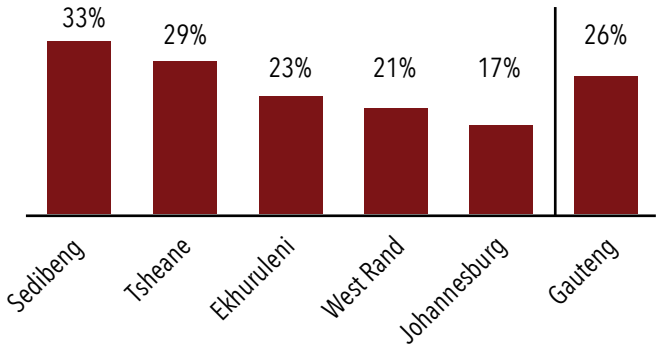
% facilities reporting stock out of:



Gauteng



District breakdown: % faciliities reporting ARV/TB stock out



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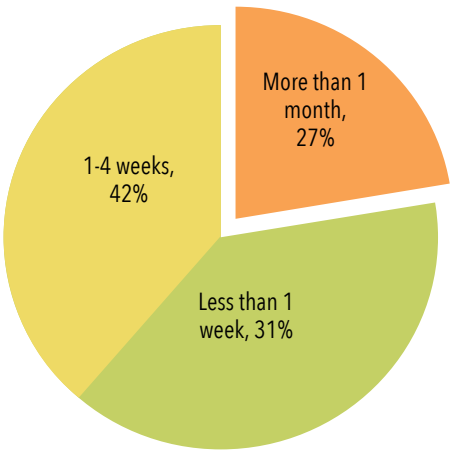
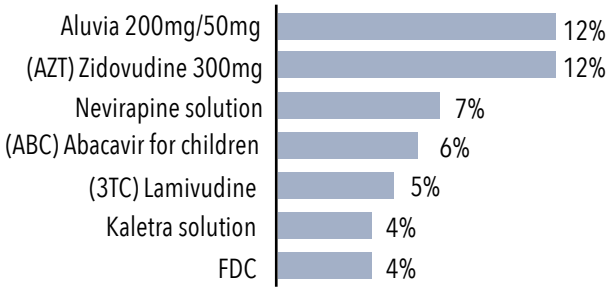
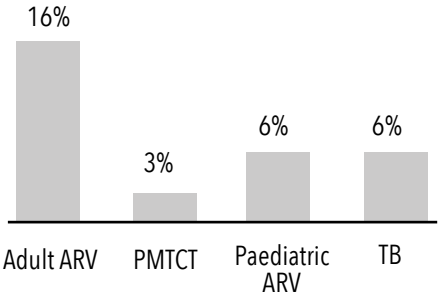


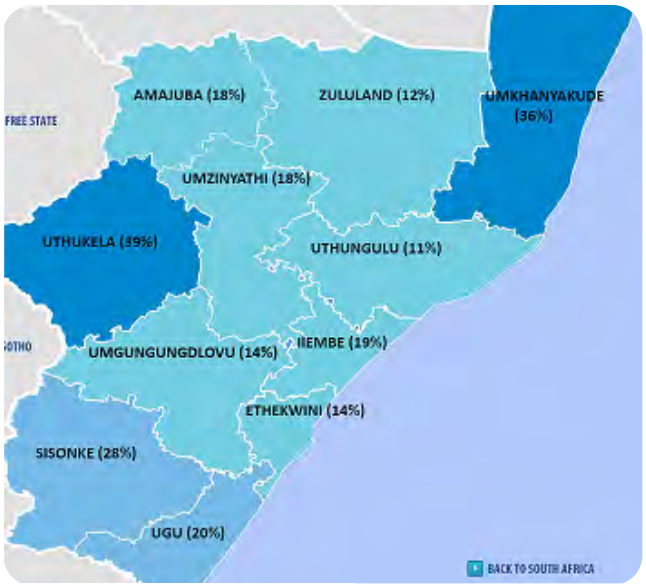
7 most commonly reported medicines



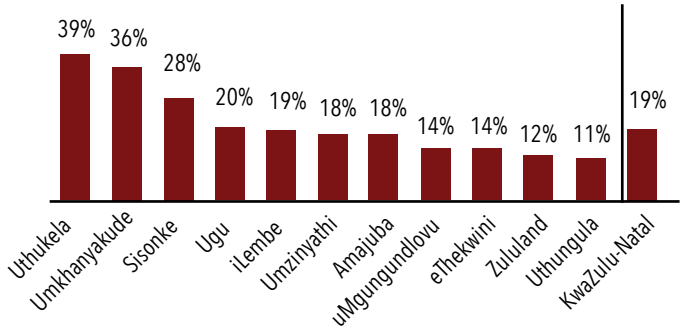
% facilities reporting stock out of:



KwaZulu-Natal



District breakdown: % faciliities reporting ARV/TB stock out



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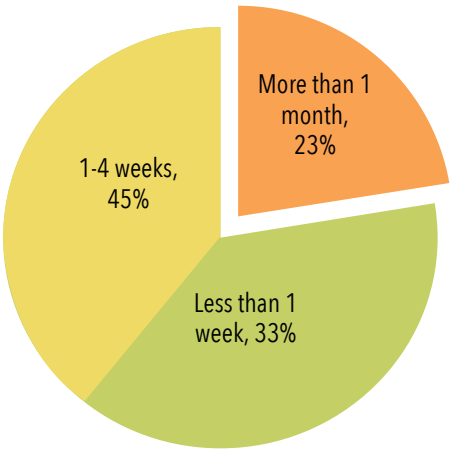
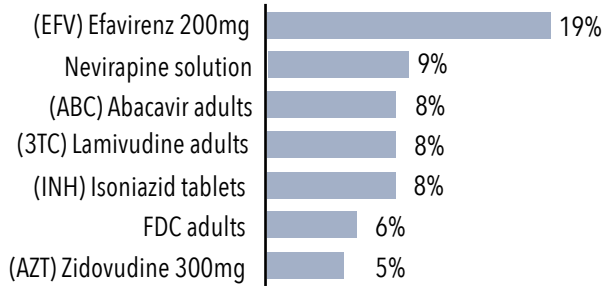
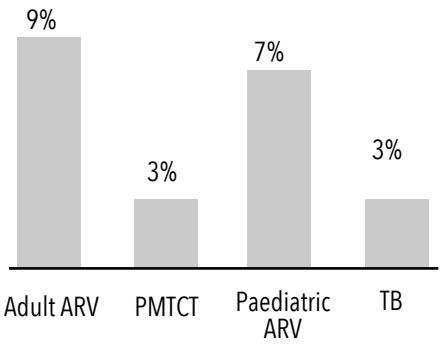


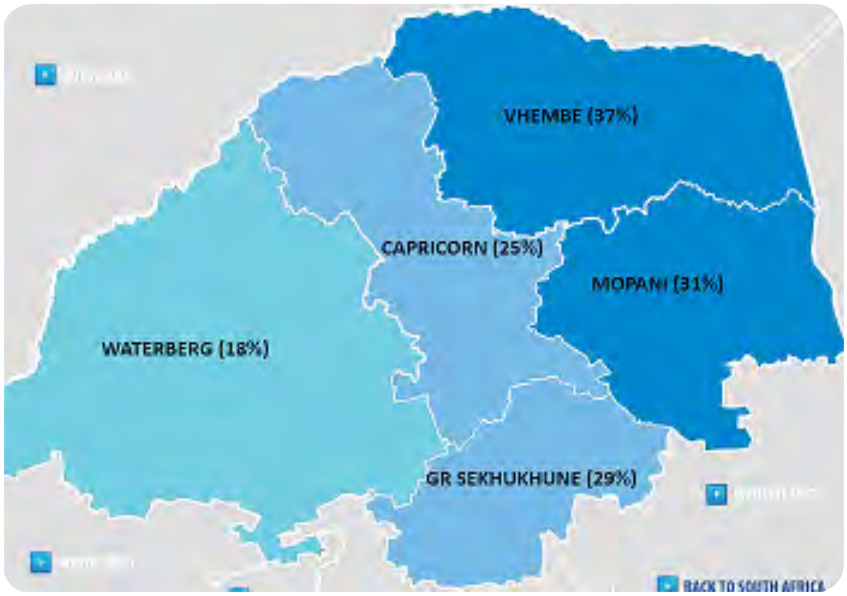
7 most commonly reported medicines



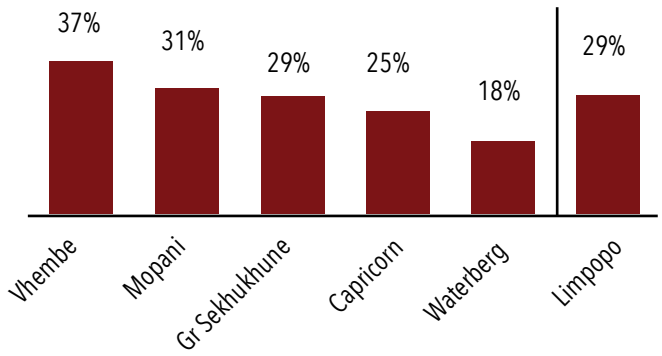
% facilities reporting stock out of:



Limpopo



District breakdown: % faciliities reporting ARV/TB stock out



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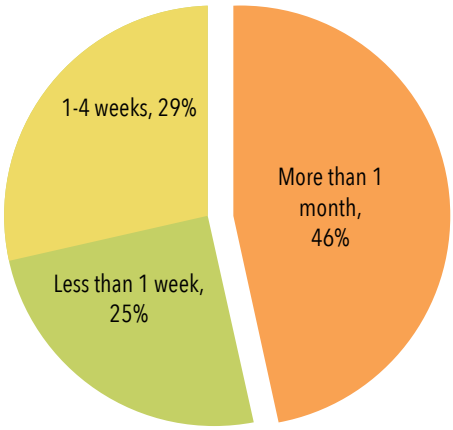
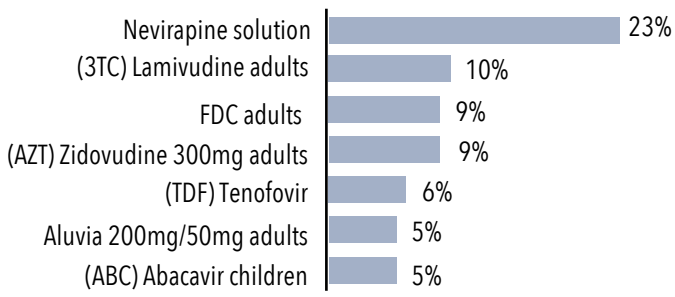
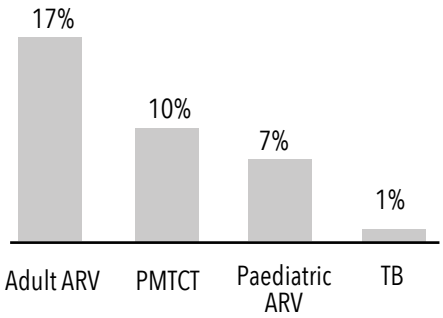


7 most commonly reported medicines

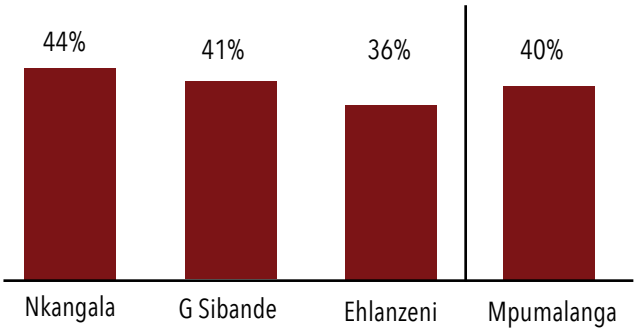


% facilities reporting stock out of:



Mpumalanga

District breakdown: % faciliities reporting ARV/TB stock out



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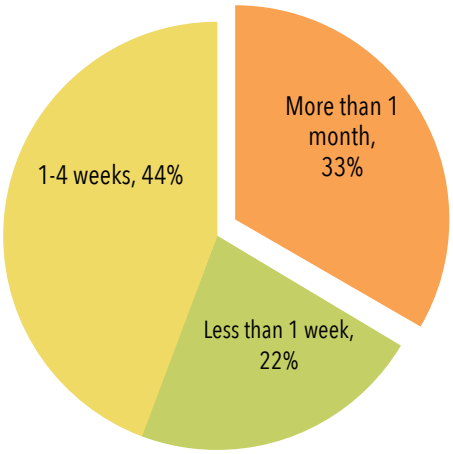
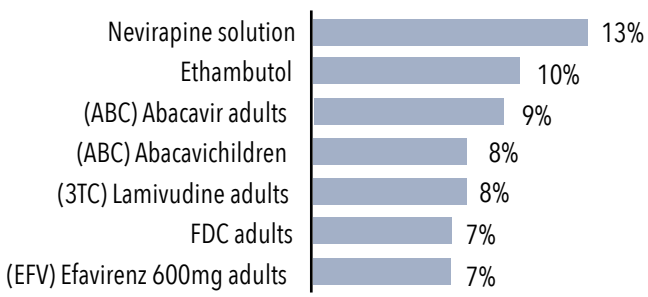
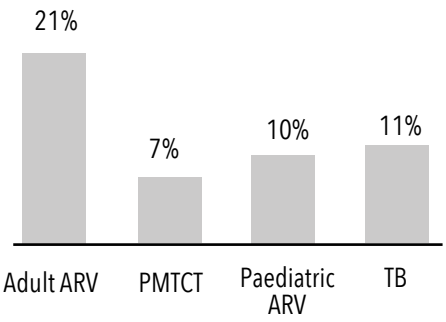


7 most commonly reported medicines

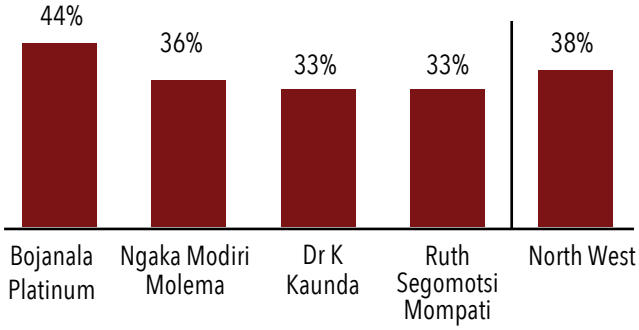


% facilities reporting stock out of:



North West

District breakdown: % faciliities reporting ARV/TB stock out



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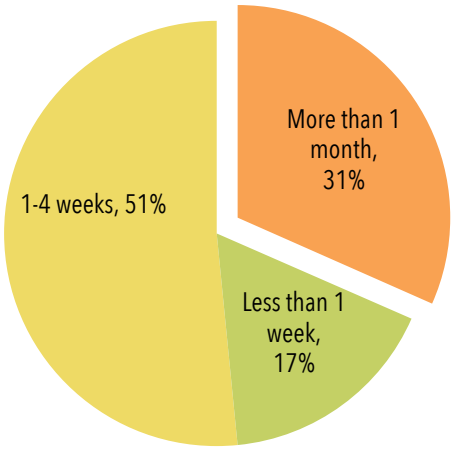
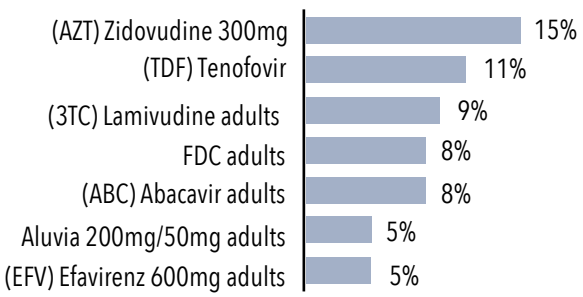
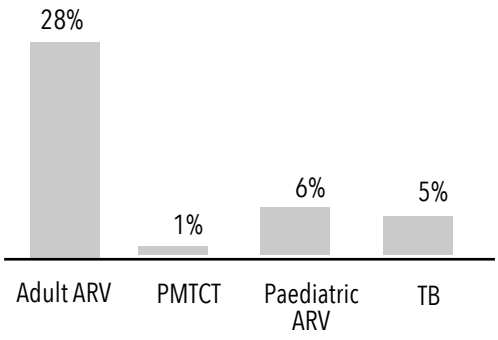


7 most commonly reported medicines

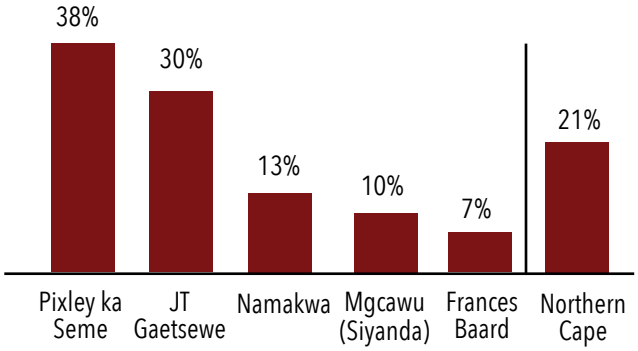


% facilities reporting stock out of:



Northern Cape

District breakdown: % faciliities reporting ARV/TB stock out



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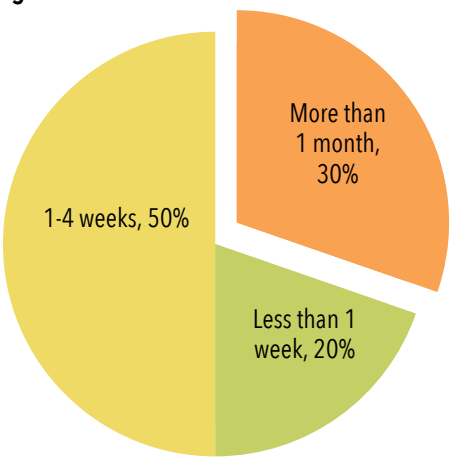
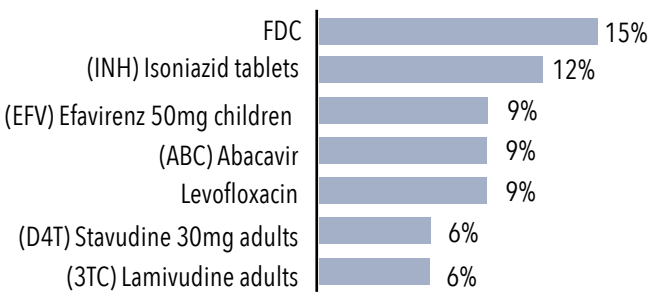
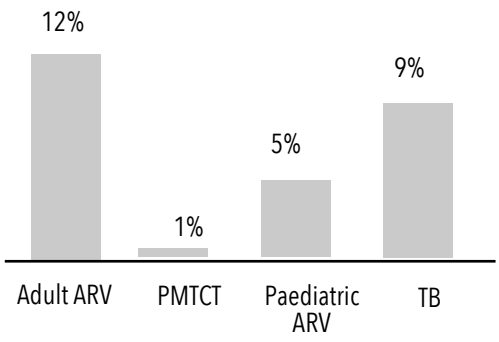


7 most commonly reported medicines

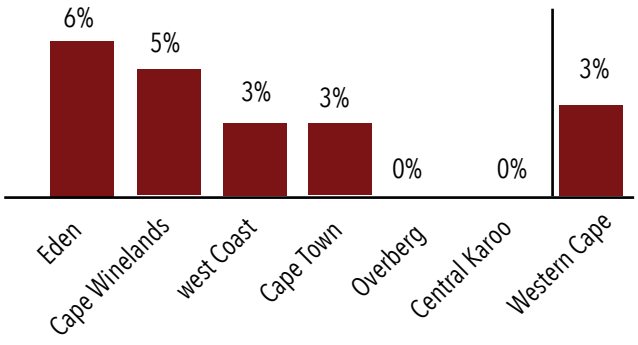


% facilities reporting stock out of:



Western Cape

District breakdown: % faciliities reporting ARV/TB stock out



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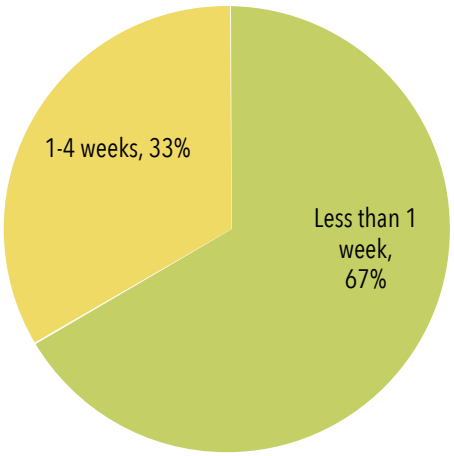
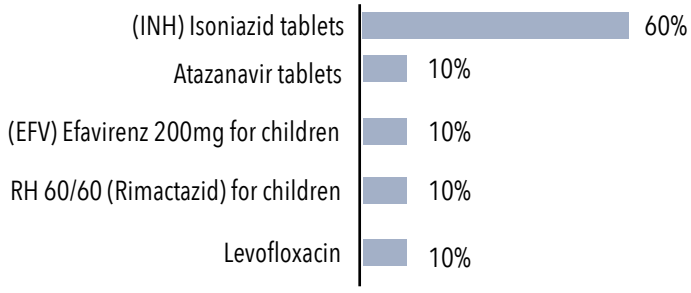
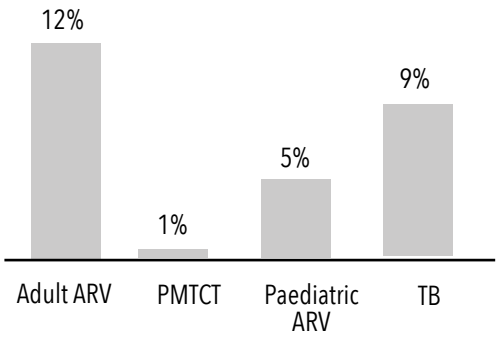


5 most commonly reported medicines



% facilities reporting stock out of:



Key Provincial Findings:

There have been differences observed between as well as within provinces, with some districts disproportionately affected by stock outs. Some of the key findings are highlighted below.

Eastern Cape:

- 50% (28/56) of facilities in Alfred Nzo and 46% (16/35) of facilities in Joe Gqabi districts reported ARV/TB stock outs while only 14% (13/96) of facilities in Amathole and 16% (8/50) of facilities in Cacadu districts respectively were affected during the same period.
- 39% of stock outs took over one month to resolve, the second lengthiest in the country.
- FDC was the most common medicine reported out of stock.
- 16% (79/501) of facilities reported Salbutamol inhaler (asthma) stock outs.

Free State

- Urgent assessment of and intervention by DoH in Fezile Dab and Lejweleputswa is needed where 42% of facilities in both districts report ARV/TB stock outs.
- Adult ARVs were the most commonly reported treatment out of stock.

Gauteng

- Second line ARVs were more often reported out of stock than first line ARVs.
- 42% of stock outs lasted between one and four weeks.

KwaZulu-Natal

- 36% (9/25) of facilities in Umkhanyakude and 39% (13/33) of facilities in Uthukela districts reported ARV/TB stock outs while only 11% (5/44) of facilities in Uthungulu and 12% (6/49) facilities in Zululand reported ARV/TB stock outs during the same time period.
- The highest number of paediatric ARVs reported out of stock occurred in this province.
- 22% (76/345) of facilities reported stock outs of Sodium Valproate tablets (epilepsy).

Limpopo

- 28% (67/238) of facilities reported Pentaxim vaccine stock outs.
- 31% (17/55) of facilities in Mopani and 37% (23/62) of facilities in Vhembe districts reported ARV/TB stock outs.
- 46% of stock outs reported lasted for over one month, the lengthiest in the country.

Mpumalanga

- 41% (23/56) and 44%(25/57) of facilities in Gert Sibande and Nkangala districts respectively reported a stock out of ARV/TB medicines during the survey.
- 33% of stock outs lasted over one month.
- 19% (35/188) of facilities reported stock outs of Salbutamol Inhalers (asthma).

North West

- A very significant increase in facilities reporting stock outs was noted in this province from 4% (8/182) in 2013 to 39% (86/222) in 2014.
- Assessment of the reasons for this drastic change should be done. Bonjanala district was the most affected area.
- Adult ARVs were the most commonly reported treatment out of stock. Ordering, forecasting and other procurement processes related to adult ARVs should be assessed.

Northern Cape

- 30% (6/20) of facilities in JT Gaetsewe and 38% (11/29) of facilities in Pixley ka Seme districts reported ARV/TB stock outs while only 7% (1/15) of facilities in Frances Baard and 10% (2/20) of facilities in Siyande reported ARV/TB stock outs
- 22% (21/96) of facilities reported Enalapril/ Perindopril tablets (hypertension) out of stock.
- FDC was the most common ARV reported out of stock.

Western Cape

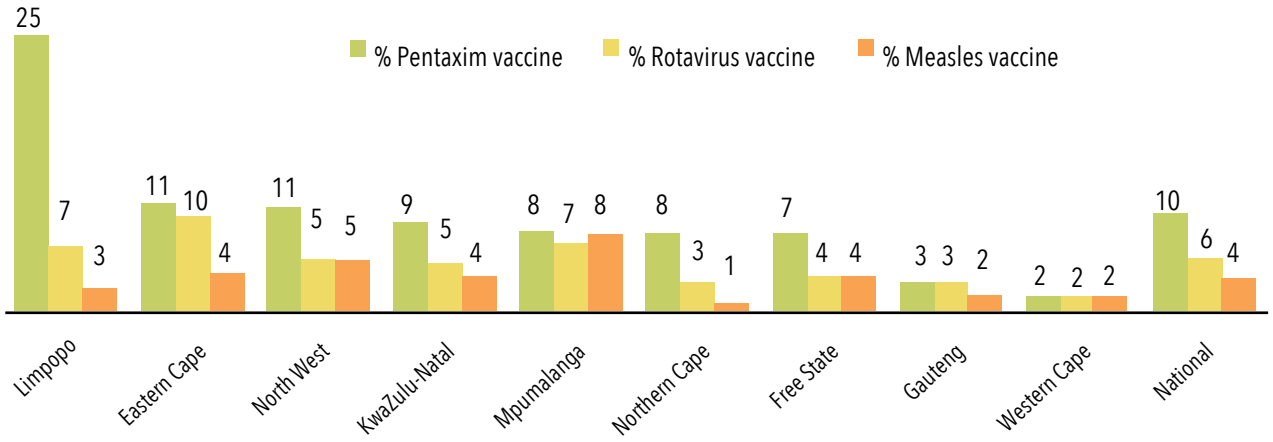
- 6% (3/53) and 4% (3/64) of facilities in Eden and Cape Winelands districts reported ARV/TB stock outs.
- Of all stock outs reported, INH stock outs made up 60% of the medicines out of stock.

Vaccine Stock Outs – Rotavirus, Pentaxim and Measles

Primary healthcare facilities were asked to report if Rotavirus, Pentaxim or Measles vaccines were in stock, out of stock or not stocked by the facility on the day of the call. 2157 PHC facilities provided responses about all three vaccines. Across the country, 11.5% (249/2157) of facilities reported at least one vaccine out of stock.

Pentaxim was most frequently reported out of stock in 10% (219/2194) of facilities. 6% (122/2198) of facilities reported a Rotavirus stock out and 4% (78/2198) a Measles vaccine stock out. . Pentaxim stock outs occurred most frequently in Limpopo, where 28% (67/238) of facilities were affected. Rotavirus stock outs were most often reported in the Eastern Cape, where 10% (42/428) of facilities were affected. Measles vaccine stock out occurred most frequently in Mpumalanga, where 8% (15/182) of facilities were affected.

Table 15: The proportion (%) of facilities by province for 2014 reporting Pentaxim, Rotavirus and Measles vaccine stock outs on the day of the call (ongoing).



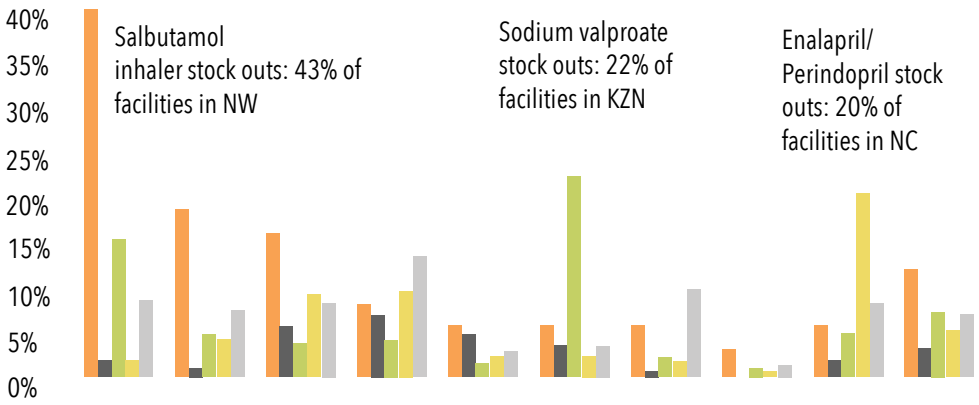
Pentaxim is a combination vaccine for the immunisation of infants after 6 weeks of age. It protects against diphtheria, tetanus, pertussis, poliomyelitis and invasive infections caused by Haemophilus influenza type B. It is given three times in a primary vaccination series at 6, 10 and 14 weeks of age and a 4th dose as a booster in the 2nd year. A vaccine stock out could be responsible for anything from increased numbers of unnecessary hospital admissions for severe cases to outbreaks of preventable diseases, putting an immediate strain on existing health services and causing death and disability in the long term.

OTHER ESSENTIAL MEDICINE STOCK OUTS – Salbutamol Inhaler (asthma), Metformin Tablets (diabetes), Sodium Valproate Tablets (epilepsy), Enalapril/ Perindopril Tablets (hypertension), Ceftriaxone Injection (antibiotic)

Five other essential medicines that are required at primary healthcare level were included in the survey: Salbutamol Inhaler (asthma), Metformin Tablets (diabetes), Sodium Valproate Tablets (epilepsy), Enalapril/Perindopril Tablets (hypertension), Ceftriaxone Injection (antibiotic) for intravenous or intramuscular use. As with vaccines, respondents were asked to report if the medication was in stock, out of stock or not stocked by the facility on the day of the call.

Salbutamol inhaler was most often reported out of stock nationally in 12% (287/2426) of facilities. Sodium valproate tablets and Ceftriaxone injection were the second and third most commonly reported items out of stock with 7% of facilities reporting both out of stock nationally. Sodium valproate stock outs primarily occurred in only two provinces, 22% (78/354) of facilities in KwaZulu-Natal and 15% (21/140) facilities in North West with a stock out. Ceftriaxone injection was most often out of stock in in 13% (35/264) of facilities in Limpopo and 10% (27/280) of facilities in Gauteng.

Table 16: The proportion (%) of facilities by province for 2014 reporting five other essential medicine stock outs on the day of the call (ongoing).



	North West	Mpuma-langa	Eastern Cape	Lim-popo	Free State	KwaZulu-Natal	Gauteng	Western Cape	Northern Cape	National
% Salbutamol Inhaler	43%	19%	16%	8%	6%	6%	6%	3%	3%	12%
% Metformin Tablet	2%	1%	6%	7%	5%	4%	1%	0%	2%	3%
% Sodium Valproate Tablet	15%	5%	4%	4%	2%	22%	2%	1%	5%	7%
% Enalapril/Perindopril Tablet	2%	4%	9%	9%	2%	2%	2%	1%	20%	5%
% Ceftriaxone Injection	8%	7%	8%	13%	3%	4%	10%	1%	8%	7%

The treatment of chronic non-communicable diseases such as asthma, diabetes, hypertension and epilepsy also depends on patient adherence on the one hand and a reliable, ongoing supply of medication on the other, to prevent morbidity and mortality due to these diseases. In some cases such as Enalapril/Perindopril (antihypertensive) and Sodium valproate (anti-epileptic), these drugs may be substituted with others at primary healthcare level if there is a stock out, but there is no substitute in the public sector for Salbutamol inhalers dispensed to asthmatic patients for acute relief of a tight chest. When patients have no access to first-line medication, they may either go without treatment causing their disease to become uncontrolled or they are given substitutes which give rise to additional risks and side-effects. Both of these consequences result in increased morbidity and mortality due to chronic diseases.

Ceftriaxone is an injectable antibiotic that can be used intravenously or intramuscularly as first-line treatment primarily for bacterial meningitis, severe pneumonia and sepsis, as well as first-line treatment for a number of childhood infections according to the South African Integrated Management of Childhood Infections (IMCI) protocol. In certain cases, Ceftriaxone can be substituted with another antibiotic if available, but the substitute is unlikely to be as effective.

Key findings

The objective of the survey is to determine the extent of stock outs in order to bring the problems faced by patients and healthcare workers alike to those responsible for their resolution. While recommendations on how to fix ongoing problems are not the primary objective of this report, there are some overlapping issues that might contribute to sustainably resolving stock outs.

Wide variation amongst provinces, districts and facilities

- This survey highlights the wide variation in types of medicines out of stock, length of stock outs and patient impact both between and within provinces. The diffuse nature of the situation indicates that there are complex underlying reasons that differ by province and even district. Hence analysis of root causes and identification of solutions are needed at all levels of the supply chain, from facilities, to district teams, to provincial and national level. Co-ordinated efforts are necessary, especially between district health and pharmaceutical services.
- Stock outs vary from facility to facility. Root causes analysis should be focused at facility level. District health and pharmaceutical services teams should support facilities with supply processes such as ordering and forecasting.
- Urgent action is needed in areas most severely affected.
- Improved visibility of medicines at facility level is required.
- It is critical to assess and identify what factors contribute to and prevent stock outs in different areas. Examples of these key factors include adequate and trained human resources, district support with ordering and forecasting, on time payment of manufacturers, and accountable and responsive facility, district and provincial managers.
- The varied results of the survey demonstrate that well-functioning systems are possible in South Africa and targets should be set against those standards.
- Even though Pentaxim, Measles and Rotavirus vaccines are supplied by the same manufacturer, the different proportion of stock outs between the different vaccines is surprising and should be investigated.

Urban and rural areas

- There was a differential distribution of the stock outs between rural and urban areas.
- Rural districts in KwaZulu-Natal and Eastern Cape are notably affected, as well as many urban districts in Free State, Mpumalanga and North West
- Rural areas are particularly hard hit as it is already hard to ensure an uninterrupted supply to them. The scale of the number of patients in urban areas also has a marked impact on stock outs.
- Assessing various features of these areas and facilities, such as their delivery and transport system, varied demand for services, human resources capacity, storage space for medicines and buffer stocks, stock management systems and infrastructure (e.g. phone lines, fax machines to place orders) can lead investigators to root causes leading to effective solutions.

Prioritization

- The number and duration of high impact stock outs (where patients leave without any medication) should be minimized. DoH can issue timely communication (circulars/memos) for alternative medicines and ensure consequences for non-compliance by manufacturers are implemented. Facilities can switch to a different dosage of the same medication (e.g. provide two 150mg tablets to achieve a 300mg dose), monitor stock levels closely, place emergency orders, borrow medication from other facilities, and ensure they escalate stock outs to district teams, depots, and province.
- The long duration of the stock outs in certain provinces could be indicative of a need for more effective mechanisms to react quickly to stock outs. In all provinces, except for Western Cape, more than 20% of stock out cases lasted for over one month.

Strengths and Limitations of the Survey

This is the largest survey to date on the extent of stock outs in the South African antiretroviral treatment programme. In 2014, this survey made contact with 77% of 3732 identified facilities and a high respondent rate of 87% nationwide, ensuring robust results.

A major constraint of the survey is that respondents can only report on stock outs they are aware of. Ascertainment bias may exist in this type of survey and tends to underestimate the true proportion of stock outs, as staff are more likely to underreport stock outs. Secondly, often in surveys of healthcare staff, individuals wish to create a favourable impression of where they work. If this occurred in this survey it would lead to an underestimation of the true extent of stock outs. Additionally, a consequence of a lower response rate in Free State is that results from the province may also underestimate the problem as only 63% of Free State respondents agreed to provide information.

Finally, as individual recall of when the stock out began and when it was resolved are likely to be more prone to error. The estimated duration of stock outs should be seen as indicative rather than exact. However, the survey asked participants to provide stock outs at two different time points, the day of the call and in the past three months. Using too short a time frame would underestimate the problem and using too long a time frame could overestimate the problem. The two time points used in this survey were stock outs existing on the day of the call (ongoing) and stock outs occurring during the three months prior to contact, to provide a range of outcomes.

Analysis & Discussion

An ineffective supply chain can weaken the entire health system's ability to provide effective health care. This survey identified a high proportion of facilities, one in four, with stock outs of any ARV and/or TB medicines. These stock outs were unevenly distributed across provinces and districts, highlighting areas necessitating urgent corrective action.
This was a large survey involving facilities that are responsible for providing medicines to South Africans. In 2014, 25% (614/2454) of facilities contacted had a stock out of ARV/TB medicine in the three months prior to contact. This is similar to the findings in 2013, when 21% (459/2454) facilities contacted had a stock out in the same time period.

Stock outs of fixed dose combinations (FDCs) were less frequent in 2014, improving compared to 2013. While 75/614 of facilities reported FDC stock outs, only a few sent patients home with no medicine or a smaller supply. However, there were frequent stock outs of other 1st line HIV medicine, 2nd line HIV medicine, paediatric HIV medicine, isoniazid preventive treatment (IPT) for TB, and medicine for complicated TB. Patients who require medicine other than FDCs are often already more vulnerable because they have clinical complications such as resistance, side effects, and/or other co-existing conditions such as renal failure, or because they are children or adolescents. They already have a limited number of options for effective treatment.

In 20% of the reported stock out cases in both 2013 and 2014, patients were turned away from the facility without medication. These patients are the most affected by the adverse impact of stock outs. Facing stock outs, many patients will be at risk of developing and transmitting drug resistance, interrupting and even defaulting treatment, and ultimately increased risk of illness and death. Stock outs can also be demoralising for the health care workers who have to turn patients away without treatment, and determine who does or does not get treatment or how much treatment each patient receives. However, 87% of healthcare workers contacted were willing to participate in this survey, suggesting that health staff in facilities recognize the problem of stock outs and are willing to collaborate to solve it.

Collaboration between DOH and SSP

The aim of this report is to continue to act as a constructive dialogue between civil society, the Department of Health and its partners. This report assists in identifying gaps in healthcare delivery, and as a result leads investigators to diagnosing causes and implementing solutions. This report is meant to provide warnings for areas that require further assessment.

Collaboration between NDoH, Provincial HODs and HOPS was established after the survey was conducted; diagnosis of causes and development of action plans are underway.

- NDoH: In December 2014, NDoH and SSP reviewed results of this survey
- Gauteng: In January 2015, the SSP and the MEC for Health, Head of Department (HOD), Head of Pharmaceutical Services (HOPS), Depot Managers, Chief Directorate of District Health and District teams engaged in discussion of the results of this survey. A further meeting was held with the Sedibeng pharmaceutical services team. Gauteng's HOD and MEC have committed to providing narratives identifying root causes, factors that prevent stock outs in their province and action plans as part of this report.
- Free State: In February 2015, Free State, the SSP, the HOD and HOPS have met to review the results of this survey.

FSDoH had committed to providing narratives identifying root causes, factors that prevent stock outs in their province and action plans as part of this report. However, in April 2015, FSDoH opted not to provide this and we urge for this and we urge for vital corrective action to take place.

- Heads of Pharmaceutical Services (HOPS): In March 2015, SSP and HOPS met to review the results of this survey.
- Northern Cape: In March 2015, the SSP, HOPS, and district pharmacists of Northern Cape engaged in discussion of the results of the survey. Pharmaceutical services and district health services have identified some of the contributing factors to stock outs and have committed to providing narratives identifying root causes, factors that prevent stock outs in their province and action plans as part of this report.
- North West: In March 2015, the SSP, HOD, HOPS and district pharmacists of North West engaged in discussion of the results of the survey. The province has identified some of the contributing factors to stock outs and have committed to providing narratives identifying root causes, factors that prevent stock outs in their province and action plans as part of this report.
- Western Cape: In April 2015, the SSP and pharmaceutical services communicated on the results of the survey, and the province has committed to providing a narrative to this report.
- Limpopo: In April 2015, the SSP, the HOD's office, HOPS and medicine monitor of Limpopo engaged in discussion of the results of the survey. The province has identified some of the contributing factors to stock outs and has committed to providing narratives identifying root causes, factors that prevent stock outs in their province and action plans as part of this report.

At the time of the release of this report, Gauteng, Limpopo, North West, Northern Cape and Western Cape have included responses as part of this report.

We applaud their committed action plans to resolve stock outs and have included the action plans in this report.

Strong commitment and political will is necessary for the implementation of these action plans. Despite repeated attempts to discuss the findings of the report and plans to resolve stock outs, the Eastern Cape, KwaZulu-Natal and Mpumalanga provincial departments of health have not responded. Free State has opted not to provide an action plan. We call on these provincial departments to follow the example set by the national department of health and the other provincial departments and engage constructively with civil society to implement action plans to ensure that their facilities have the medicines patients require.

Conclusions

The ultimate consequence of a malfunctioning supply system is human loss and illness. Stock outs can lead to unnecessary suffering, costly resistance, and in the worst cases, death.

In South Africa, stock outs remain one of the key constraints in the delivery of effective healthcare across the country with 21% of facilities in 2013 and 25% of facilities in 2014 continuing to reporting stock outs of HIV/TB medicines. Persistence of stock outs over time is indicative not just of the complexities of the health system but also of the need for urgent co-ordinated intervention at different levels of the supply system to prevent it. Supply chain systems are an ecosystem of people, activities, information, resources, depots and facilities that have to come together to ensure the delivery of medicine to patients. Improvement of the supply chain will only be realized with co-ordinated efforts between district health teams, pharmaceutical services, and provincial and national health departments.

In order to address stock outs at the national and provincial level, a concrete high level strategy, with clear timelines, is needed. This strategy needs to include:

1. Identifying the problem and causes
2. Creating action plans and timelines
3. Implementing the action plans
4. Measuring and evaluating progress
5. Effective and immediate communication through this process, both up and down, between national, provincial, district and facility level staff, health care workers and most importantly, patients. The need for action to ensure adequate access to medicine in South Africa is necessary now more than ever. Bold and concerted effort is required to create a system that is responsive to the needs of the patients.

   The need for action to ensure adequate access to medicine in South Africa is necessary now more than ever. Bold and concerted effort is requiredto create a system that is responsive to the needs of the patients.

Recommendations and way forward:

A. Urgent attention is needed in seven districts and two provinces.

Action plans are needed that:

1. Address stock outs in the most affected provinces and districts in the immediate term
2. Put into place functional and effective emergency mechanisms in provinces to react quickly when stock outs do occur

During the survey period, **North West and Mpumalanga** were the most affected provinces, both with nearly **40%** of facilities reporting an ARV or TB stock out during the survey. Additionally, the **seven most severely affected districts** with over 40% of facilities reporting ARV/TB stock outs that require urgent ongoing attention are:

1. Joe Gqabi 46% (16/35), Eastern Cape
2. Alfred Nzo 50% (28/58), Eastern Cape
3. Bojanala 44% (34/77), North West
4. Nkangala 44% (25/53), Mpumalanga
5. Gert Sibande 41% (23/56), Mpumalanga
6. Lejweleputswa 42% (13/23), Free State
7. Fezile Dabi 42% (11/26), Free State

B. Establishment of national minimum standards necessary

Provincial and National health departments must work together to establish and implement **national minimum standards for supply chain management and resolution of stock outs** in all provinces.

C. Provincial Action Plans are required

Provinces will need to assess, investigate and commit action plans to address stock outs. These action plans should consist of strategies that include:

1. Surveillance and increased visibility of stock outs
2. Rapid response mechanisms for stock outs
3. Governance, accountability and transparency along the supply chain
4. Supply chain strengthening and procurement reforms

Provincial Department of Health Narratives and Action Plans

This report has served as part of a productive dialogue between civil society, patients and the Department of Health. Identifying and assessing problems in healthcare delivery is the first step to finding solutions and, in turn, improving quality of care.

As part of this collaboration, Gauteng, Limpopo, North West, Northern Cape and Western Cape have committed narratives and action plans to improve access to medicines for all patients.

GAUTENG PROVINCE
HEALTH
REPUBLIC OF SOUTH AFRICA

Gauteng

Report on the stock out situation within the Gauteng Province

The following have been identified as some of the main reasons for medication stock outs within the Province:

1. **Forecasting (pre-tender)**

   - Only uses consumption based data from the Medical Supplies Depot and the Provincial Medicine Procurement Unit; patient treatment information is not included
   - ARV regimen statistics collected by the district health information system is inadequate for use in quantification process. It does not differentiate if the regimen 1 is the Stavudine, Tenofovir or fixed dose combination regimen.
   - Time lapse between guideline changes and the tendering process sometimes creates a gap in making the new guideline medicines available on tender. Thus, procurement is on a quotation system which is time consuming and does not guarantee continuous availability of the required volumes.

2. **Contract management**

   - The time taken to switch and stabilize patients on the new therapeutic classes varies from patient to patient. The volume of the uptake of the new medicines whilst reducing the stock levels of the old medicines has not yet stabilized
   - some EML items have been advertised on the tender and no supplier tendered for the bid and therefore the required volume of the medication cannot be guaranteed

3. **Demand planning and demand planning systems (ICT)**

   - Demand planning is inaccurate without a reliable inventory management system; fortunately there is a standardised inventory management system that is being installed in all the institutions and the situation should stabilise soon

4. **Supplier issues**

   - Non adherence to the contractual lead times
   - manufacturing challenges due to the fluctuation in the availability of the active pharmaceutical ingredient (API). This has a global impact as reflected on the Food and Drug administration (FDA) website.

Strategies have been identified by the Province to minimise out of stocks at institutions and facilities. The strategies are included in the action plan on the next page:

Main causes of stock outs	Strategies being implemented	By whom	By when
Forecasting and demand planning	• Setting up of a committee with all relevant stakeholders to input into the quantification of medication for the province. Patient information will thus be included. • Information collection tool on the DHIS to be reviewed so that it accurately identifies the different regimens in use. • Continue with the installation of a standardised inventory management system at all hospitals and district pharmacies	MSD	As per NDOH tender schedule 80% of facilities to be using the standardised inventory management system by end of financial year
Contract management	• Advertise and award provincial tenders to improve on the supply chain processes involved in the procurement of items not on national contracts	MSD	June 2015
Supplier issues	• All contracted supplier issues and poor performance to be escalated to the main contract management unit at NDOH for inclusion in the national medicine shortage website and appropriate intervention • Strengthen the implementation of the penalty clause in accordance with the general conditions of contract • Strengthen operating the follow up centre at the medical supplies depot to engage suppliers on adherence to contractual lead times	MSD	ongoing

LIMPOPO
PROVINCIAL GOVERNMENT
REPUBLIC OF SOUTH AFRICA

Limpopo

Department of Health Pharmaceutical Services
Date: 2015.04.28

From: The Office of Senior Manager Pharmaceutical Services
To: Stop Stock Outs Project

Background

1. Limpopo province has a central provincial depot that serves 461 clinics and 42 hospitals
2. Facilities follow an ordering and delivery schedule prepared by the depot
3. Hospitals order on weekly basis and orders are delivered exactly a week later
4. Clinics now order stock directly from the depot on a scheduled roster twice in a month. Clinic orders reach the depot via a supporting hospital that should assist with order screening. Distribution of medicines from the depot is outsourced.
5. Our province has 5 Districts with long distances between facilities and depot
6. Clinics lack electronic ordering systems (Orders done manually)
7. There is a severe inadequacy of pharmacy personnel at PHC level
8. Middle management (supervisor) posts not filled (This imply there is a void between Assistant manager and junior staff)
9. The province performs two-weekly stock availability monitoring through RAQA (Regulatory Affairs and Quality Assurance) office

Root Causes

The causes of medicines stock outs are very complex and have many contributing factors. In some instances one factor and in other instances a combination of factors are applicable. Limpopo department is in no denial that there are challenges with regards to availability of medicines at facilities. Despite the challenges that there are, as Limpopo province, we are making advances in small pockets and once all complete we should see a turn around. Even where systems are put in place, the issue of stock outs is further compounded by its very dependence on human factor for reporting as well as for prevention thereof.

As reported above, the Limpopo department of health monitors medicines availability and we found it disturbing in many instances that the stock reported as out of stock during the survey period was in actual fact available at the depot. We look into this matter seriously and this calls for us to strengthen our surveillance. We also appreciate the efforts by the SSP and would welcome partnering in order to create alerts for us to assist get to the bottom of the problem.

It is unclear at this stage what could have caused this situation. We would like to believe that there were communication problems between demanders and the depot while we look for ways of preventing such.

No	Cause	Effect
1	Poor forecasting	Estimates based on data from programs are not always accurate Data is not available timeously
2	Contract transition period	Almost always supply challenges are experienced during this time
3	Switches in treatment protocol	Poor planning and/or lack of transition plan
4	Supplier payment	• Late payment of suppliers resulting in accounts put on hold • Suppliers withhold stock • At the time of survey, the Limpopo department did not have Senior manager and there was backlog and suppliers withheld deliveries • Partial deliveries by suppliers amplify the amount of invoices for payment
5	Supplier failure	• Some suppliers wait to accumulate significant amounts of orders before they could effect deliveries • Example: Order placed in Oct 2014 worth R3880.00 was not delivered. Department placed another order for the same amount in Feb 2015 and only in March 2015 the supplier delivered both orders then worth a total amount of R7760.00 • Currently we do not have policy and capacity in terms of human resources to implement supplier penalties for suppliers deviating from the terms of contract • Limited stock supplied to province requires careful planning and stock rationing
6	Infrastructure challenges	Most of our PHC facilities have inadequate storage space. This then dictates limited stock to be ordered resulting in frequent orders, frequent receiving at facilities not having dedicated personnel for stock management
7	Non awards for National tenders	• Some products where tenders are not awarded imply that provinces must source these through quotation. • There seem to be more and more products where no supplier bids when NDOH calls for bids. • These increases workload significantly for provinces as we have to source these on quotation • Limited financial delegation for buy out items • Constraints in sourcing adequate quotations to comply with good financial practices

Factors preventing stock outs

- Regularized orders
- Appropriate staffing for clinics
- Timely payment of suppliers
- Alternate supplier ASAP if one supplier fails
- Penalties for failure to terms of contract
- Honesty and integrity of suppliers
- Tender awards prior to current contract expiration
- Accurate forecasts
- Adherence to min/max
- Electronic systems for real time response
- Improved storage space

Provincial plan to prevent stock outs

- Establish mini depots
- We are currently establishing a task team comprising several stakeholders within the department
- CSP Adopt a Clinic Project
- CSP Ideal clinic project
- Roll Out Rx Solution (Hospitals) to link up with depot (Real time response)
- Roll Out Rx Lite (PHC and CHC) (Stock visibility solution)
- Supply chain optimization using DTC
- 3-day DTC training conducted 15-17 April 2015
- Address leadership and Mx challenges @ district and hospital levels (Mentoring and monitoring)
- Facilitate appointment of skilled , competent managers
- List PHC facilities for community service in 2016
- Risk based approach for optimized procurement
- Call centre for facilities to log stockouts and monitor closure/ challenges
- Implement penalties for failing suppliers
- Supervisory visits by RAQA office
- Establish Facility improvement Teams to mentor and monitor facility performance
- Two day provincial Health summit conducted

Provincial Perspectives on reported stock outs

Ongoing Stock outs 8 Oct 2014
Excess ARV's at facilities

In October 2014 we performed the exercise below in order to prevent medicines expiring. Some of these products were expiring from as early as Feb 2015 and we wanted to prioritise the use thereof.
We asked facilities to provide us with their stock levels for single item ARV's and the facilities had to keep stock for 3 months and declare whatever was in excess of three months to us.

The self-explanatory results are in the table below. It is clear from this table that as a province, we did not really have a shortage but the stock was sitting in facilities where it was in excess and there was no communication between facilities. What is being highlighted here, is the deficiency of our communication systems between the facilities and the need to have monitoring systems with early warning indicators to address shortages before they become crisis. The province had excess ARV's yet other facilities experienced shortage

Row Labels	Sum of Quantity
Efavirenz 600mg 28's	**13 900**
Groblersdal	606
Helene Franz	4918
Lebowakgomo	780
Philadelphia	1296
Seshego	1819
Zebediella	500
Mankweng	3981
Lamivudine & Zidovudine combo 56's	**5 053**
Groblersdal	500
Lamivudine 150mg 56/60	**1 975**
Helene Franz	388
Philadelphia	1587
Lamivudine 300mg 56/60	**980**

Row Labels	Sum of Quantity
Philadelphia	980
Stavudine 15mg 60's	**4 493**
Groblersdal	192
Lebowakgomo	700
Ndlovu	1900
Seshego	461
WF Knobel	1240
Stavudine 20mg 60's	**732**
Botlokwa	560
Seshego	172
Stavudine 30mg 60's	**1 092**
Ndlovu	521
Philadelphia	294
Seshego	277
Tenofovir & Emtricitabine combo 28's	1 423
Groblersdal	821
Philadelphia	594
Mankweng	8
Tenofovir & Lamivudine combo 28's	**4 058**
Groblersdal	383
Janefurse	805
Ndlovu	2030
Rethabile	840
Tenofovir 300mg 28's	**16 378**
Helene Franz	5561
Philadelphia	2331
St Ritas	2587
Zebediella	2440
Mankweng	3459
Grand Total	**50084**

The table below shows the items that were surveyed what the stock levels were at the depot versus the number of facilities reporting Out of stock (O/S). It is obvious from this table that there was yet a supply chain break down between the depot and facilities. For example, 10 facilities reported o/S for Ceftriaxone while the depot had 1 279 units. This is an area then that would receive our attention.

Stock Code	Item Description	pack size	Depot	No of Facilities reported O/S
195	Haloperidol Inj 5Mg/ml 1Ml		Not available, supplier unable to supply	37
2371	Vaccine Rota Single Dose (10)	10	4 602	5
2549	Vaccine Pentaxim Single Dose	10	3 797	22
280	Vaccine Measles Live Atten 10 Dose + Diluent	10	409	2
21	Ceftriaxone Inj 500Mg	10	1 279	10
3154	Enalapril Tabs 10Mg (28'S)	28	91 044	7
247	Perindopril Tabs 4Mg (28'S)	28	737	
3397	Valproate / Valproic Acid Tabs 300Mg (100'S)	100	4 154	1
3398	Valproate / Valproic Acid Tabs 300Mg (100'S)	100	1 208	
3395	Valproate / Valproic Acid Tabs 500Mg (100'S)	100	1 966	
406	Valproate Sodium Liquid Sugar Free 200Mg/5ml 300'	300	1 654	
4033	Metformin Tabs 500Mg (500'S)	500	275	5
655	Metformin Tabs 500Mg (56'S)	56	770	
4034	Metformin Tabs 500Mg (84'S/90's)	84	35	
2424	Metformin Tabs 850Mg (28'S)	28	917	
3158	Metformin Tabs 850Mg (300'S)	300	3 976	
3933	Metformin Tabs 850Mg (56/60'S)	56	15 418	
4031	Metformin Tabs 850Mg (84'S)	84	517	
400	Salbutamol Udv 2.5Mg/2.5Ml	30	526	5
3465	Salbutamol Udv 5Mg/2.5Ml	30	1 183	
122	Salbutamol M.D.I. 100Mcg 200 Dose	1	0	5
	Nevirapine solution			7
	Nevirapine tablets			1
	Kaletra solution			2
	[3TC] Lamivudine for adults			1
	[EFV] Efavirenz 50mg for children			1
	[EFV] Efavirenz 200mg for children			2
	[ABC] Abacavir solution for children			2
	[TDF] Tenofovir			2
	[3TC] Lamivudine solution for children			2
	[AZT] Zidovudine tabs for adults			1
	[AZT] Zidovudine solution for children			1
	Truvada			1
	ddI (didanosine)			1
	FDC for adults			1
	[D4T] Stavudine 30mg for adults			1
	Aluvia 200mg/50mg for adults			1

25 line items reported

In the table on the previous page, the ARV's have been blackened out because they are accessed through the DDV, meaning, they do not get handled by the depot at all.
Other products such as Haloperidol had universal outage and the DOH is aware and looking to source alternative suppliers.

The next table (below) also indicates the number of facilities that reported stock outs during the survey period. For example, only 1 facility reported stock out in relation to Abacavir oral solution on 10 Oct 2014. This was not reported in excess in any of our facilities. This might be consistent with the SSP findings.

LIMPOPO PROVINCIAL GOVERNMENT

LIMPOPO PROVINCE ARV AVAILABILITY MONITORING TOOL

Stock No	Generic Name	Pack	03-Oct-14	10-Oct-14	24-Oct-14	31-Oct-14	07-Nov-14	14-Nov-14	21-Nov-14	28-Nov-14
2484	Abacavir 300Mg Tabs (60'S)	60	0	0	3	5	2	5	3	4
0148	Abacavir 20Mg/ml Oral Sol - 240Ml	240ml	0	1	0	0	0	1	0	2
0514	Didanosine Tabs 25Mg (60'S)	60	5	5	4	5	3	3	1	5
3453	Didanosine Tabs 50Mg (60'S)	60	7	5	4	4	3	3	3	6
2290	Didanosine Tabs 100Mg (60'S)	60	4	6	2	5	3	2	1	2
3987	Efavirenz 50Mg Caps (30'S)	30	0	1	1	1	0	1	2	0
3519	Efavirenz 200Mg Caps (90'S)	90	2	2	1	0	0	0	0	0
0151	Efavirenz 600Mg Caps (30'S)	30	1	2	1	1	0	0	0	0
2995	Lamivudine 10Mg/ml Oral Sol - 240Ml	240ml	0	0	0	1	1	1	0	2
2251	Lamivudine Tabs 150Mg (60'S)	60	5	4	1	1	6	3	1	4
2679	Lamivudine Tabs 300Mg (30'S)	30	7	7	8	7	7	4	6	7
3515	Lopinavir / Ritonavir Liq 80/20Mg/ml - (5x60	60ml	0	1	0	0	1	0	0	0
3518	Lopinavir / Ritonavir Caps 200 / 50Mg (120'S)	120	1	1	1	1	4	2	1	0
3400	Nevirapine Tabs 200Mg (Prp 1)	1	1	0	0	1	0	1	2	1
3403	Nevirapine Susp 50Mg/5ml (100Ml)	100ml	6	5	5	4	5	4	4	1
3814	Nevirapine Tabs 200Mg (60'S)	60	1	2	1	3	0	1	0	0
0428	Ritonavir Sol 80Mg/ml (90Ml)	90ml	1	1	1	3	2	2	2	2
0569	Ritonavir Caps 100Mg (84'S)	84	1	1	0	1	1	1	2	1
3955	Stavudine Solution 1Mg/ml (200Ml)	200ml	2	1	1	0	1	2	2	3
3007	Stavudine Caps 15Mg (60'S)	60	2	1	0	0	0	1	1	1
0518	Stavudine Caps 20Mg (60'S)	60	2	2	1	1	0	1	2	2
0108	Stavudine Caps 30Mg (60'S)	60	2	2	2	3	2	1	1	1
3961	Tenofovir 300Mg (30'S)	30	1	2	1	1	3	3	2	1
0420	Tenofovir & Emtricitabine Tabs (1'S)	1	5	4	4	4	4	4	4	6
2480	Tenofovir Emtrici (Tavirenz 300/200/600Mg T	30	0	0	0	0	0	0	0	0
0511	Zidovudine Syrup 200Ml	200ml	6	6	4	5	2	2	1	2
0503	Zidovudine Tabs 300Mg (60'S)	60	1	4	6	1	2	5	1	7

Kind regards,

Senior Manager: Pharmaceutical Services
Mr. Setshedi MR
3 May 2015

North West

health
Department of
Health
North West Province
REPUBLIC OF SOUTH AFRICA

New Office Park
Cnr Sekame & First Street
1st Floor left wing
Private Bag X2066
MMABATHO, 2735

Tel: (018) 391 4013
Fax: 086 6240 341
tmphaka@nwpg.gov.za
www.nwhealth.gov.za

PHARMACEUTICAL SERVICES

RESPONSE TO THE REPORT ON STOCK OUT SURVEY

1. **INTRODUCTION**:

The North West Medical Depot which is situated in Mafikeng, procures and distribute pharmaceutical and medical related items to 26 demanders comprising of 22 hospital pharmacies and 4 Sub-District pharmacies. Distribution from the Medical Depot to the above mentioned facilities is done on weekly basis based on orders received from the facilities and follows a distribution schedule. Distribution from the Medical Depot to the hospitals is outsourced.

Hospitals distribute to the PHC facilities attached to them either on weekly or bi-weekly basis. Distribution to Community Health Centers and big / busy clinics is on weekly basis and distribution to small clinics is on bi-weekly basis. Distribution from the pharmacies to the PHC facilities is outsourced.

Management of pharmaceutical stock and medical related items at PHC facilities is done by Pharmacist Assistants and by facility managers (Professional Nurses) in facilities which do not have Pharmacist Assistants. Sub-District Pharmacists provide support to the PHC facilities and in Sub Districts which do not have Sub District Pharmacists support to PHC facilities is provided by hospital Pharmacists. District Pharmacists provide monitoring and support to the hospital pharmacies and PHC facilities within their District. Provincial Pharmaceutical Services provide professional and technical support to the Districts.

RESPONSE TO THE REPORT ON STOCK OUT SURVEY

North West

2. **FEEDBACK ON THE FINDINGS FROM THE SURVEY**:

On analysis of the survey report, it was found that of the 84 facilities which were surveyed, 12 facilities do not belong to the North West Department of Health i.e Bojanala 4, Ngaka Modiri Molema 3 and Dr Kenneth Kaunda 5. These facilities belong to either Correctional Services, SAMHS, Private, NGOs etc.

Certain facilities could not be followed up to investigate the reported stock-outs or to establish whether they belong to the North West Department of Health since they are not named and are identified by numbers e.g in Bojanala 17 of the surveyed facilities are identified by numbers.

The following items which were reported as being out of stock at certain facilities are not kept as clinic stock: Azatanavir tablets, Rifampicin syrup and Epilim tablets. These are issued to PHC facilities per prescription on a named patient basis.

The following District hospitals were reported as not keeping vaccines such as Pentaxime,Rotavirus and Measles in stock, Gelukspan in Ngaka Modiri Molema, Taung, Ganyesa and Vryburg hospitals in RSM. All District hospitals keep childhood immunizations / vaccines in stock since they are supplying PHC facilities in their areas with pharmaceutical supplies.

3. **CAUSES OF STOCK OUTS:**

On investigation of the reported cases of stocks outs, the following factors were identified as having contributed to the situation:

- Drug supply management challenges.
- Transition from single agent ARV drugs to the fixed dose combination (FDC) ARV.
- Distribution challenges.
- Unavailability of stock from suppliers.

RESPONSE TO THE REPORT ON STOCK OUT SURVEY

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North West

3.1 Drug supply management challenges:

On investigation of the items which were reported as out of stock at certain facilities, it was found that certain of the items were available at the Pharmacies which are supplying these facilities. Of note is the vaccines i.e Pentaxime, Rotavirus, Measles etc which were also available in adequate quantities at the Medical Depot before and during the period of the survey. Anti retroviral drugs such as D4T, 3TC 150mg, Efavirenz 600mg, FDC etc were also available at most of the supplying Pharmacies and the Medical Depot.

Therefore unavailability of the above mentioned items at the facilities during the period of the survey were mostly found to be as a result of either erratic ordering by the facilities, orders not placed on time or inadequate quantities ordered hence the facilities ran out of stock (refer to the attached detailed reports from the Districts). In certain facilities, storage space limitations resulted in insufficient quantities being ordered which leads to out of stock.

3.2 Transition from single agent ARV drugs to fixed dose combination (FDC) ARV:

During 2014, there was a National drive to transition from single agent ARV drugs to the fixed dose combination of ARVs (FDC). To limit the distribution of single agent ARV drugs from the Medical Depot to the facilities, control measures such as authorization of orders from the facilities by the District Pharmacies were put in place.

Another measure which was put in place was instead of facilities placing orders of single agent ARV drugs with the Medical Depot, re-distribution of excess single agent ARV drugs within the Districts was advocated until the quantities of these agents was brought down to acceptable levels. Dr Kenneth Kaunda District implemented an additional control measure whereby single agent ARV drugs are supplied to the PHC facilities per patient named basis.

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North West

Therefore single agent ARV drugs are not facility stock in Dr Kenneth Kaunda District.

The above mentioned control measures which were meant to facilitate and fast track transition from single agent ARV drugs to the fixed dose combination (FDC) may have had the un-intended result of un-availability of certain single agent ARV drugs at certain facilities.

3.3 Distribution challenges:

On investigation of the reported out of stocks at certain facilities, it was found out that non adherence to the distribution schedule might have contributed to the out of stocks. During the period of the survey, the Depot was experiencing a backlog in distribution following the shut-down period for the bi-annual (September / October) stock take period. As a result of the distribution backlog, availability of certain items at the facilities was affected.

3.4 Unavailability of certain items from the suppliers:

The following items which were reported as unavailable at certain facilities during the period of the survey were as a result of un-availability from the suppliers:

- Abacavir syrup and tablets. Contributing factor was reported to be non availability of the active ingredient.
- Haloperidol injection. This item was not on contract during the period of the survey and the alternative supplier was in the process of registering the product with the regulatory body.

Supply of the following items was in-consistent during the period of the survey and this affected their sustained availability at the facilities:

- Salbutamol inhaler.
- Enalapril tablets.
- Ceftriaxone 250mg injection.

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North West

- AZT 300mg tablets.

4. **REMEDIAL ACTIONS:**

- Strengthen drug supply management at PHC level. This entail training and follow-up to ensuring implementation of drug management principles at the facilities.
- Strengthen capacity of pharmaceutical personnel at all levels for effective monitoring and stock management. This entail increased training of Pharmacist Assistants.
- Review storage capacity at PHC facilities to identify facilities with storage capacity challenges.
- Ensure regular monitoring and support visits to PHC facilities and regular reporting of drug availability.
- Strengthen distribution and adherence to schedules at all levels.
- Maintenance of adequate stock levels at the Medical Depot to ensure that non availability of stock from the suppliers does not immediately impact on the Depot and the facilities.
- Strengthen contract management of pharmaceutical contracts (NDOH) including implementation of penalties to non-compliant suppliers.
- Implementation of direct delivery of pharmaceuticals to the hospitals to improve on turn-around time of delivery of supplies to the facilities.
- Implement the alternative method of distribution and dispensing of chronic medications beyond the NHI district.

RESPONSE TO THE REPORT ON STOCK OUT SURVEY

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North West

5. **ACTION PLANS**:

	OBJECTIVE		ACTIVITY	RESPONSIBILITY	TIME LINE
1	Implement a strategy to manage out of stocks.	1	Develop and implement an SOP for monitoring and managing stock outs.	Manager Pharmaceutical Services.	June 2015
2	Strengthen drug supply management at PHC facilities.	1	Train personnel on DSM through training of trainer model.	Manager Pharmaceutical Services	June 2015 to March 2016
		2	Monitor implementation of DSM principles.	District Pharmacists	On going
3	Strengthen capacity of pharmaceutical personnel.	1	Facilitate training of Pharmacist Assistants.	Manager Pharmaceutical Services.	
		2	Motivate for creation and filling of additional Pharmacist Assistants posts at PHC facilities and posts for Sub District Pharmacists.	Senior Manager Pharmaceutical Services.	May 2015
4	Review storage capacity at PHC facilities.	1	Identify PHC facilities with storage capacity challenges and motivate for assistance.	District Pharmacists.	May 2015 to July 2015
5	Monitoring and support to PHC facilities	1	Visit each PHC facility at least once a quarter for support purposes.	Pharmacy Managers. District Pharmacists.	April 2015 to March 2016

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North West

		2	Submit availability report for PHC facilities and Hospitals to HOPS.	District Pharmacists	Monthly
6	Strengthen distribution from the Medical Depot to the hospitals and from the hospitals to the PHC facilities.	1	Arrange a new contract for distribution from the Depot.	Senior Manager Pharmaceutical Services.	July 2015
		2	Arrange contracts for distribution from the hospitals to the PHC facilities in Bojanala, DKK and RSM districts.	Senior Manager Pharmaceutical Services.	July 2015
7	Strengthen contract management for pharmaceutical contracts.	1	Implement penalties for non compliant suppliers.	Depot Manager	May 2015
8	Implement the direct delivery strategy for pharmaceutical items.	1	Implement the direct delivery strategy in the 7 identified hospitals	Project Manager Direct Delivery Project.	September 2015

6. CONCLUSION:

The major contributing factor to the out of stocks at most facilities is drug supply management challenges. It was also found out that at the facilities where management of drug supplies is done by the Pharmacist Assistants, incidences of out of stocks were minimal as compared to facilities which do not have Pharmacist Assistants. Therefore staffing all the PHC facilities with pharmaceutical personnel is

RESPONSE TO THE REPORT ON STOCK OUT SURVEY

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North West

one of the priorities that the Province will be implementing over a period of time.

Attached / accompanying is the detailed responses to the findings per District.

Regards,

Kgosi K K Motlhabane
DDG Health Branch

RESPONSE TO THE REPORT ON STOCK OUT SURVEY

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Northern Cape

NORTHERN CAPE

DEPARTMENT OF HEALTH
LEFAPHA LA BOITEKANELO
ISEBE LEZEMPILO
DEPARTEMENT VAN GESONDHEID

DEPARTMENT OF HEALTH
NORTHERN CAPE PROVINCE
PHARMACEUTICAL SERVICES
16 FABRICIA ROAD
KIMBERLEY
8301

Tel: 053 8302794
Fax: 053 8302787
Email:Fdamons@ncpg.gov.za

Enquiries / Dipatlisiso / Imibuzo / Navrae: Mr. G. Mentoor
TEL: 053 8302701
FAX: 053 8302787
E-Mail: gmentoor@ncpg.gov.za

Date / Letlha / Umhla / Datum: 8 April 2015

Head of Department
Chief Director: District Health Services
Acting Chief Director: Health Programmes
Director: District Health Services

Re: Stop Stock Out Report

As you would be aware a meeting was conducted on 25/3/2015 between the NC DOH represented by all district pharmacists and myself as the HOPS.

The Stop Stock Out team represented by Ms B Hwang was given the opportunity to provide background as well as the methodology followed by them to report on items being out of stock in our facilities. In turn she was provided with a comprehensive report (see attached) providing detailed reasons for items having been reported out of stock at our facilities.

As can be clearly seen from the attached report in instances where there were actual items out of stock the relevant pharmacists ensured that the patient is provided with the necessary medication.

Notwithstanding the aforesaid it must be highlighted that the following shortcomings gave rise to items being out of stock:

- Management at facility level where nobody in charge wants to accept responsibility and accountability
- Lack of pharmaceutical personnel
- Nursing staff inundated with patient care
- Absence of a credible stock management system

Northern Cape

Provinces were requested to provide action plans to asses, investigate and forward solutions to address the challenges leading to out of stocks. These solutions should consist of strategies that would include:

- Surveillance and increased visibility of stock outs
- Rapid response mechanisms to stock outs
- Governance, accountability and transparency along the supply chain
- Supply chain strengthening and procurement reforms

To address the challenges raised the following should be attended to:

- Managers to accept responsibility and accountability
- Urgently appoint pharmaceutical staff at all levels
- Obtain a credible stock management system throughout the province
- Conduct and create awareness regarding the Stop Stock Out principle at facility level

We were further informed that the report will be released by the Stop Stock Out team in conjunction with the National Minister of Health by the end of May 2015.

Should there be any queries please contact me.

Kind regards,

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MR G MENTOOR
DIRECTOR: PHARMACEUTICAL SERVICES
DATE: 8/4/2015

Northern Cape

ITEMS		FACILITY	DATE	PERIOD O/S REASONS	REMEDIAL ACTIONS	DEPOT OUT OF STOCK PERIOD
FDC for adults	ZFM	BOEGOEBERG PHC	03 OCT 2014	Facility ordered on 30/09/2014 and received 100 units on 7/10/2014	Medicines were borrowed and patient received the full supply. Medicines (40 units) were subsequent dispatched from Mini-depot to alleviate immediate shortage	NONE
	PIX	RICHMOND CHC	24 OCT 2014	Facility have never requested stock	Stock issued from Richmond Clinic to patient. Redistribution of stock from clinic to CHC	NONE
		STRYDENBURG CLINIC	24 OCT 2014	100% of requested stock received	Stock issued from District Pharmacy to patient	NONE
	JTG	UG MODISE	05 NOV 2014	Insuffident quantity ordered 4 Sep 2014	Sr Borrowed from other facility. Patient left clinic with full quantity. Order was placed 5 November 2014	NONE
		CHURCHILL CLINIC	05 NOV 2014	Previous order was placed in Aug and the quantity was not sufficient to cover the patients for 3 months. Order was placed 14 October was processed but still in transit	Sr Borrowed from other facility. Patient left clinic with full quantity	NONE
NEVIRAPINE SOLUTION	PIX	BRITSTOWN CLINIC	3 OCT 2014	National out of stock letter		NONE
NEVIRAPINE TABLETS	PIX	HANOVER CLINIC	3 OCT 2014	100% of requested stock received		NONE
ABACAVIR (ABC)	ZFM	BOEGOEBERG PHC	03 OCT 2014	Facility ordered on 30/09/2014 and received 4 units on 7/10/2014	Medicines were borrowed and patient received the full supply. Routine subsequent order was sufficient- regular ordering proceeded.	NONE
	PIX	BRITSTOWN CLINIC	3 OCT 2014	100% of requested stock received	*Sufficient stock was available. No remedial actions needed.*	NONE
LAMIVUDIN E (3TC)	ZFM	AUGRABIES SATELLITE CLINIC		Facility ordered no tablets for this period. Ordered 2 x Lamivudine syrup on 25/08/2014 and received on 09/09/2014. Again ordered 6 x Lamivudine syrup on 06/10/2014 and received on 14/10/2014.	Patient received the syrup. Medicines (30 units) were subsequent dispatched from Mini-depot to alleviate immediate shortage	NONE
	JTG	CHURCHILL CLINIC	05 NOV 2014	Stock ordered 6 Aug 2014 was not enough	Order was placed 5 November 2014	NONE
LOPINAVIR/ RITONIVIR	JTG	PIETERSHAM CLINIC	24 OCT 2014	*NO FEEDBACK REPORT RECEIVED*		NONE

Northern Cape

200MG						
LOPINAVIR/ RITONIVIR SOLUTION	JTG	LOOPENG PHC	03 NOV 2014	Previous order was placed in Aug. Stock was not sufficient to last 3 months. Order was placed 14 October. Stock was in transit.	Sr borrowed full quantity stock from other facility	
EFAVIRENZ 50MG	NAM	CALVINIA CLINIC	2 OCT 2014	Had stock but not sufficient to supply for 3 month to patient Did not order stock in time.	Referred patient to Abraham Esau Hospital to collect the balance of the medicine Received 33 x 3010 on 28 August 2014 and 8 x 30 on 12 December 2014	NONE
	PIX	NIEKERKSHOOP CLINIC	24 OCT 2014	100% of requested stock received	*Sufficient stock was available. No remedial actions needed.*	NONE
	JTG	GATEWAY CLINIC	2 OCT 2014	Order was placed 17 October. Stock was in transit.	Sr borrowed full quantity stock from other facility	NONE
ALUVIA 100mg/25m g tabs	PIX	LEHLOHONOLO ADAMS CLINIC	2 NOV 2014	Stock were returned to the district pharmacy as it is not being used and will only expire at clinic	*No remedial actions needed.*	NONE
DDI (didanosine)	PIX	HANOVER CLINIC	3 OCT 2014	EC 250mg tabs: 100% of requested stock received 100mg tabs: 100% of requested stock received	*No remedial actions needed.*	NONE
STAVUDINE 30MG	JTG	GATEWAY CLINIC	05 NOV 2014	Order was placed 12 September. Stock was ordered not sufficient quantity to last cycle	Referred patient to other facility for full quantity	NONE
		PIETERSHAM HHC	2 OCT 2014	Order was placed 14 October. Stock was in transit.		
VACCINE ROTAVIRUS	ZFM	KEIMOES HOSPITAL	05 NOV 2014	Item was not out of stock in District cage. However, as a rule vaccines were not kept at Hospital level, only PHC and CHC level.	Few vials now kept in refrigerator in Pharmacy	NONE
		POSTMASBURG HOSPITAL		Item was not out of stock in District cage. However, as a rule vaccines were not kept at Hospital level, only PHC and CHC level.	Few vials now kept in refrigerator in Pharmacy	NONE
	NAM	DR V NIEKERK HOSPITAL	24 OCT 2014	Not out of stock. Back up stock for District stored on premises and is easily accessible	2 vials now kept in refrigerator in Pharmacy	NONE
	PIX	MANNE DIPICO (COLESBERG) HOSPITAL	5 NOV 2014	Stock is kept at both the PHC's and due to the fact that there is two pharmacists with assistant the stock is rotated in case of need		NONE
	JTG	PIETERSHAM CLINIC	24 OCT 2014	Order was placed 14 October. Stock was in transit.	Referred patient to other facility	NONE
VACCINE PENTAXIM	ZFM	POSTMASBURG HOSPITAL		Item was not out of stock in District cage. However, as a rule vaccines were not kept at Hospital level, only PHC and CHC level.	Few vials now kept in refrigerator in Pharmacy	NONE

Northern Cape

		SARAH STRAUSS PHC	03 OCT 2014	Facility ordered on 04/08/2014, 150 units received stock on 09/09/2014. During the same period the fridge of the facility broke down. Surplus vaccines were stored at the Mini-depot. On the day of assessment, supplies might not have been at facility.	New fridge has been procured for facility and full complement of vaccine are now in stock.	NONE
		KEIMOES HOSPITAL	05 NOV 2014	Item was not out of stock in District cage. However, as a rule vaccines were not kept at Hospital level, only PHC and CHC level.	Few vials now kept in refrigerator in Pharmacy	NONE
	NAM	DR V NIEKERK HOSPITAL	24 OCT 2014	Not out of stock. Back up stock for District stored on premises and is easily accessible	2 vials now kept in refrigerator in Pharmacy	NONE
		NIEWOUDTVILLE CLINIC	24 OCT 2014	Had stock – but not on premises of the clinic. Refrigerator broke in July 2014 and the sister is keeping stock at Abraham Esau Hospital since then which	Received 10 vials on 8 October 2014 (invoice 532406-1)	NONE
	PIX	MANNE DIPICO (COLESBERG) HOSPITAL	5 NOV 2014	Stock is kept at both the PHC's and due to the fact that there is two pharmacists with assistant the stock is rotated in case of need		NONE
		GREKWASTAD HELPMEKAAR CHC	3 NOV 2014	100% of requested stock received. Stock for CHC is kept at PHC side as both are in the same building		NONE
		LEHLOHONOLO ADAMS CLINIC	2 OCT 2014	100% of requested stock received		NONE
	ITG	CHURCHILL CLINIC	05 NOV 2014	Stock ordered 1 Sep 2014 was not enough	Referred patient to other facility	NONE
		WRENCHVILLE CLINIC	05 NOV 2014	Stock ordered 1 June 2014 was not enough	Sr borrowed stock from Karusian Hospital	NONE
VACCINE MEASELS	ZFM	POSTMASBURG HOSPITAL		Item was not out of stock in District cage. However, as a rule vaccines were not kept at Hospital level, only PHC and CHC level.	Few vials now kept in refrigerator in Pharmacy	NONE
		KEIMOES HOSPITAL	05 NOV 2014	Item was not out of stock in District cage. However, as a rule vaccines were not kept at Hospital level, only PHC and CHC level.	Few vials now kept in refrigerator in Pharmacy	NONE
		SARAH STRAUSS PHC	03 OCT 2014	Item was not out of stock in District cage. Facility ordered on 04/08/2014, 20 units received stock on 03/09/2014 During the same period the fridge of the facility broke down. Surplus vaccines were stored at the Mini-depot. On the day of assessment, supplies might not have been at facility.	New fridge has been procured for facility and full complement of vaccine are now in stock.	NONE
	NAM	DR V NIEKERK HOSPITAL	24 OCT 2014	Not out of stock. Back up stock for District stored on premises and is easily accessible	2 vials now kept in refrigerator in Pharmacy	NONE
		NIEWOUDTVILLE CLINIC	24 OCT 2014	Received 10 vials on 8 October 2014 (invoice 532406-1) Had stock – but not on premises of the clinic. Refrigerator broke in July 2014 and the sister is keeping stock at Abraham Esau Hospital since then which		NONE

Northern Cape

	PIX	MANNE DIPICO (COLESBERG) HOSPITAL	5 NOV 2014	Stock is kept at both the PHC's and due to the fact that there is two pharmacists with assistant the stock is rotated in case of need		NONE
		GRIEKWASTAD HELPMEKAAR CHC	3 NOV 2014	100% of requested stock received. Stock for CHC is kept at PHC side as both are in the same building		NONE
		LEHLOHONOLO ADAMS CLINIC	2 OCT 2014	100% of requested stock received		NONE
	JTG	CHURCHILL CLINIC	05 NOV 2014	Stock ordered 1 Sep 2014 was not enough	Referred patient to other facility	NONE
		WRENCHVILLE CLINIC	05 NOV 2014	Stock ordered 1 June 2014 was not enough	Sr borrowed stock from Kuruman Hospital	NONE
RH 60/60 (RIMACTIZID) for Children	POL	MARYDALE CLINIC	6 OCT 2014	100% of requested stock received		NONE
	JTG	CHURCHILL PHC	05 NOV 2014	No order was placed	Patient left facility with smaller supply - not none	
INH TABS	NAM	WILLISTON CHC	03 OCT 2014	Was in stock (bi-annual stock count) 100mg tabs = 41 x 28 300mg tabs = 131 x 28		NONE
	PIX	LEHLOHONOLO ADAMS CLINIC	2 OCT 2014	300mg tabs: 100% of requested stock received 100mg tabs: 100% of requested stock received, stock last requested in Aug 2014		NONE
		BRITSTOWN CLINIC	3 OCT 2014	300mg tabs: 100% of requested stock received 100mg tabs: 100% of requested stock received		NONE
LEVOFLOXACIN	NAM	WILLISTON CHC	03 OCT 2014	Was in stock (bi-annual stock count) = 1 x 30		NONE
	FB	WEST END HOSPITAL			Stock Ordered from Depot and received within 7 days	NONE
RIFAMPICIN CAPS	NAM	WILLISTON CHC	03 OCT 2014	This items is prescribed on a patient name basis as it is not used in the normal treatment regime for TB. Sr van der Merwe confirmed that there was not patient on Rifampicin - and according to the replenishment records from 2010 up to now no order was placed		NONE
RIFAFOUR RHZE	PIX	MARYDALE CLINIC	6 OCT 2014	100% of requested stock received		NONE
	NAM	POFADDER CHC	24 OCT 2014	Was in stock (bi-annual stock count) = 3 x 100		NONE
CEFTRIAXONE	ZFM	LOUISVALEWEG PHC	5 NOV 2014	Facility ordered Ceftriaxone 250mg on 30/09/2014 and received stock only on 07/12/2015. Bimi (250mg) has been out of stock in ZFM Cape, although the 500mg and the 1g injection has been available.	Ceftriaxone 250mg were substituted with the 500mg.	NONE

Northern Cape

	NAM	CALVINIA CLINIC	2 OCT 2014	Was in stock (bi-annual stock count) and indicated on stock card			NONE
		POFADDER CHC	24 OCT 2014	Was in stock (bi-annual stock count) = 18 vials Received 10 vials on 28 August 2014 (invoice 475178-248)			NONE
		SPRINGBOK CLINIC	2 OCT 2014	Was in stock (bi-annual stock count) = 7 vials Received 2 vials on 20 August 2014 (invoice 474785-308) and then on 15 October 2014 (invoice 534081-45)			NONE
	PIX	MARYDALE CLINIC	6 OCT 2014	No 250mg available but 500mg issued			NONE
	FB	EN MOTHIBI PHC		No order placed from Facility	Ordered from Depot		NONE
		CITY CLINIC	3 NOV 2014	No order placed from Facility	Ordered from Depot		NONE
	JTG	UG MDODSE	05 NOV 2014	Previous order was placed in Aug. Stock was not sufficient to last 3 months. Order was placed 14 October. Stock was in transit	Sr borrowed full quantity stock from other facility		NONE
ENALAPRIL/ PERINDOPRI L	ZFM	KENHARDT PHC	24 OCT 2014	Facility ordered and received 80 units Perindopril on 09/09/2014 Perindopril was to be replaced with Enalapril	Patients were switched to Enalapril when the Perindopril started running low.		NONE
		KENHARDT CHC	03 OCT 2014	No order for Perindopril placed by facility during Sept 2014 Perindopril was to be replaced with Enalapril.	Patients were switched to Enalapril when the Perindopril started running low.		NONE
		KEMOIES PHC	06 OCT 2014	Facility ordered and received 360 units Perindopril on 09/09/2014 Perindopril was to be replaced with Enalapril	Patients were switched to Enalapril when the Perindopril started running low. Excess Perindopril (120 units) within district was re-distributed to Kemoies PHC		NONE
		KEIMOES HOSPITAL	05 NOV 2014	Perindopril was in stock according to the Responsible Pharmacist. Data becomes questionable. Facility ordered 100 units at the beginning of Oct 2014 and received 144 units on 14 Oct 2014 (Inv. 536451-10). Also, stocks were again ordered (100 units) towards the end of Oct 2014 and received (100 units) on 4 Nov 2014 (Inv. 532946-20)			NONE
	NAM	MATJIESKLOOF PHC	3 NOV 2014	Was in stock (bi-annual stock count) Replenishment records show ordered 80 and was issued 144 (180% over issue) in September (invoice 493045-144), and then again received 80 + 28 on 24 October 20144 (invoice 535752-7)			NONE
	PIX	PETRUSVILLE CLINIC	3 OCT 2014	Stock last requested in 2013. 100% of requested stock issued of the perindopril/indapamide combination			NONE
		GRIEKWASTAD HELPMEKAAR CHC	3 NOV 2014	100% of requested stock received even for the combination of perindopril/indapamide as well			NONE
		MONTANA CLINIC	3 NOV 2014	100% of requested stock received , combination of perindopril & indapamide issued at 250% during Sept 2014			NONE

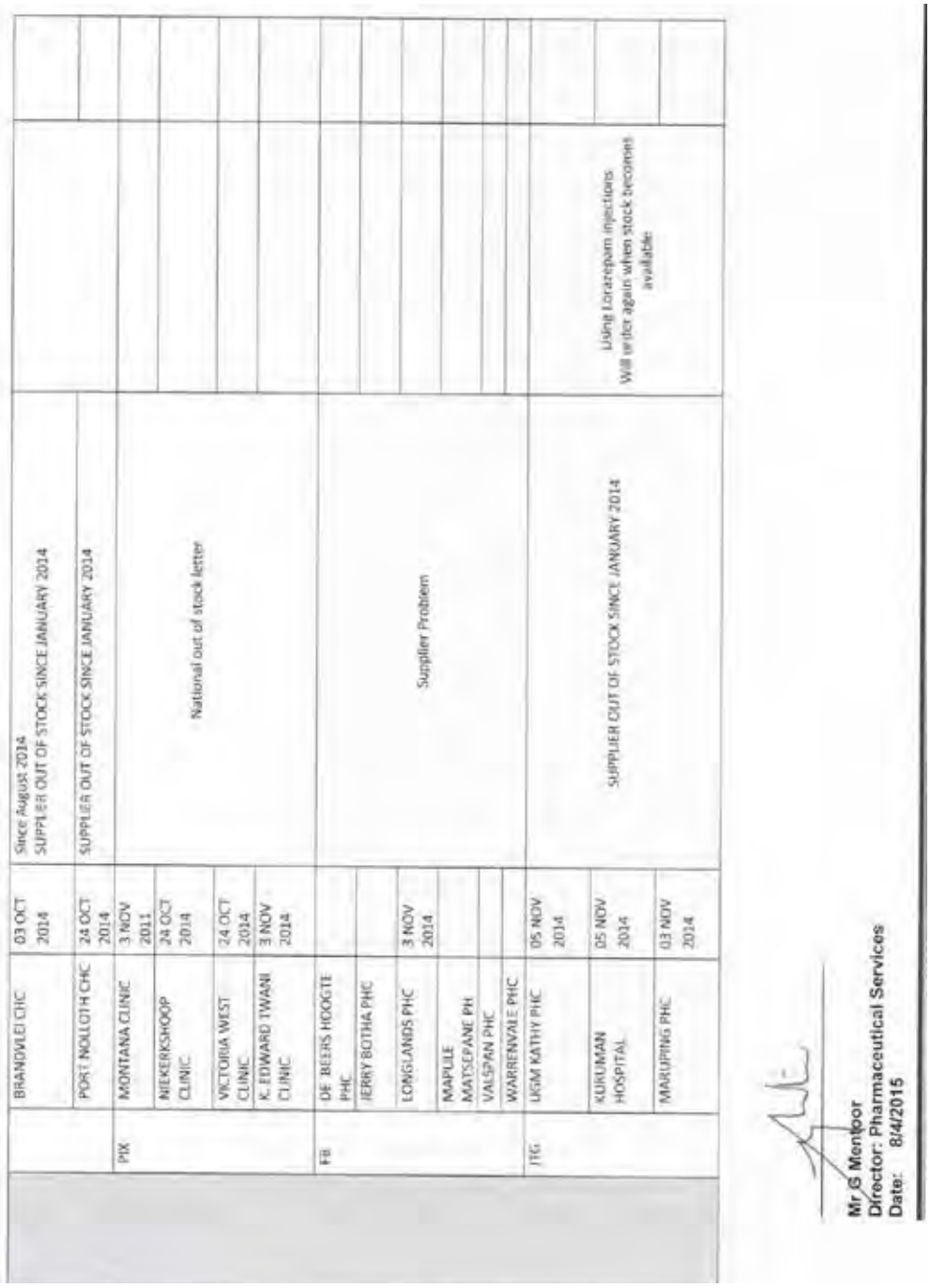
Northern Cape

		HOPETOWN (WEGE) CHC	3 NOV 2014	100% of requested stock received			NONE
	FB	TERRY BOTHA PHC		No order placed from Facility	Ordered from Depot		NONE
	JTG	KAGISO CHC	05 NOV 2014	There WAS Perindopril 4mg in Kagiso but not Enalapril On 12 Sep 2014 Perindopril 4mg x 480 were ordered and on 22 Oct 2014 Perindopril 4mg x 360 were ordered = 760 = sufficient	Patients were given Perindopril 4mg		NONE
		GASEHONELO PHC	05 NOV 2014	There WAS Perindopril 4mg in Gasehunelo but not Enalapril On 5 Aug 2014 144x Perindopril 4mg was issued and was till next order for Enalapril was placed on 4 Nov 14	Patients were given Perindopril 4mg		NONE
		LAKEY PHC	03 NOV 2014	No Perindopril ordered since July 2014 and therefor no substitution was issued from Depot	260 x Enalapril 28's were supplied 4 Nov 2014		NONE
		LOOPENG PHC	03 NOV 2014	There WAS Perindopril 4mg available at the Facility	Patients were given Perindopril 4mg		NONE
		MANYEDING PHC	03 NOV 2014	There WAS Perindopril 4mg available at the Facility	Patients were given Perindopril 4mg		NONE
		MARUPING PHC	03 NOV 2014	There WAS Perindopril 4mg available at the Facility	Patients were given Perindopril 4mg		NONE
		RUSFONTEINPHC	24 OCT 2014	There WAS Perindopril 4mg available at the Facility	Patients were given Perindopril 4mg		NONE
		SEDDING PHC	25 OCT 2014	There WAS Perindopril 4mg available at the Facility	Patients were given Perindopril 4mg		NONE
		GATEWAY PHC	2 OCT 2014	There WAS Perindopril 4mg available at the Facility	Patients were given Perindopril 4mg		NONE
EPILIM TABS	ZFM	PROGRESS PHC	03 OCT 2014	Facility ordered 30 units early in Aug 2014 and received 48 units on 14 Aug 2014 (Inv. 4978674-92) Again towards the end of Aug 2014 only 10 units were ordered and received on 09 Sept 2014 No order has been placed during Sept 2014.	Patients were serviced at Dr Harry Surtie Hospital.		NONE
		LIPINGTON PHC	03 OCT 2014	Facility ordered at the end of Jul 2014 and received 20 units on 11 Aug 2014. The only subsequent order was during Oct 2014 on which 20 units were received on 27 Oct 2014. No medicines were ordered during Sept 2014.	Patients were serviced at Dr Harry Surtie Hospital		NONE
		KEIMOES PHC	06 OCT 2014	No order placed by facility during Sept 2014. However, facility ordered and received 48 units during August 2014 (ave usage 23 units), which could explain the non-ordering during Sept 2014	Although item was not available during audit, no medicines were due to patients on that date, and supplies were received the following week. Facility ordered 23 units at the beginning of October 2014 and		NONE

Northern Cape

					received 23 units on 14 Oct 2014	
	NAM	WILLISTON CHC	03 OCT 2014	Was in stock (bi-annual stock count) 200mg tabs = 19 x 100 500mg tabs = 8 x 100	Received8 x 100 on 5 September 2014 (invoice 474439-320)	NONE
	PIX	VOSBURG CHC	3 OCT 2014	CR 200mg tabs: 100% of requested stock received CR 500mg tabs: 100% of requested stock received		NONE
METFORMIN	PIX	RICHMOND CHC	24 OCT 2014	100% of requested stock received		NONE
	FB	JERRY BOTHA PHC		No order placed from Facility	Ordered from Depot	NONE
SALBUTAMOL INH	ZFM	DANIELSKUIL CHC	24 OCT 2014	No order placed by facility during Sept 2014	Inhalers have been borrowed from Postmasburg Hospital to alleviate immediate shortage, as medicines were received during the same week. 200 units of Salbutamol were ordered during Oct 2014 received on 28 Oct 2014 (Inv. 536451-10)	NONE
	NAM	OKIEP CLINIC	2 OCT 2014	Was in stock (bi-annual stock count) = 60 inhalers Received 40 units on 1 October 2014 (invoice 496453-118)		NONE
		WILLISTON CHC	03 OCT 2014	2/9/2014 to 8/10/2014 Order 474439-322 was left behind in the Depot in Kimberley and only delivered at the beginning of October 2014	Procured from Abraham Esau Hospital and supplied to patients afterwards 8 October 2014 60 60	NONE
HALOPERIDOL INJ	ZFM	LINGELETHU PHC	03 OCT 2014	Since August 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014	Lorazepam injections used Will order again when stock becomes available	
		PROGRESS PHC	03 OCT 2014	Since June 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014		
		TOPLINE SATELLITE CLINIC	24 OCT 2014	Since June 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014		
	NAM	WILLISTON CHC	03 OCT 2014	Since August 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014	Using Lorazepam injections Will order again when stock becomes available	
		NIEWOUDTVILLE CLINIC	24 OCT 2014	June – December 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014		
		NABABEEP CLINIC	21 OCT 2014	June – December 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014		
		ALEXANDERBAY CLINIC	2 OCT 2014	June 2014 - December SUPPLIER OUT OF STOCK SINCE JANUARY 2014		
		CALVINIA CLINIC	2 OCT 2014	Since June 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014		

Northern Cape



	BRANDVLEI CHC	03 OCT 2014	Since August 2014 SUPPLIER OUT OF STOCK SINCE JANUARY 2014		
	PORT NOLLOTH CHC	24 OCT 2014	SUPPLIER OUT OF STOCK SINCE JANUARY 2014		
PIX	MONTANA CLINIC	3 NOV 2014	National out of stock letter		
	NIEKERKSHOOP CLINIC	24 OCT 2014			
	VICTORIA WEST CLINIC	24 OCT 2014			
	K. EDWARD TWANI CLINIC	3 NOV 2014			
FB	DE BEERS HOOGTE PHC		Supplier Problem		
	JERRY BOTHA PHC				
	LOMGLANDS PHC	3 NOV 2014			
	MAPULE MATSEPANE PH				
	VALSPAN PHC				
	WARRENVALE PHC				
JTG	LKSM KATHY PHC	05 NOV 2014	SUPPLIER OUT OF STOCK SINCE JANUARY 2014	Using Lorazepam injections Will order again when stock becomes available	
	KURUMAN HOSPITAL	05 NOV 2014			
	MARUPING PHC	03 NOV 2014			

Mr G Mentoor
Director: Pharmaceutical Services
Date: 8/4/2015

Western Cape

Medicine availability is reliable in the Western Cape. The Cape Medical Depot (CMD) is the procurement, warehousing and distribution arm of the DoH WC for pharmaceuticals and non -pharmaceutical items for DHS. The province has implemented a number of strategies to ensure that medicines are available at all facilities. These strategies include:

- Accurate estimates are forwarded to NDoH for the preparation of tenders.
- The CMD has a finance manager on its establishment and reports to the CMD Manager and RP
- A delivery schedule by the CMD to facilities is circulated and is well known and utilised.
- Orders are placed with suppliers. These are faxed, emailed and confirmation of receipt gained.
- 2 weeks before supplies are expected, a Medsas report is used to confirm the delivery dates of the orders expected.
- A Medsas generated letter to suppliers is forwarded informing them that should deliveries to CMD, be outside the obligations contracted for, the relevant penalties will apply as per contract.
- Contract penalties applied for late deliveries by suppliers.
- Any variances in cost as a result of a buyout made from a 2nd supplier, rather than the contracted supplier, are recovered from the contract holder.
- Weekly meetings to discuss and resolve current and impending stock outs.
- Alternatives for unavailable products are referred the Provincial PTC and clinical pharmacologist for alternatives wherever possible.
- Weekly dues out reports circulated to facilities, managers, pharmacists and NDOH. Any other concerns relating to shortages or the omission of items from tenders that will have a material impact on patient care and /or costs are reported to NDOH.
- DDV documentation is actively followed up by CMD - original documentation is collected by a CMD driver on a set route known to all facilities, so as to effect payment to suppliers within 30 days.
- The CMD pays its suppliers in <30 days - in an average of 15-20 days.
- APP indicators measure the internal efficiency relating to the resolution of queries by facilities as they relate to orders/stock matters, as well as the 72 hour turnaround time of orders to facilities.
- CEOs of suppliers are engaged first hand by visiting to assess what the current situation is regarding stock availability. This has been vitally important in resolving any ongoing issues regarding any part of the supply chain between the depot and the suppliers (e.g. claims of non-payment etc.)

Appendix

Appendix Table 1: Facilities that were contactable and provided information on stock outs of ARV and/or TB medicines. Results by province in 2014 and 2013

Province	2014 Facilities contactable by phone % (#)	2014 Participation: Facilities Providing information % (#)	Facilities reporting a Pentaxim stock out % (#)	2013 Participation: Facilities providing information % (#)
Eastern Cape	75% (519/696)	66% (468/703)	98% (509/519)	96% (447/468)
Free State	97% (235/242)	74% (191/260)	63% (147/235)	87% (167/191)
Gauteng	85% (348/409)	77% (316/410)	84% (294/348)	90% (284/316)
KwaZulu-Natal	74% (532/717)	51% (393/766)	83% (444/532)	84% (332/393)
Limpopo	76% (282/370)	61% (228/374)	94% (266/282)	96% (218/228)
Mpumalanga	68% (223/327)	67% (234/348)	92% (205/223)	96% (224/234)
North West	80% (265/332)	66% (65/98)	84% (222/265)	95% (62/65)
Northern Cape	79% (112/141)	56%(192/342)	96% (107/112)	95% (182/192)
Western Cape	70% (349/498)	48% (255/525)	87% (305/349)	87% (223/255)
National	77% (2865/3732)	61% (2342/3826)	87% (2499/2865)	91% (2139/2342)

Appendix Table 2: Proportion (%) of facilities reporting at least one ARV/TB stock out on the day of contact (ongoing) by province for 2013 & 2014 and breakdown of proportion (%) of facilities reporting adult ongoing ARVs, PMTCT, paediatric ARVs and TB stock outs on the day of contact (ongoing) by province in 2014

Ongoing	2014: Facilities reporting at least one ARV/TB stock out % (#)	2013: Facilities reporting at least one ARV/TB stock out % (#)	2014 Breakdown			
			Facilities reporting at least one adult ARV stock out % (#)	Facilities reporting at least one PMTCT stock out %(#)	Facilities reporting at least one paediatric ARV stock out % (#)	Facilities reporting at least one TB stock out % (#)
Eastern Cape	19% (95/509)	10% (45/447)	7%(36/509)	2% (11/509)	5% (25/509)	8% (39/509)
Free State	12% (18/147)	22% (37/167)	10% (15/147)	0% (0/147)	3% (5/147)	1% (2/147)
Gauteng	18% (50/283)	9% (26/284)	10% (29/283)	1%(4/283)	4% (11/283)	5% (14/283)
KwaZulu-Natal	12% (53/436)	9% (30/3320	5% (22/436)	2% (8/436)	6% (24/436)	1% (6/436)
Limpopo	21% (55/266)	22% (48/218)	12% (32/266)	8% (20/266)	5% (13/266)	1% (2/266)
Mpumalanga	30% (62/205)	18% (40/224)	21% (28/205)	6% (13/205)	7% (14/205)	9% (19/205)
North West	27% (59/222)	3% (5/182)	21% (46/222)	0.5% (1/222)	4% (9/222)	4% (8/222)
Northern Cape	13% (14/107)	3% (2/62)	8% (9/107)	1% (1/107)	2% (2/107)	6% (6/107)
Western Cape	1% (4/279)	5% (11/22)	0% (0/279)	0% (0/279)	0% (0/279)	1% (4/279)
National	17% (410/2454)	11%(235/2139)	9% (217/2454)	2% (58/2454)	4% (103/2454)	4% (100/2454)

Appendix Table 3: Proportion (%) of facilities reporting at least one ARV/TB stock out in the three month period prior to contact by province for 2013 & 2014 and breakdown of proportion (%) of facilities reporting adult ARVs, PMTCT, paediatric ARVs and TB stock outs in the three month period prior to contact 2014

Previous three months	2014: Facilities reporting at least one ARV/TB stock out %(#)	2013 Facilities reporting at least one ARV/TB stock out % (#)	2014 Breakdown			
			Facilities reporting at least one adult ARV stock out % (#)	Facilities reporting at least one PMTCT stock out %(#)	Facilities reporting at least one paediatric ARV stock out % (#)	Facilities reporting at least one TB stock out % (#)
Eastern Cape	28% (141/509)	20% (89/447)	15% (74/509)	3% (14/509)	7% (34/509)	10% (52/509)
Free State	28% (41/147)	54% (90/167)	21% (31/147)	1% (1/147)	8% (12/147)	2% (3/147)
Gauteng	25% (71/283)	20% (58/284)	16% (44/283)	2% (7/283)	6% (17/283)	6% (16/283)
KwaZulu-Natal	19% (83/436)	14% (45/332)	8% (37/436)	3% (11/436)	7% (31/436)	3% (14/436)
Limpopo	29% (77/266)	41% (89/218)	17% (46/266)	10% (26/266)	7% (19/266)	1% (3/266)
Mpumalanga	40% (82/205)	26% (58/224)	21% (43/205)	7% (15/205)	10% (20/205)	11% (22/205)
North West	39% (86/222)	4% (8/182)	28% (63/222)	1% (3/222)	6% (14/222)	5% (12/222)
Northern Cape	21% (23/107)	18% (11/62)	12% (12/107)	1% (1/107)	5% (5/107)	9% (10/107)
Western Cape	4% (10/279)	5% (11/223)	0% (1/279)	0% (0/279)	0% (1/279)	3% (8/279)
National	25% (614/2454)	21% (459/2139)	14% (351/2454)	3% (78/2454)	6% (153/2454)	6% (140/2454)

Appendix Table 4: Proportion (%) of facilities reporting Pentaxim, Rotavirus and Measles vaccine stock outs on the day of the call (ongoing). Results by province for 2014

Ongoing Vaccine Stock Outs	Facilities reporting at least one vaccine stock out % (#)	Facilities reporting a Rotavirus vaccine stock out % (#)	Facilities reporting a Pentaxim stock out % (#)	Facilities reporting a Measles vaccine stock out % (#)
Eastern Cape	15% (64/426)	10% (42/428)	11% (48/428)	4% (17/428)
Free State	7% (9/138)	4% (5/141)	7% (10/141)	3% (5/151)
Gauteng	4% (11/252)	3% (8/258)	3% (8/257)	2% (5/258)
KwaZulu-Natal	10% (38/392)	5% (20/401)	9% (37/401)	4% (15/401)
Limpopo	31% (73/238)	7% (16/238)	28% (67/238)	3% (6/238)
Mpumalanga	10% (17/173)	7% (13/182)	8% (15/180)	8% (15/182)
North West	13% (26/201)	5% (11/205)	11% (22/204)	5% (10/205)
Northern Cape	8% (7/92)	3% (3/97)	8% (8/97)	1% (1/97)
Western Cape	2% (4/245)	2% (4/248)	2% (4/248)	2% (4/248)
National	12% (249/2157)	6% (122/2198)	10% (219/2194)	4% (78/2198)

Appendix Table 5: Proportion (%) of facilities reporting other essential medicine (non-HIV/TB) stock outs on the day of the call (ongoing). Results by province in 2014

Ongoing Stock Outs	Facilities reporting a Salbutamol Pump stock out % (#)	Facilities Reporting a Metformin tablet Stock Out % (#)	Facilities Reporting a Sodium Valproate (Epilim) Tablet Stock Out % (#)	Facilities Reporting an Enalapril/ Perindopril Stock Out % (#)	Facilities Reporting a Ceftriaxone Stock Out % (#)
Eastern Cape	16% (79/501)	6% (28/504)	4% (18/496)	9% (46/504)	8% (41/503)
Free State	6% (8/140)	7% (6/131)	1% (2/134)	2% (3/130)	3% (4/141)
Gauteng	6% (16/286)	1% (2/284)	2% (6/275)	2% (5/281)	10% (27/280)
KwaZulu-Natal	6% (24/430)	4% (15/432)	22% (78/354)	2% (10/432)	4% (15/429)
Limpopo	8% (21/263)	7% (18/263)	4% (4/96)	10% (25/265)	13% (35/264)
Mpumalanga	19% (35/188)	1% (2/194)	5% (9/190)	4% (8/194)	7% (14/191)
North West	43% (92/214)	2% (4/217)	15% (21/140)	2% (4/215)	8% (18/215)
Northern Cape	3% (3/104)	2% (2/103)	5% (5/104)	20% (21/104)	8% (8/99)
Western Cape	3% (9/300)	0% (0/278)	1% (3/269)	1% (2/279)	1% (4/294)
National	12% (287/2426)	3% (77/2406)	7% (146/2058)	5% (124/2404)	7% (166/2416)

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