Focus for Impact

Community profile
Catchment area for Limit Hill Clinic (Ward 22)

Alfred Duma local municipality
uThukela District
KwaZulu-Natal

July 2017

Updated

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Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CCG	Community Care Givers
CDC	Centres for Disease Control and Prevention
CHC	Community Health Centres
DAC	District AIDS Council
DHIS	District Health Information System
HIV	Human Immunodeficiency Virus
HTS	HIV Testing Services
KZN	Kwa-Zulu Natal
LAC	Local AIDS Council
LGBTI	Lesbian Gay Bisexual Transgender and Intersex
MSM	Men Who Have Sex with Men
NDOH	National Department of Health
NHIRD	National Health Information Repository and Data warehouse
PEP	post-exposure antiretroviral prophylaxis
PLHIV	People living with HIV/AIDS
PrEP	pre-exposure antiretroviral prophylaxis
PWID	People Who Inject drugs
SAMPI	South Africa Multidimensional Poverty Index
SANAC	South Africa National AIDS Council
STD	Sexually Transmitted Disease
STI	Sexually Transmitted Infection
TB	Tuberculosis

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Focus for Impact – understanding the background

At the heart of the NSP 2017-2022, is the strategy to "focus for impact" using the more detailed information and insights which have become available. While comprehensive prevention and care will be provided countrywide, intensified, concentrated efforts will be made in HIV and TB high burden areas. In these high-burden areas, redoubled efforts will draw on detailed, innovative data sources (such as geospatial mapping) to identify those most at risk. This will lead to saturation of high-impact prevention and treatment services and strengthened efforts to address the social and structural factors that increase vulnerability to infection. Nationally, but especially within these high-burden areas, key and vulnerable populations most heavily affected by the epidemics will receive intensified focus to empower them, improve service access and reduce barriers to service uptake. The "focus for impact" approach represents a new, transformative way to achieve reductions in the morbidity and mortality associated with HIV and TB and morbidity from STIs. In line with the evidence, there will be a substantially stronger focus on adolescent girls and young women as well as key and vulnerable populations, not forgetting adolescent boys and young men.

The process for identifying high-burden areas for intensification of efforts dates back to September 2015, when the SANAC Secretariat established the Hotspot Mapping Advisory Committee. The Committee – including governmental and non-governmental epidemiological experts as well as international partners – was tasked with developing a transparent, multi-sectoral, locally informed and user-friendly approach to Focus for Impact.

An approach was developed that use geospatial mapping and risk profiling to allow stakeholders to have a more granular understanding of geospatial variations in HIV, TB and STI burden. The ***model aims to answer four key questions***:

(a) ***Where*** in a particular district ***are the areas with the highest HIV and/or TB burden***?

(b) ***Why*** does a ***specific area*** have a higher HIV and/or TB burden (i.e. what are the contributing/associated factors)?

(c) ***Who*** are the most vulnerable populations?

(d) ***Which multi-sectoral interventions*** may be deployed in the high-burden area to reduce associated HIV and/or

To maximise the impact of efforts, the NSP introduces this more intensified, more strategic focus at provincial, district and ward levels. There will be a greater priority on primary prevention and on strategies to address the social and structural drivers of the three infections in a thoroughly multi-sectoral manner. South Africa's recent success in scaling up prevention and treatment programmes will be complemented by an equivalent focus on improving service quality and on reducing loss to follow-up among people who initiate care, while simultaneously implementing the new "test and treat" policy. Recognising that different people require different prevention approaches, differentiated care models will be scaled up to tailor interventions to each person's needs, including increased link with community-centred service delivery. Priority is given to ensuring that treatment programmes are holistic and address each person's health needs, including co-morbidities. The success of this approach will stem from the collection and timely use of high-quality data to guide and inform programmes and policies.

The ultimate success of the NSP 2017 – 2022, relies on effective implementation at the provincial, district and ward levels. From the national to the local context, three levels of focus will accelerate implementation of the Plan and optimise its impact:

- ***Spatial location:*** The NSP calls for steps to ensure the delivery of comprehensive services to all who need them, regardless of where they live. In cognisance of the marked geographic variation in disease burden, intensified action is required in localised areas of high burden for intensified action. In each of these high-burden areas:
  1) ambitious coverage targets will be set;
  2) current and new programmes will focus strategically on those in greatest need; and
  3) other strategies will be intensified to address the social and structural factors that increase individual and community vulnerabilities which contribute to the disease burdens.

  This component links with the first question that the Focus for Impact model aims to answer: *"Where in a particular district are the areas with the highest HIV and/or TB burden?"*

- ***Population and community profile:*** The community profile is completed once a high burden area is identified using secondary data from multiple sources (health, education, socio-economic) and the provision and utilisation of services is described. The engagement with the community is to identify priorities of the risks for HIV, TB and STIs in that specific area and gaps in service delivery to address these priorities.

  In each of these high-burden areas, programmatic efforts will be strategically targeted towards the populations among whom the need is greatest, and where the impact of efforts will be most pronounced. Given the degree to which transmission among adolescent girls and young women is driving HIV across the country, *every* province, district and ward must take steps to intensify efforts to reduce new HIV infections and increase service access for adolescent girls and young women, including addressing the social and structural factors that increase their vulnerability. Guided by local data and circumstances from geospatial mapping and profiling, provincial and local responses should prioritise key and vulnerable populations.

  This component links with the second question that the Focus for Impact model aims to answer: *"Why does a specific area have a higher HIV and/or TB burden (i.e. what are the contributing/associated factors)?"*

- ***Multi-sectoral interventions:*** Enhanced focus is also needed on the combination of interventions that are prioritised for scale-up. Priority will be placed on implementing the right mix of high-value, high-impact interventions that will maximise the number of new infections and deaths averted.

  This component links with the third question that the Focus for Impact model aims to answer: *"Which multi-sectoral interventions may be deployed in the high-burden area to reduce associated HIV and/or TB risks?"*

Multi-sectoral refers to deliberate collaboration among various stakeholder groups (e.g., government, civil society, and private sector) and sectors (e.g., health, environment, economy) to jointly achieve a common goal. In this case reducing the associated risks in high burden areas

Introduction to Profile

This profile presents secondary (public and non-public) data on the HIV and TB epidemics and population demographic profile, enriched with information collected from the community identified associated risk factors, services and assets in Alfred Duma local municipality in the uThukela district, KwaZulu Natal. The latest available ward level population data is that from Census 2011. This is used as the basis for the population data and aligned with boundaries within this report.

The profile is intended to give the AIDS Councils and any other planning groups a thorough understanding of the HIV, TB and STI related context within this district. By reflecting who is at risk of becoming HIV infected and where they are within a specific location, the profile assists to identify the people who are in need of prevention and care services

The profile highlights factors that influence the risks of HIV and TB infection. Such factors include the socio-economic status e.g. structural measures of poverty; sexual risk behaviours such as condom use, multiple sexual partnerships and transactional sex in a given population in a specific service area and/or administrative area. The same applies to data on exposure to psycho-active substances, report or history of sexually transmitted infections (STIs). Data is presented at the level that it is available. The risk factors are explored within the categories of the socio-demographic data (e.g., age, sex, race, educational status) at wards level.

The profile for this specific area includes two types of data: 1) secondary (public and non-public) data and 2) local knowledge and understanding of what influences the associated risk profile. Information that reflects the local knowledge and understanding of the associated risk profile for the area is collected through community engagement through stakeholder and community workshops in the specific catchment area. More detail on the approach is described in Appendix C: Methodology for stakeholder engagement to explore local level data.

For this profile, the catchment area for Limit Hill Clinic, Alfred Duma local municipality is defined as Alfred Duma Ward 22. For this specific profile, two stakeholder and community workshops held on 25 and 26 July 2017 in the District Training and Resource Centre, Ladysmith. The workshops were attended by 43 stakeholders and community members during these two days. As more local level profiles are completed within the local municipality, a richer picture of the context within Alfred Duma local municipality will evolve. The same applies to more granular data that becomes available for this specific catchment area. This profile will be updated accordingly and should therefore be considered a living document.

During the workshops participants identified the following priorities for consideration during the implementation of multi-sectoral interventions and focus of key and vulnerable populations to reduce the HIV associated risk in the Limit Hill clinic catchment area:

- Key and vulnerable populations:
  - Young women and girls
  - Orphans and vulnerable children
  - People who use drugs
- Interventions that address:
  - Sexual abuse and gender based violence – especially non-reporting of cases
  - Stigma and discrimination against PLHIV
  - Correct and consistent condom use
  - Lack of knowledge about how to prevent HIV infection especially among youth and the elderly
  - High rate of substance abuse and drugs (increasingly with intravenous drugs) that contributes to high risk behaviour
  - Increased uptake of testing by men

1. Socio-demographic profile

1.1 Demarcated boundaries

Uthukela District is one of the 11 district municipalities of KwaZulu-Natal province. The Alfred Duma local municipality is one of the three Local Municipalities in Uthukela district (2016 boundaries). Alfred Duma was formed by merging the former Emnambithi/Ladysmith and Indaka Local Municipalities as shown in Figure 1: Local Municipalities Uthukela district (2011 boundaries to align with Census data at ward level). The data represented in this report is directly linked to the previous municipality and ward determinations and will therefore be visualised as such. The rest are Okhahlamba and Inkosi Langalibalele (formed by the merging Imbabazane uMtshezi) local municipalities.

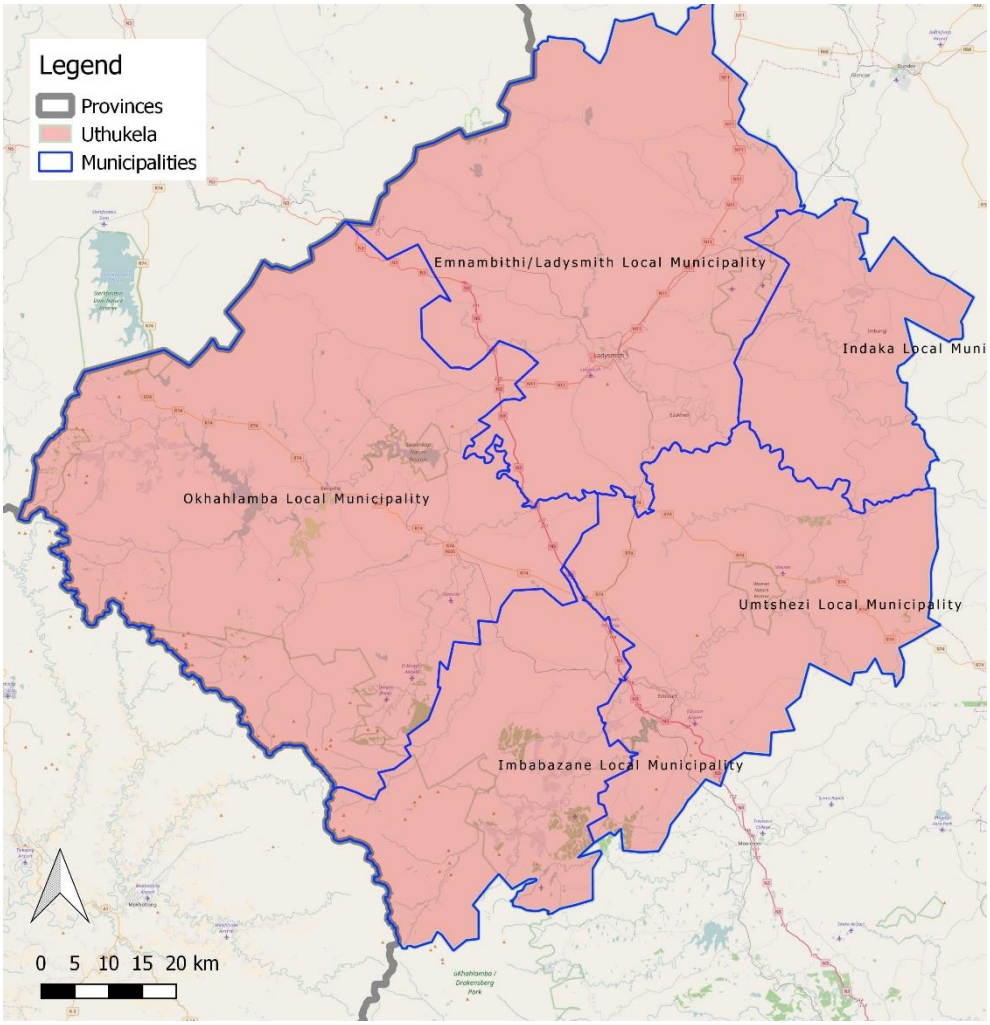

Figure 1: Local Municipalities Uthukela district

The Alfred Duma local municipality constitute of 37 administrative wards (see Figure 2).

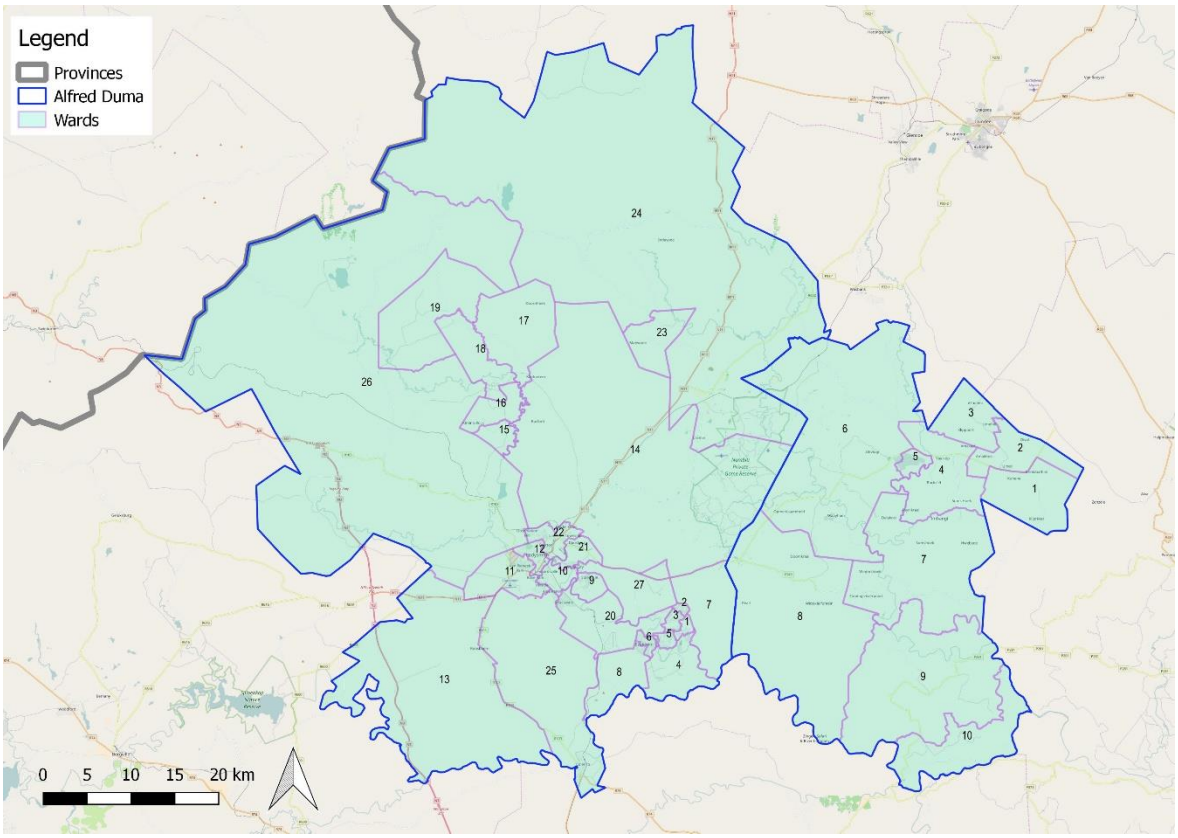

Figure 2: Distribution of Wards in the Alfred Duma (former Emnambithi/Ladysmith and Indaka) local municipality

1.2 Population by sex and age

During the 2011 Census 340 449 were counted in the 37 wards that constituted the former local municipalities. Table 1 summarises the age and sex per population in these wards. Females constitute 54% of population, compared to males at 46%. Young people ≤ 25 years (57%) make up the majority of population in the local municipality. The detail for Ward 22 that forms the catchment area for Limit Hill Clinic is highlighted in the table below.

Table 1: Population per age groups per ward, Alfred Duma (former Emnambithi/Ladysmith and Indaka) local municipality

Ward	Age							Sex		
	0-9	10-14	15-19	20-24	25-49	50+	Total	Female	Male	Total
Emnambithi/Ladysmith										
Ward 001	1899	915	918	909	2829	1113	8583	4602	3981	8583
Ward 002	1575	714	693	732	2529	1134	7377	4077	3300	7377
Ward 003	2418	1098	1104	1014	3627	1299	10560	5721	4839	10560
Ward 004	1320	612	654	579	1695	774	5634	3045	2589	5634
Ward 005	2205	909	918	885	2838	1107	8862	4791	4071	8862
Ward 006	2190	900	891	1074	3423	1062	9540	5298	4242	9540
Ward 007	2358	993	1179	1005	2163	993	8691	4923	3768	8691

Ward	Age							Sex		
	0-9	10-14	15-19	20-24	25-49	50+	Total	Female	Male	Total
Ward 008	1494	735	714	708	2160	867	6678	3633	3045	6678
Ward 009	2493	1023	996	1128	3819	939	10398	5478	4920	10398
Ward 010	1266	507	618	798	2544	921	**6654**	3345	3309	**6654**
Ward 011	963	558	564	726	3162	1611	**7584**	3768	3816	**7584**
Ward 012	765	408	396	510	2811	1599	**6489**	3417	3072	**6489**
Ward 013	3390	1557	1518	1194	3552	1377	**12588**	6603	5985	**12588**
Ward 014	3102	1407	1356	1176	3276	1776	**12093**	6357	5736	**12093**
Ward 015	1914	837	906	852	2319	1134	**7962**	4173	3789	**7962**
Ward 016	1803	813	852	738	2022	1080	**7308**	3861	3447	**7308**
Ward 017	1962	903	978	738	1968	1377	**7926**	4281	3645	**7926**
Ward 018	1917	906	981	753	2352	1308	**8217**	4254	3963	**8217**
Ward 019	1863	828	903	762	1920	1437	**7713**	3999	3714	**7713**
Ward 020	2409	1137	1032	1110	3909	1485	**11082**	5802	5280	**11082**
Ward 021	1806	756	804	912	3198	1050	**8526**	4533	3993	**8526**
Ward 022	1812	1002	873	867	4341	1488	**10383**	5514	4869	**10383**
Ward 023	1989	1050	930	636	1806	1236	**7647**	4077	3570	**7647**
Ward 024	2190	993	909	789	2184	1323	**8388**	4323	4065	**8388**
Ward 025	2010	978	897	867	3243	1611	**9606**	5118	4488	**9606**
Ward 026	1386	609	552	591	2391	858	**6387**	3054	3333	**6387**
Ward 027	3726	1638	1632	1500	4341	1638	**14475**	7722	6753	**14475**
Indaka										
Ward 001	2868	1383	1425	840	2109	1620	**10245**	5379	4866	**10245**
Ward 002	3267	1485	1617	927	2532	1629	**11457**	6153	5304	**11457**
Ward 003	2808	1218	1275	828	2121	1650	**9900**	5316	4584	**9900**
Ward 004	3207	1491	1473	1014	2319	1614	**11118**	6153	4965	**11118**
Ward 005	2373	1032	1005	900	2295	1359	**8964**	4884	4080	**8964**
Ward 006	2811	1290	1374	963	2028	1212	**9678**	5295	4383	**9678**
Ward 007	3450	1503	1428	879	1971	1161	**10392**	5793	4599	**10392**
Ward 008	3582	1476	1512	978	2286	1338	**11172**	6234	4938	**11172**
Ward 009	3585	1461	1386	918	2280	1335	**10965**	6171	4794	**10965**
Ward 010	2808	1281	1143	798	2043	1134	**9207**	5220	3987	**9207**
	84984	**38406**	**38406**	**32598**	**98406**	**47649**	**340449**	**182367**	**158082**	**340449**
	25%	**11%**	**11%**	**10%**	**29%**	**14%**		**54%**	**46%**	

Table 2 reflects the sex and age breakdown of the youth between 10 and 35 years for the same geographic area.

Table 2: Youth population per sex and five-year age groups per ward, Alfred Duma (Emnambithi/Ladysmith and Indaka) local municipality

Ward	Female					Male					
	10-14	15-19	20-24	25-29	30-34	10-14	15-19	20-24	25-29	30-34	
Emnambithi/ Ladysmith											
Ward 001	438	459	453	435	342	477	459	456	396	297	**4212**
Ward 002	366	345	375	429	339	348	348	357	393	267	**3567**
Ward 003	531	561	561	543	432	567	543	453	504	384	**5079**
Ward 004	279	333	318	255	204	333	321	261	261	198	**2763**
Ward 005	444	444	489	456	372	465	474	396	420	306	**4266**
Ward 006	438	450	585	591	462	462	441	489	444	348	**4710**
Ward 007	480	603	606	450	318	513	576	399	300	192	**4437**
Ward 008	342	369	396	360	270	393	345	312	333	234	**3354**
Ward 009	546	501	567	600	507	477	495	561	564	453	**5271**
Ward 010	258	324	360	348	291	249	294	438	432	315	**3309**
Ward 011	285	282	390	327	258	273	282	336	648	294	**3375**
Ward 012	216	210	264	402	309	192	186	246	363	303	**2691**
Ward 013	777	762	618	588	420	780	756	576	498	369	**6144**
Ward 014	669	672	588	516	417	738	684	588	498	339	**5709**
Ward 015	399	441	426	369	294	438	465	426	318	273	**3849**
Ward 016	393	432	378	333	252	420	420	360	318	225	**3531**
Ward 017	429	480	420	318	261	474	498	318	267	207	**3672**
Ward 018	435	462	396	381	252	471	519	357	357	288	**3918**
Ward 019	402	471	381	270	210	426	432	381	294	237	**3504**
Ward 020	537	537	570	549	414	600	495	540	525	441	**5208**
Ward 021	375	399	474	477	411	381	405	438	420	387	**4167**
Ward 022	501	468	432	570	477	501	405	435	459	435	**4683**
Ward 023	507	495	330	321	201	543	435	306	228	189	**3555**
Ward 024	462	423	396	336	225	531	486	393	282	222	**3756**
Ward 025	501	450	432	447	396	477	447	435	432	327	**4344**
Ward 026	276	279	291	327	222	333	273	300	393	261	**2955**
Ward 027	783	807	795	696	561	855	825	705	555	450	**7032**
Indaka											
Ward 001	684	678	417	333	252	699	747	423	270	177	**4680**
Ward 002	696	780	504	405	297	789	837	423	330	261	**5322**
Ward 003	570	630	426	378	246	648	645	402	273	204	**4422**
Ward 004	729	762	609	408	279	762	711	405	300	219	**5184**
Ward 005	516	534	462	396	252	516	471	438	282	240	**4107**
Ward 006	618	717	519	369	276	672	657	444	267	168	**4707**
Ward 007	723	696	555	420	276	780	732	324	177	129	**4812**
Ward 008	729	762	603	489	309	747	750	375	246	162	**5172**
Ward 009	759	732	570	423	354	702	654	348	228	207	**4977**
Ward 010	630	594	480	387	258	651	549	318	216	153	**4236**
	18723	**19344**	**17436**	**15702**	**11916**	**19683**	**19062**	**15162**	**13491**	**10161**	**160680**

Figure 3 below reflects the population pyramid for Alfred Duma local municipality. This figure visualises sex (male and female) and age in five-year age bands for this population. It is noted that the biggest group is in the age group is0-4, followed by 10-14, then 15-19-year olds.

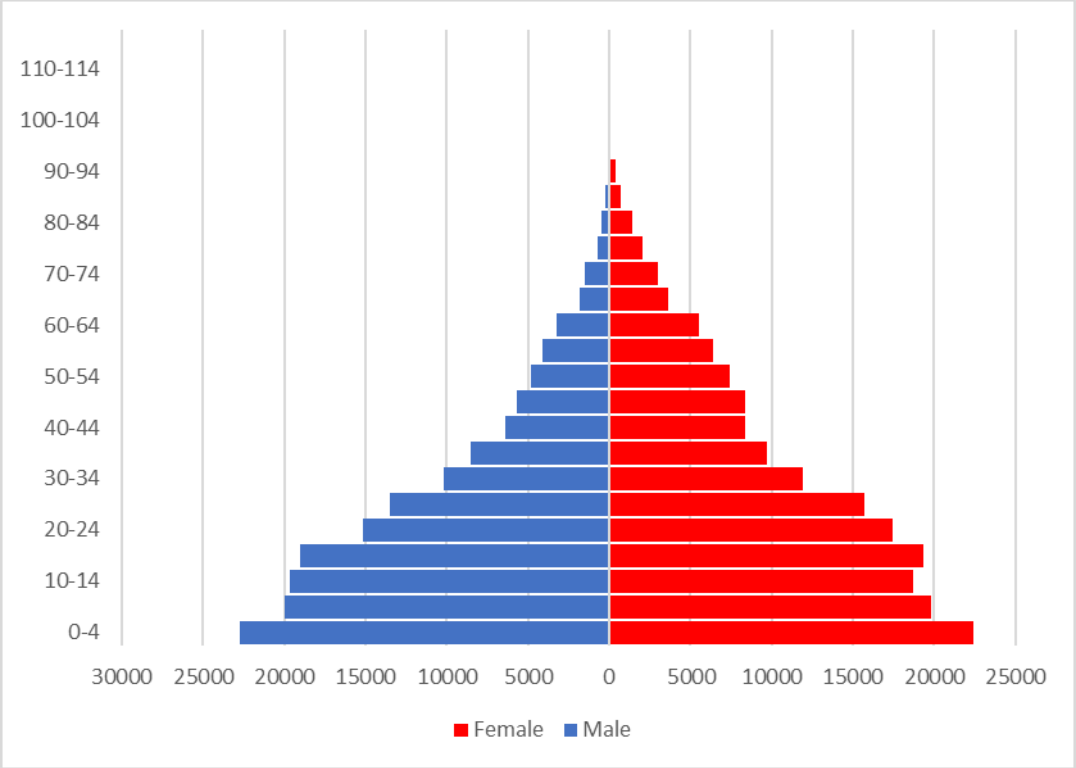

Figure 3: Population Pyramid Alfred Duma local municipality

From this population, 36% children and 5% elderly are dependent on the 59% economically active population of the Alfred Duma local municipality (Figure 4).

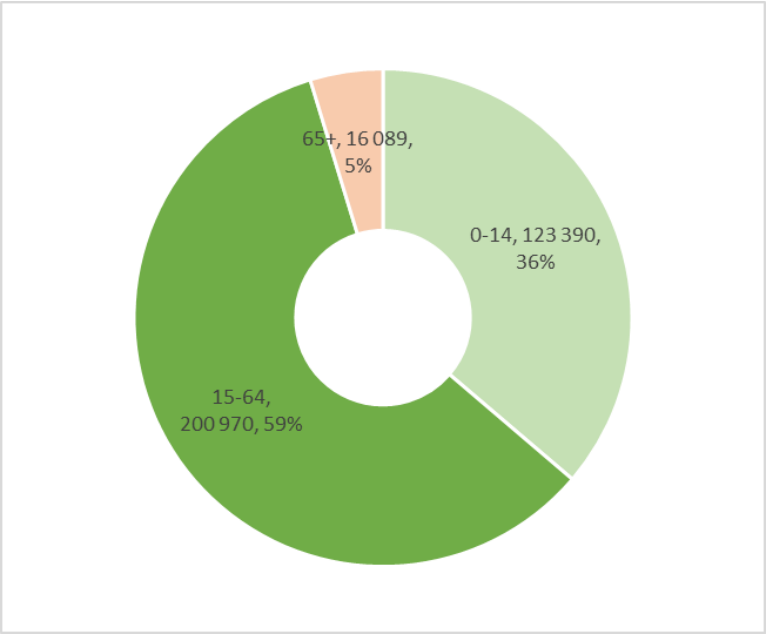

Figure 4: Dependency ratio Alfred Duma local municipality (Calculated from Source Census 2011)

In the catchment area for the Limit Hill Clinic (Alfred Duma Ward 22) there is a change in the population profile (Figure 5) with a smaller 20-24 age group and different male to female distribution to that seen in the Alfred Duma local municipality population pyramid in Figure 3.

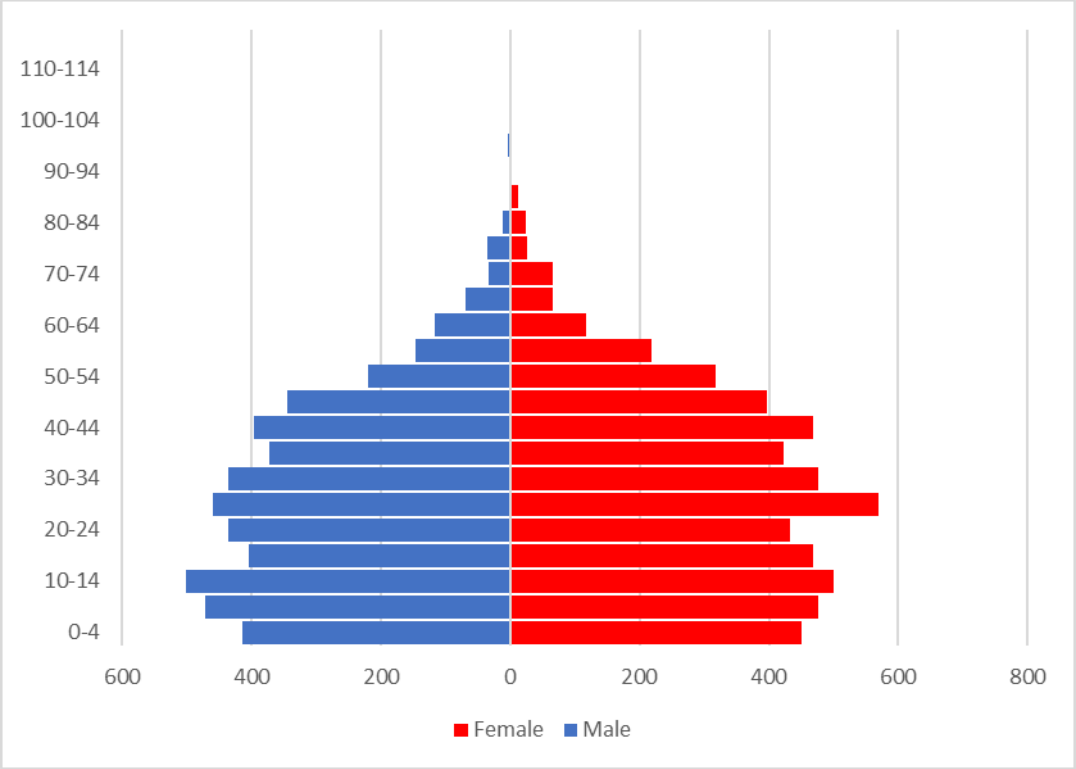

Figure 5: Population Pyramid Limit Hill clinic catchment area (Calculated from source Census 2011)

In the same catchment population, 27% children and 3% elderly are dependent on the 70% economically productive ages (Figure 6).

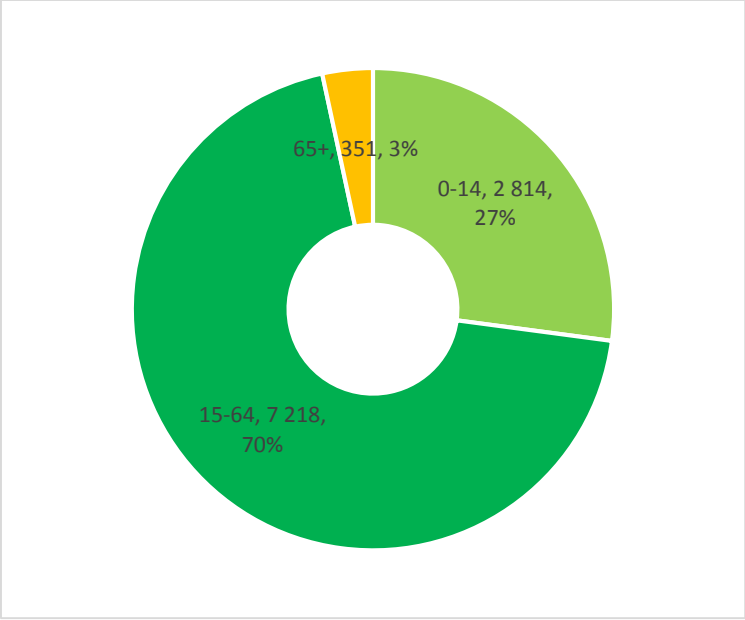

Figure 6: Dependency ratio Limit Hill clinic catchment area (Calculated from Source Census 2011)

1.3 Population by race

The dominant population group in Alfred Duma local municipality is Black African at 94.1% followed by Asian at 3.1% (detail in Figure 7 and Table 3).

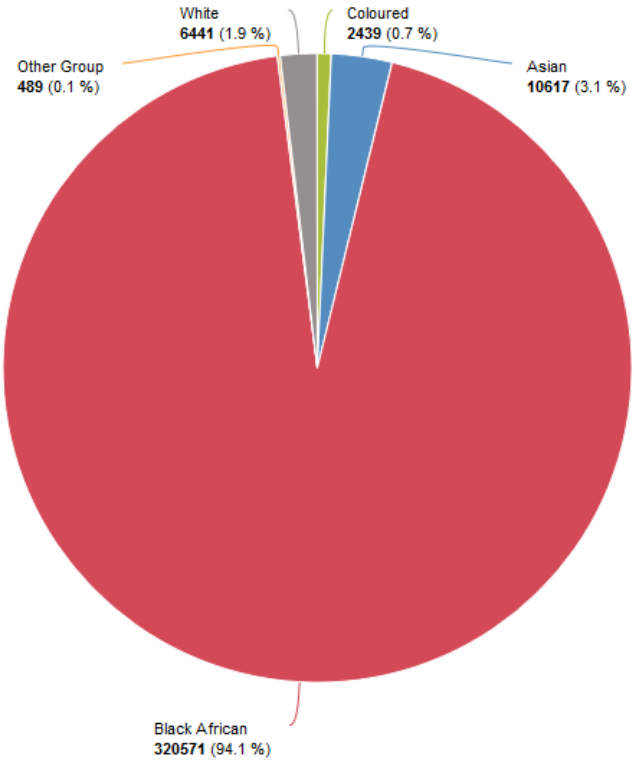

Figure 7: Population group distribution in Alfred Duma local municipality (Source Census 2011)

The detail for Ward 22 that forms the catchment area for Limit Hill Clinic is highlighted in the table below.

Table 3: Ward level population distribution by Race in Alfred Duma local municipality

Ward	Asian	Black African	Coloured	Other	White	Total
Emnambithi/Ladysmith						
Ward 001	6	8535	18	6	3	**8568**
Ward 002	12	7338	24		3	**7377**
Ward 003	6	10494	24	21	9	**10554**
Ward 004		5616	9		9	**5634**
Ward 005	12	8853	6	3		**8874**
Ward 006	6	9501	21	15	6	**9549**
Ward 007	30	8649	21			**8700**
Ward 008		6684				**6684**
Ward 009	12	10290	105	12		**10419**
Ward 010	930	5541	132	27	18	**6648**
Ward 011	3162	3138	276	69	951	**7596**
Ward 012	660	2916	225	78	2619	**6498**

Ward	Asian	Black African	Coloured	Other	White	Total
Ward 013		12555	12		15	**12582**
Ward 014	24	11895	30	9	147	**12105**
Ward 015	3	7944	6	6	6	**7965**
Ward 016	3	7287	3		3	**7296**
Ward 017	12	7914	3			**7929**
Ward 018	6	8214	6			**8226**
Ward 019	105	7539	12	3	54	**7713**
Ward 020	2781	7848	375	51	24	**11079**
Ward 021	21	8463	33	18	6	**8541**
Ward 022	213	7791	642	15	1722	**10383**
Ward 023	9	7632	6	3	6	**7656**
Ward 024	21	8151	18	27	183	**8400**
Ward 025	2130	6867	252	39	309	**9597**
Ward 026	240	5829	39	42	243	**6393**
Ward 027	27	14370	39	6	33	**14475**
Indaka						
Ward 001	24	10212	18		6	**10260**
Ward 002	24	11397	33	9	3	**11466**
Ward 003	39	9849	3	6	6	**9903**
Ward 004	9	11100	9		3	**11121**
Ward 005	27	8919	9		12	**8967**
Ward 006	15	9630	3	6	30	**9684**
Ward 007	21	10353	6	9	3	**10392**
Ward 008	12	11139	6	3	3	**11163**
Ward 009	6	10950	6		3	**10965**
Ward 010	9	9168	9	6	3	**9195**
Total	**10617**	**320571**	**2439**	**489**	**6441**	**340557**

2. Epidemiological profile

2.1 Causes of death

With the roll out of ART in South Africa, AIDS is now considered a chronic disease since many people living with HIV are living longer. The main causes of death, the uThukela district is TB (xxx%) followed by HIV (xxx%) (Table 4). The profile would also show five year series to show the trend of deaths over the past 5 years comparing AIDS related deaths and all-cause mortality at a local level.

Table 4: Main cause of deaths in the uThukela District (Source STATSSA)

Cause	Number of deaths	Percent deaths

2.2 HIV

The figures that follow below reflects the HIV positivity rate based on the routine health data collected, collated and reported in health facilities in the uThukela district. The definitions for these indicators can be found in Appendix B: Terms, Definitions and calculations.

Due to the small numbers at a local level, it is not included at ward level in this report. See note on small number in Appendix A: Selecting Data for the Profile.

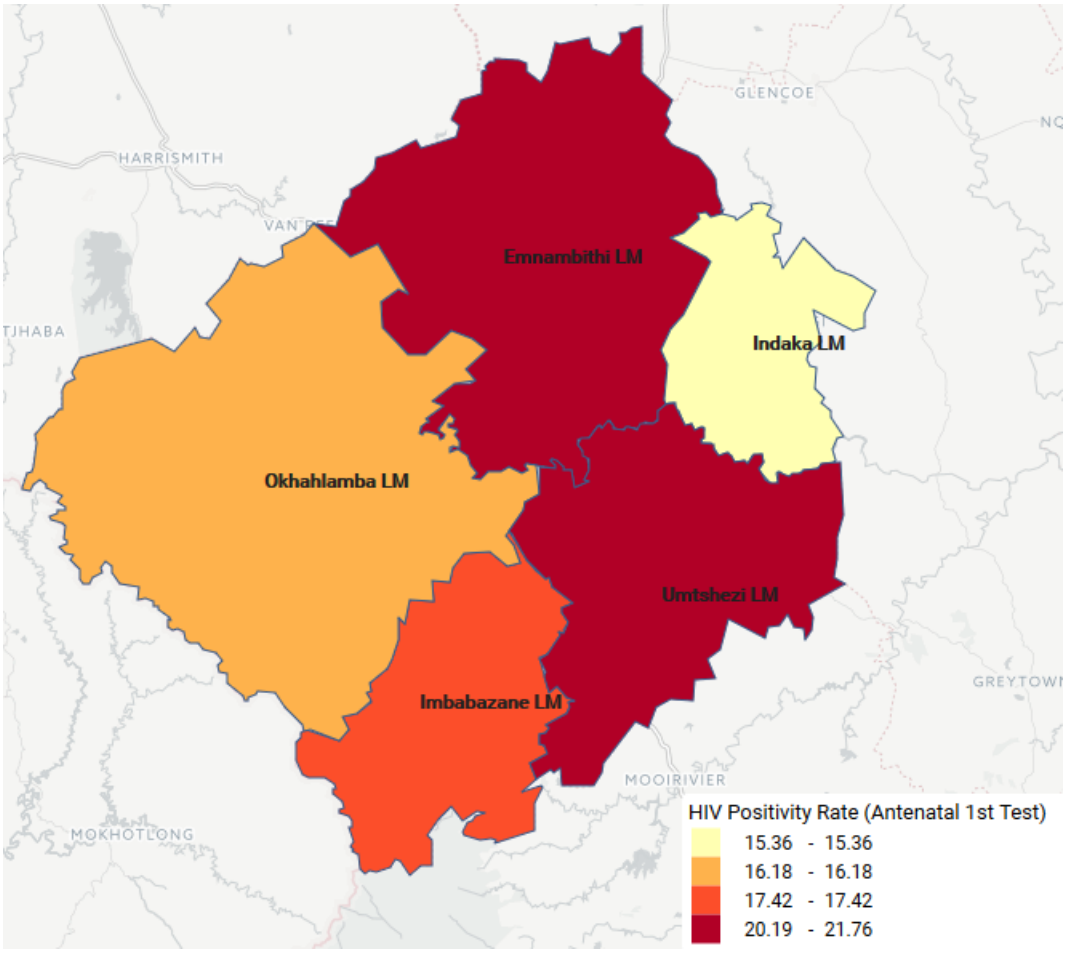

Figure 8: ANC client HIV 1st test positive rate Uthukela district (Source: KZN DHIS 2015)

Table 5: HIV Positivity Rate (Antenatal 1st Test) Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **18.5 %**								
	local municipality	**2015 : HIV Positivity Rate (Antenatal 1st Test)**					**NUM %**	**DEN %**
1	kz Indaka local municipality	15.36	%	(239	/	1556)	11.86 %	14.25 %
2	kz Okhahlamba local municipality	16.18	%	(368	/	2275)	18.25 %	20.84 %
3	kz Imbabazane local municipality	17.42	%	(289	/	1659)	14.34 %	15.20 %
4	kz Emnambithi local municipality	20.19	%	(786	/	3893)	38.99 %	35.66 %
5	kz Umtshezi local municipality	21.76	%	(334	/	1535)	16.57 %	14.06 %

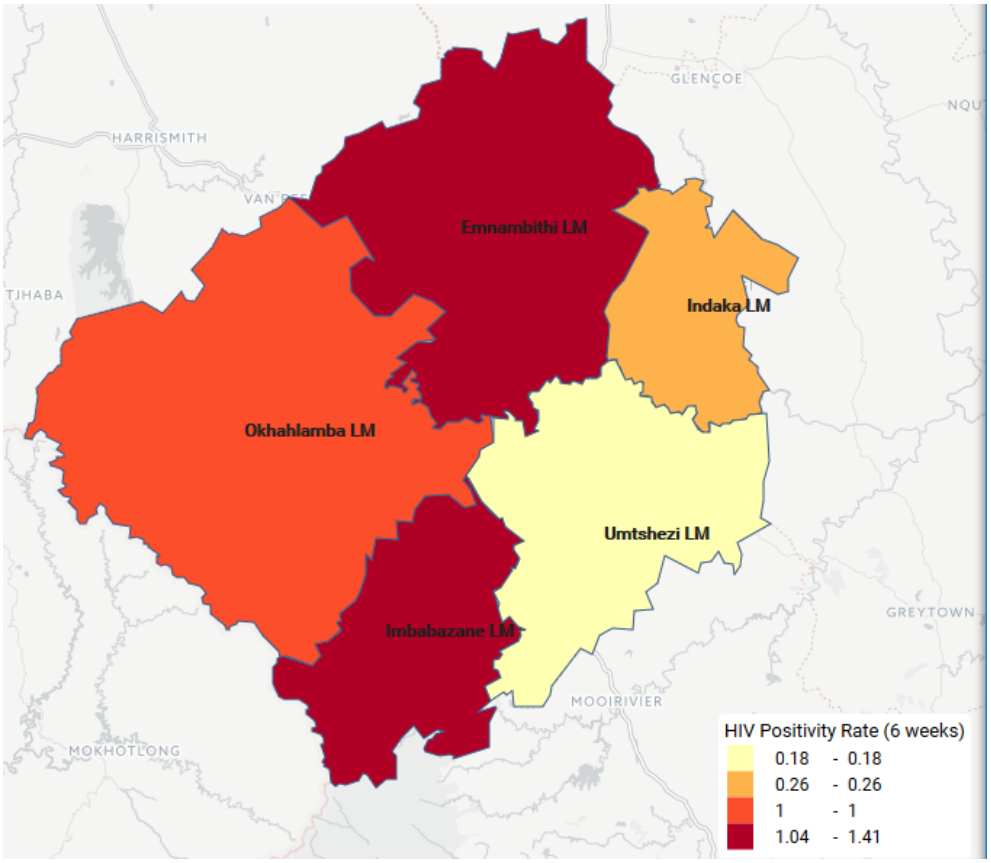

Figure 9: Infant 1st PCR test positive around 6 weeks rate Uthukela district (Source: KZN DHIS 2015)

Table 6: HIV Positivity Rate (6 weeks) Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **0.9 %**								
	local municipality	**2015 : HIV Positivity Rate (6 weeks)**					**NUM %**	**DEN %**
1	kz Umtshezi local municipality	0.18	%	(1	/	544)	3.03 %	15.54 %
2	kz Indaka local municipality	0.26	%	(1	/	381)	3.03 %	10.88 %
3	kz Okhahlamba local municipality	1	%	(7	/	699)	21.21 %	19.97 %
4	kz Imbabazane local municipality	1.04	%	(7	/	672)	21.21 %	19.19 %
5	kz Emnambithi local municipality	1.41	%	(17	/	1205)	51.52 %	34.42 %

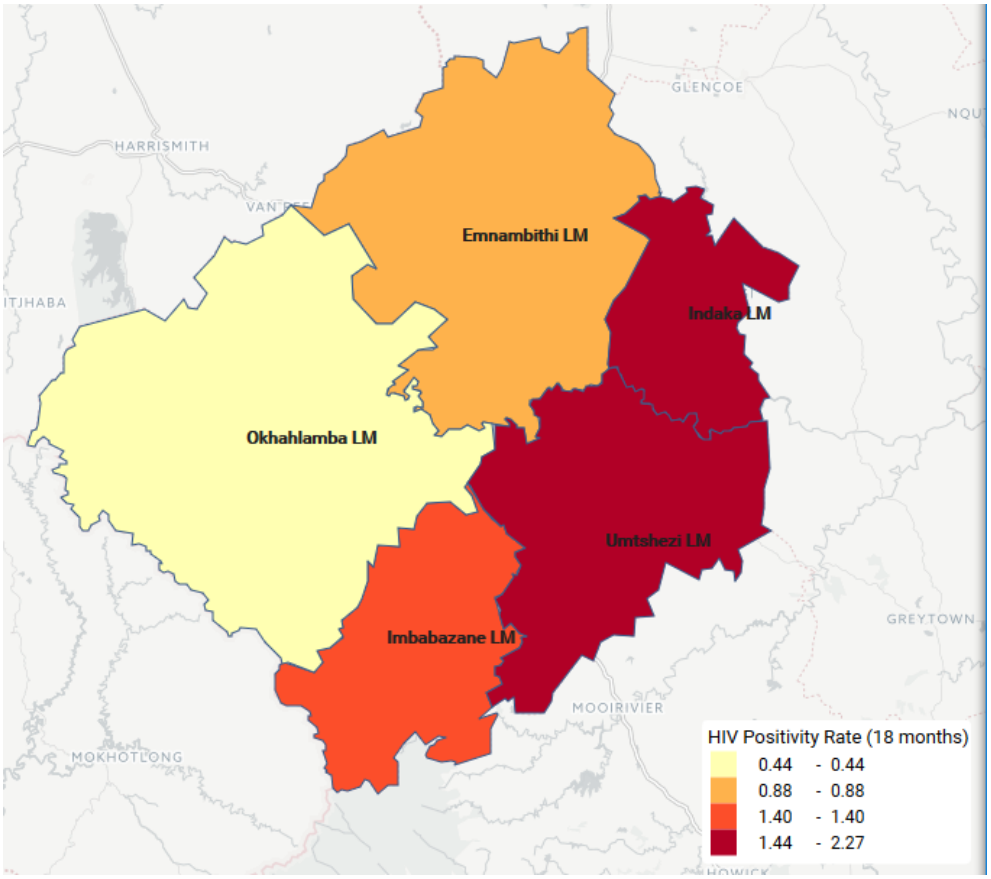

Figure 10: Infant rapid HIV test around 18 months positive rate Uthukela district (Source: KZN DHIS 2015)

Table 7: HIV Positivity Rate (18 months) Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **1.1 %**									
	local municipality	**2015 : HIV Positivity Rate (18 months)**					**NUM %**	**DEN %**
1	kz Okhahlamba local municipality	0.44	%	(7	/	1582)	10.45 %	26.10 %
2	kz Emnambithi local municipality	0.88	%	(16	/	1824)	23.88 %	30.09 %
3	kz Imbabazane local municipality	1.40	%	(15	/	1071)	22.39 %	17.67 %
4	kz Indaka local municipality	1.44	%	(12	/	834)	17.91 %	13.76 %
5	kz Umtshezi local municipality	2.27	%	(17	/	750)	25.37 %	12.37 %

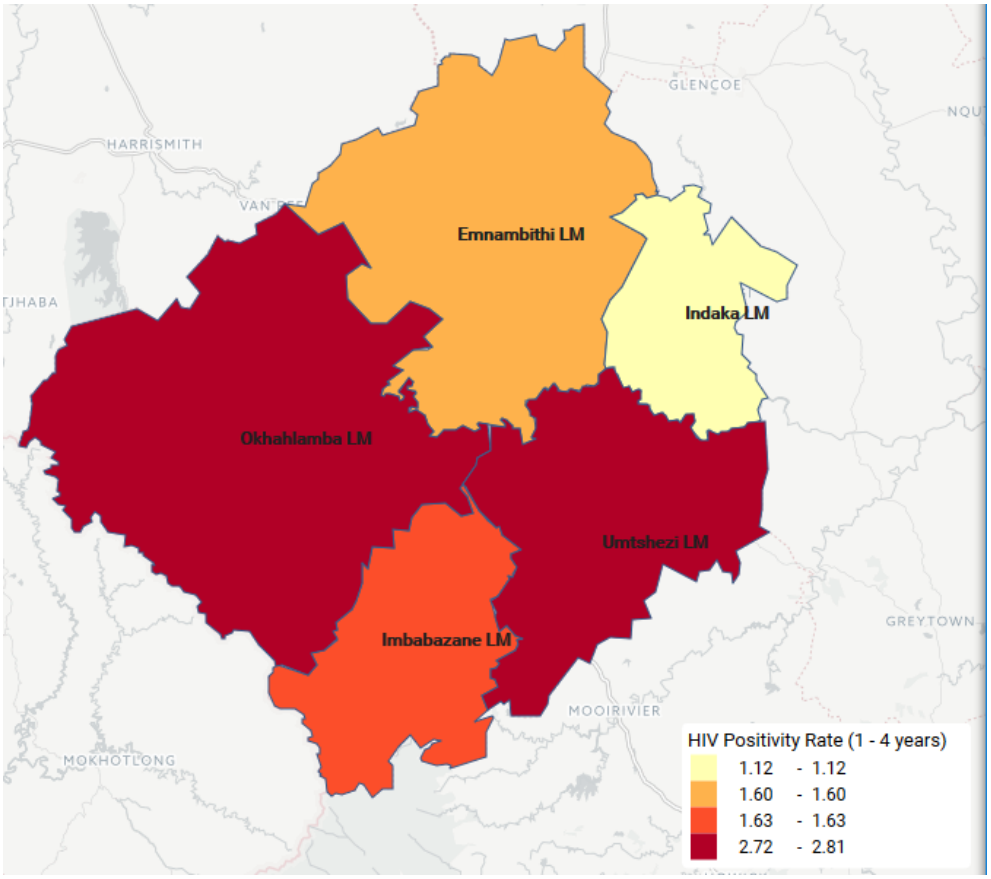

Figure 11: HIV test positive child 12-59 months rate Uthukela district (Source: KZN DHIS 2015)

Table 8: HIV Positivity Rate (12-59 months) Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **1.9 %**								
	local municipality	**2015 : HIV Positivity Rate (1 - 4 years)**					**NUM %**	**DEN %**
1	kz Indaka local municipality	1.12	%	(19	/	1693)	9.27 %	15.77 %
2	kz Emnambithi local municipality	1.60	%	(60	/	3750)	29.27 %	34.93 %
3	kz Imbabazane local municipality	1.63	%	(30	/	1839)	14.63 %	17.13 %
4	kz Umtshezi local municipality	2.72	%	(28	/	1031)	13.66 %	9.60 %
5	kz Okhahlamba local municipality	2.81	%	(68	/	2423)	33.17 %	22.57 %

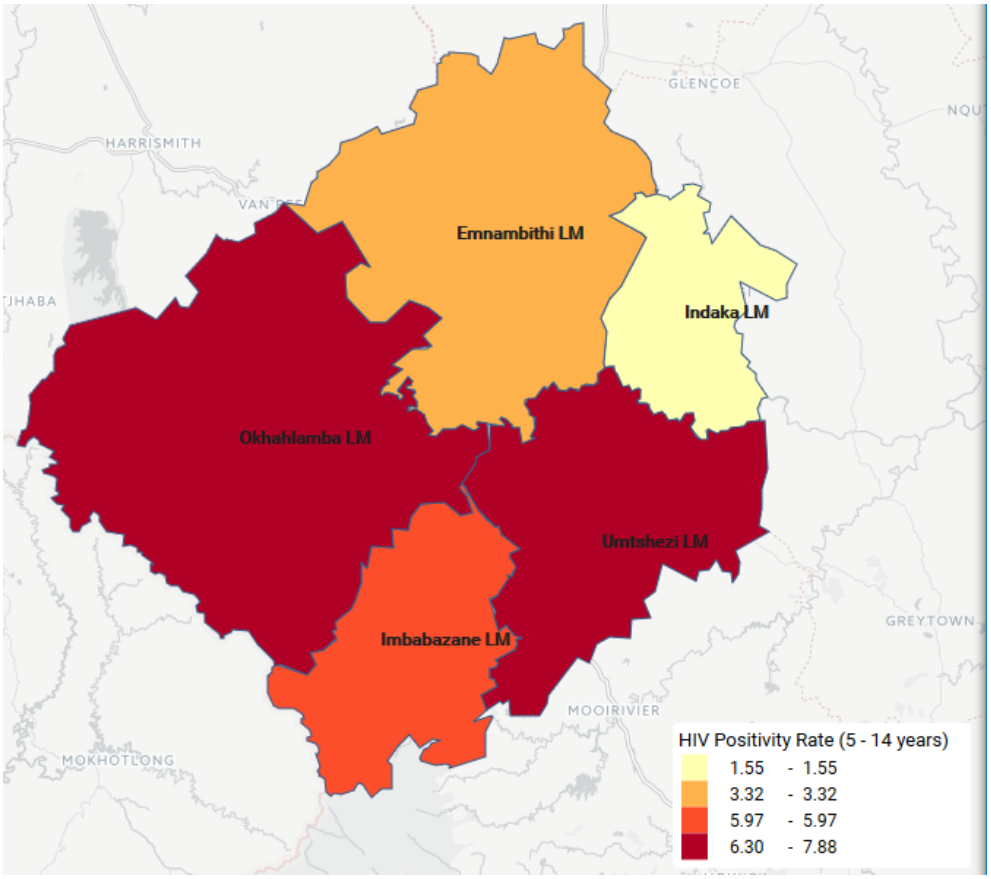

Figure 12: HIV test positive child 5-14 years rate Uthukela district (Source: KZN DHIS 2015)

Table 9: HIV Positivity Rate (5 - 14 years) Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **4.7 %**								
	local municipality	**2015 : HIV Positivity Rate (5 - 14 years)**					**NUM %**	**DEN %**
1	kz Indaka local municipality	1.55	%	(16	/	1032)	6.18 %	18.75 %
2	kz Emnambithi local municipality	3.32	%	(67	/	2017)	25.87 %	36.65 %
3	kz Imbabazane local municipality	5.97	%	(37	/	620)	14.29 %	11.27 %
4	kz Umtshezi local municipality	6.30	%	(22	/	349)	8.49 %	6.34 %
5	kz Okhahlamba local municipality	7.88	%	(117	/	1485)	45.17 %	26.99 %

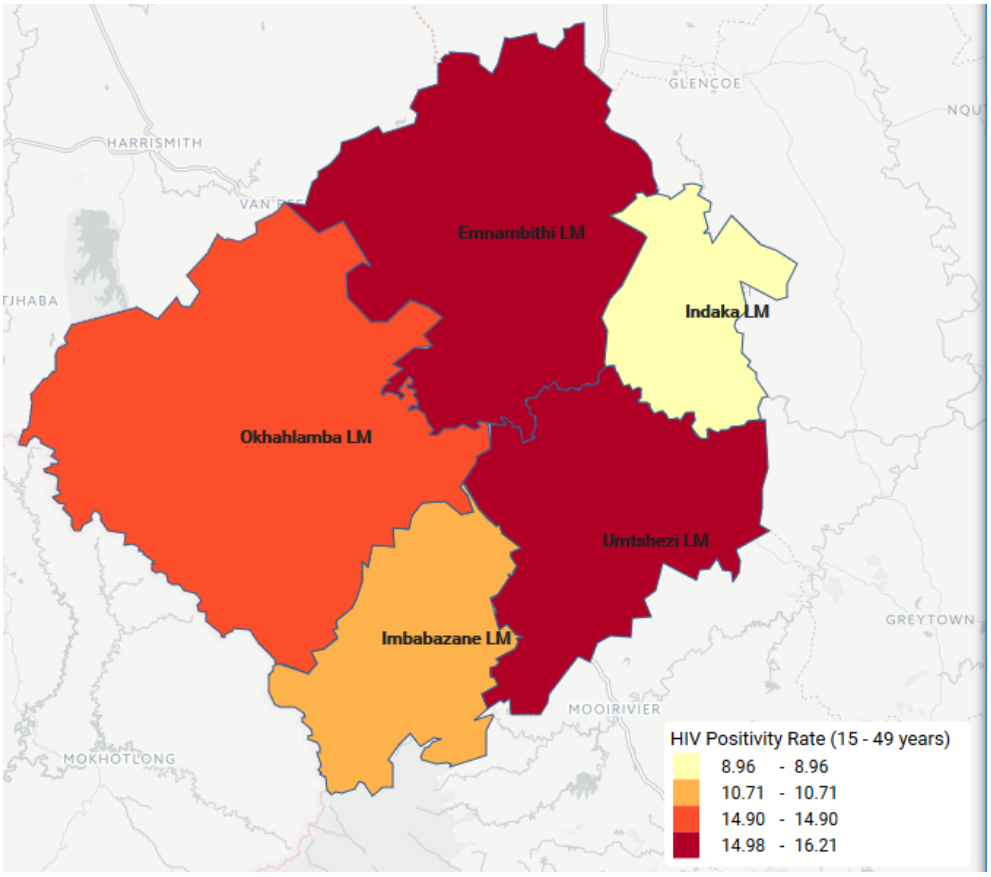

Figure 13: HIV prevalence amongst client tested 15-49 years rate Uthukela district (Source: KZN DHIS 2015)

Table 10: HIV Positivity Rate (15 - 49 years) Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **13.7 %**								
	local municipality	**2015 : HIV Positivity Rate (15 - 49 years)**					**NUM %**	**DEN %**
1	kz Indaka local municipality	8.96	%	(1031	/	11509)	9.14 %	13.95 %
2	kz Imbabazane local municipality	10.71	%	(1275	/	11908)	11.30 %	14.43 %
3	kz Okhahlamba local municipality	14.90	%	(2392	/	16051)	21.20 %	19.46 %
4	kz Emnambithi local municipality	14.98	%	(4754	/	31728)	42.13 %	38.46 %
5	kz Umtshezi local municipality	16.21	%	(1833	/	11307)	16.24 %	13.70 %

2.3 TB

The figures that follow reflect the TB burden based on the routine health data collected, collated and reported in health facilities in the uThukela district. The definitions for these indicators can be found in Appendix B: Terms, Definitions and calculations.

Due to the small numbers at a local level, it is not included at ward level in this report. See note on small number in Appendix A: Selecting Data for the Profile.

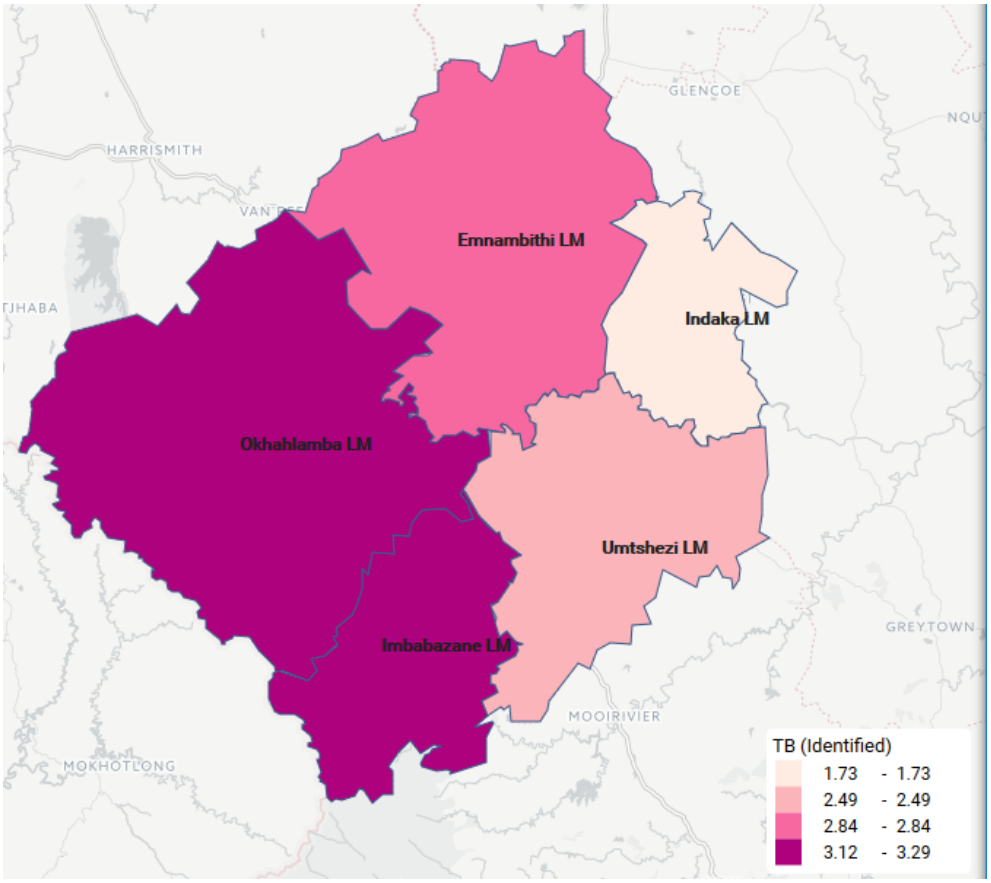

Figure 14: TB (pulmonary) case finding index Uthukela district (Source: KZN DHIS 2015)

Table 11: TB (pulmonary) case finding index Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **2.8 %**									
	local municipality	**2015 : TB (Identified)**					**NUM %**	**DEN %**
1	kz Indaka local municipality	1.73	%	(3422	/	197494)	9.17 %	14.56 %
2	kz Umtshezi local municipality	2.49	%	(4310	/	172829)	11.54 %	12.74 %
3	kz Emnambithi local municipality	2.84	%	(15680	/	551726)	42 %	40.67 %
4	kz Okhahlamba local municipality	3.12	%	(6697	/	214530)	17.94 %	15.82 %
5	kz Imbabazane local municipality	3.29	%	(7228	/	219895)	19.36 %	16.21 %

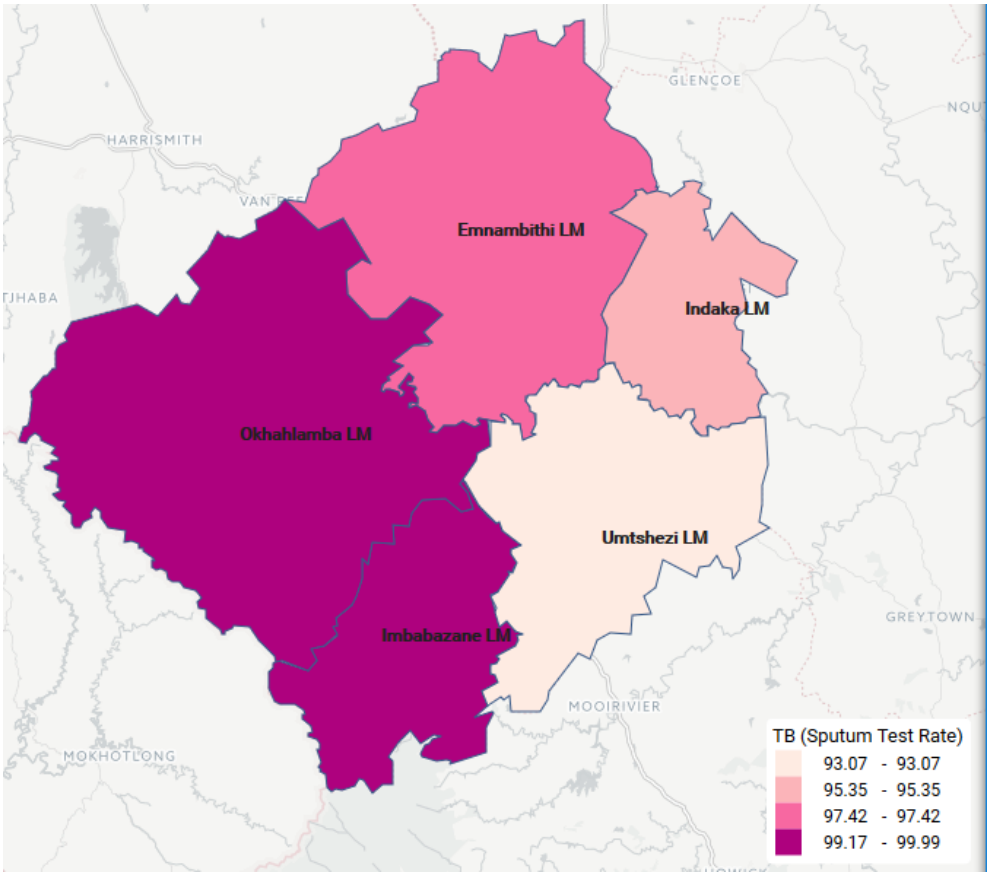

Figure 15: TB suspect sputum test rate Uthukela district (Source: KZN DHIS 2015)

Table 12: TB (Sputum Test Rate) Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **97.5 %**									
	local municipality	**2015 : TB (Sputum Test Rate)**					**NUM %**	**DEN %**
1	kz Umtshezi local municipality	93.07	%	(4310	/	4631)	11.54 %	12.09 %
2	kz Indaka local municipality	95.35	%	(3422	/	3589)	9.17 %	9.37 %
3	kz Emnambithi local municipality	97.42	%	(15680	/	16095)	42 %	42.03 %
4	kz Okhahlamba local municipality	99.17	%	(6697	/	6753)	17.94 %	17.63 %
5	kz Imbabazane local municipality	99.99	%	(7228	/	7229)	19.36 %	18.88 %

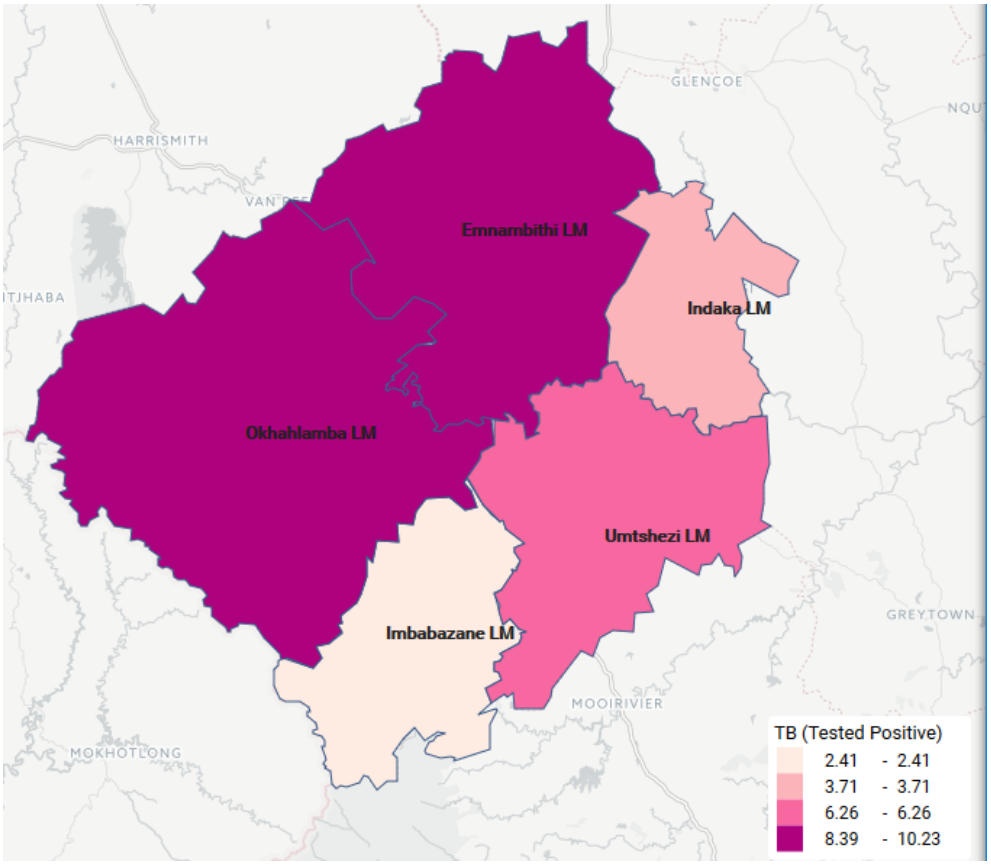

Figure 16: TB suspect smear positive rate Uthukela district (Source: KZN DHIS 2015)

Table 13: TB suspect smear positive rate Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **6.9 %**								
	local municipality	**2015 : TB (Tested Positive)**					**NUM %**	**DEN %**
1	kz Imbabazane local municipality	2.41	%	(174	/	7228)	6.77 %	19.36 %
2	kz Indaka local municipality	3.71	%	(127	/	3422)	4.94 %	9.17 %
3	kz Umtshezi local municipality	6.26	%	(270	/	4310)	10.50 %	11.54 %
4	kz Emnambithi local municipality	8.39	%	(1316	/	15680)	51.17 %	42 %
5	kz Okhahlamba local municipality	10.23	%	(685	/	6697)	26.63 %	17.94 %

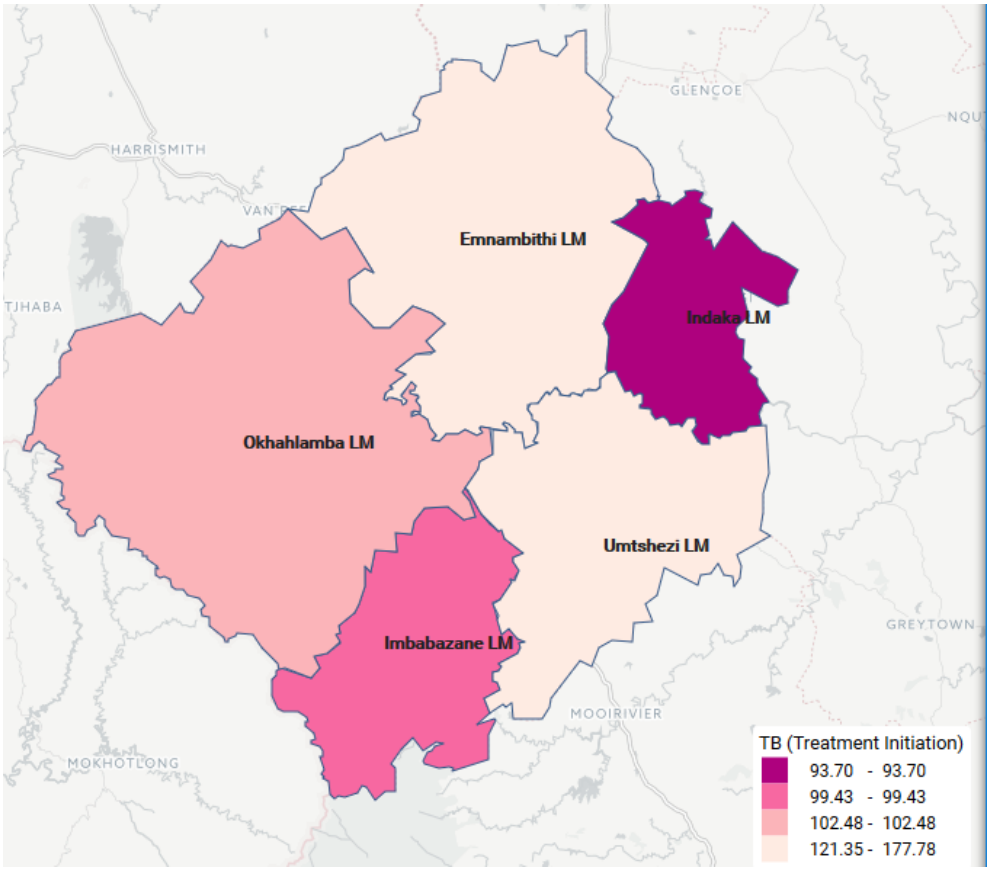

Figure 17: TB suspect treatment initiation rate Uthukela district (Source: KZN DHIS 2015)

Table 14: TB suspect treatment initiation rate Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **119.4 %**								
	local municipality	**2015 : TB (Treatment Initiation)**					**NUM %**	**DEN %**
1	kz Indaka local municipality	93.70	%	(119	/	127)	3.87 %	4.94 %
2	kz Imbabazane local municipality	99.43	%	(173	/	174)	5.63 %	6.77 %
3	kz Okhahlamba local municipality	102.48	%	(702	/	685)	22.86 %	26.63 %
4	kz Emnambithi local municipality	121.35	%	(1597	/	1316)	52 %	51.17 %
5	kz Umtshezi local municipality	177.78	%	(480	/	270)	15.63 %	10.50 %

2.4 STIs

Sexually transmitted infections (STIs) are a major risk factor to the human immunodeficiency virus (HIV) epidemic[1]. The presence of a sexually transmitted infection, such as syphilis, gonorrhoea, or herpes simplex virus infection, greatly increases the risk of acquiring or transmitting HIV infection (by two to three times, in some populations). The HIV-1 infected persons with STIs are at increased risk of transmitting HIV-1 because genital tract shedding of HIV-1 is elevated in the presence of genital tract inflammation[23]. v. In 2014, HIV co-infection amongst STI patients remained relatively high with a HIV co-infection of 30.1% [45] among those with male urethritis syndrome, 40.3% among those with vaginal discharge syndrome and 46.3% among those with genital ulcer syndrome[6] Location is also a factor. Ramjee et.al confirms the high prevalence and incidence of STIs among women living in rural and urban communities of KwaZulu-Natal. Therefore, STI control programmes need to be embedded in HIV care and treatment programmes and vice-versa in order to achieve optimal benefit in ameliorating the impact of HIV, AIDS and STIs.

The figure below reflects the STI burden based on the routine health data collected, collated and reported in health facilities in the uThukela district. At this point the most robust data is for Male urethritis syndrome rate. As the data quality for other STI routine health indicators improve, it will be included in updated profiles. The definitions for this indicator can be found in Appendix B: Terms, Definitions and calculations. Due to the small numbers at a local level, it is not included at ward level in this report. See note on small number in Appendix A: Selecting Data for the Profile.

[1] Naidoo, S., Wand, H., & Ramjee, G. (2014). High prevalence and incidence of sexually transmitted infections among women living in Kwazulu-Natal, South Africa. *AIDS Research and Therapy*, 11–31. http://doi.org/10.1186/1742-6405-11-31

[2] Cohen, M., Hoffman, I., Royce, R., Kazembe, P., Dyer, J., & Daly, C. (1997). Reduction of concentration of HIV-1 in semen after treatment of urethritis: implications for prevention of sexual transmission of HIV-1. AIDSCAP Malawi Research Group. *Lancet*, *349*(9096), 1868–73.

[3] Johnson, L., & Lewis, D. (2008). The effect of genital tract infections on HIV-1 shedding in the genital tract: a systematic review and meta-analysis. *Sex Transm Dis*, *35*(11), 946–59.

[4] Cohen, M., Hoffman, I., Royce, R., Kazembe, P., Dyer, J., & Daly, C. (1997). Reduction of concentration of HIV-1 in semen after treatment of urethritis: implications for prevention of sexual transmission of HIV-1. AIDSCAP Malawi Research Group. *Lancet*, *349*(9096), 1868–73.

[5] Johnson, L., & Lewis, D. (2008). The effect of genital tract infections on HIV-1 shedding in the genital tract: a systematic review and meta-analysis. *Sex Transm Dis*, *35*(11), 946–59.

[6] Naidoo, S., Wand, H., & Ramjee, G. (2014). High prevalence and incidence of sexually transmitted infections among women living in Kwazulu-Natal, South Africa. *AIDS Research and Therapy*, 11–31. http://doi.org/10.1186/1742-6405-11-31

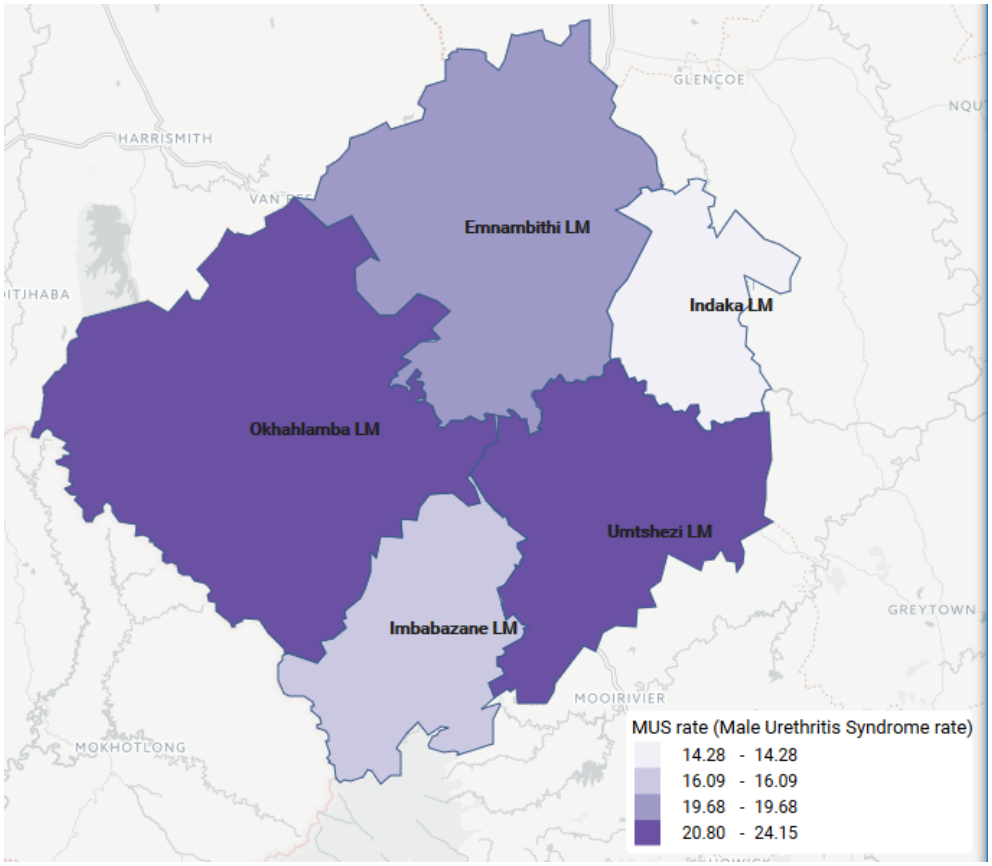

Figure 18: Male urethritis syndrome rate Uthukela district (Source: KZN DHIS 2015)

Table 15: Male urethritis syndrome rate Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **19.4 %**								
	local municipality	**2015 : MUS rate (Male Urethritis Syndrome rate)**					**NUM %**	**DEN %**
1	kz Indaka local municipality	14.28	%	(411	/	2879)	8.92 %	12.10 %
2	kz Imbabazane local municipality	16.09	%	(439	/	2729)	9.52 %	11.47 %
3	kz Emnambithi local municipality	19.68	%	(2269	/	11530)	49.23 %	48.46 %
4	kz Umtshezi local municipality	20.80	%	(726	/	3490)	15.75 %	14.67 %
5	kz Okhahlamba local municipality	24.15	%	(764	/	3163)	16.58 %	13.29 %

3. Associated risk profile

3.1 Biomedical Profile

3.1.1 HIV Testing

Awareness of one's HIV status through HIV Testing Services (HTS) is pivotal to accessing prevention, care services, and ARV treatment which mitigate the impact of HIV [7]. It is therefore important to determine the success of routine HIV testing and counselling by the department of health. From the National 2013 HIV testing campaign, nearly two-thirds of respondents (65.5%) indicated that they had tested for HIV with females reporting higher rates of testing (71.5%) than of males (59%)[8]. 78% of adults aged 25–49 years reported testing compared to youth aged 15–24 years (50.6%) and the elderly (aged 50 years and older) (54.8%)[9].

Stakeholder and community engagement workshops revealed the following about ***HIV Testing Services*** in the area:

- HIV testing is readily available in the area;
- Both males and females do test. However, counsellors deter people from wanting test due to poor service;
- People prefer to use the NGO services for testing, instead of going to health facilities; and
- The testing tents that are sometimes erected in shopping centres are readily available. However, people do not feel that it is a secure environment, where one's confidentiality is protected.

3.1.2 Circumcision

Voluntary medical male circumcision (VMMC) is being scaled up in the country because it has been shown to be partially effective in reducing HIV infection among males[10]. Nationally, there are reported about 46.4% circumcisions, with a significant lower percentage of men aged 15–19 years compared to all age groups. High percentage of black Africans (52.4%) reported that they were circumcised compared to the other three race groups[11].

[7] Shisana, O., T. Rehle, et al. (2014). South African National HIV Prevalence, Incidence and Behaviour Survey,2012. Cape Town, HSRC Press.
[8] ibid
[9] ibid
[10] SANAC. 2011. NSP 2012–2016
[11] Shisana, O., T. Rehle, et al. (2014). South African National HIV Prevalence, Incidence and Behaviour Survey,2012. Cape Town, HSRC Press.

Stakeholder and community engagement workshops revealed the following about ***circumcision*** in the area:

- MMC programmes are going well in the area, however people fail to use condoms once they have been circumcised;
- Messages in the media around circumcision (especially the message that it reduces the chances of infection) must be changed;
- People worry about the possible negative message that circumcision of younger boys may be conveying to them, around their readiness for sexual activity; and
- The sentiment is that the government does not take time to convey the proper knowledge when they implement certain strategies, and that the assumption is that strategies that have been successful in other countries will work in exactly the same win South Africa.

3.1.3 ARV treatment

Stakeholder and community engagement workshops revealed the following about ***ARV treatment*** in the area:

- ARV Treatment is available at Limit Hill Clinic;
- Although information is provided, there is no special care taken to educate disabled people in a way that will help them to adhere to their treatment;
- There have been issues of "stock-outs", however it has lasted up to one week;
- Stigma is another barrier to adherence;
- Patients' confidentiality is not protected and sometimes people who are not qualified to dispense medication (such as security guards), are left to dispense drugs. Home based carers who have been trained and are qualified for the work, are not given employment;
- Staff attitude from some nurses in the clinic makes people not want to return to the clinic;
- There are issues in the area of follow-up because clients give false information, or they move from one place of work or home to another without informing their prior clinic;
- Poverty is a barrier to adherence. Previously, there existed a programme that provided sachets of porridge and that curbed the number of people who default due to hunger;
- Clinics are short staffed and some services are not offered at the weekends which contributes to people being unable to collect their medication;
- Some people do not adhere due to fear of disclosure, as they do not feel supported by their family and friend networks; and
- Alcohol abuse causes people to default on treatment, as they do not think rationally once they are under the influence.

3.1.4 PEP and PrEP

PrEP is not available in the clinics and is only available for sex workers and PEP is available at clinics. PEP is only available to rape victims. Neither PrEP, nor PEP are widely known by the general community.

3.1.5 Lubricant

During the stakeholder and community engagement workshops it was noted that in general the community do not have access and do not know about ***lubricants***. CCGs stated that lubricants are available in health facilities.

3.2 Behaviour that can influence risk for HIV infection

The reported high incidence among young women aged women aged 15–24 years (2.54; 2.04–3.04) approximately 116 000 new infections compared to young men (0.55; 0.45–0.65) approximately 26 000 new infections[12] calls for need to address the associated social factors such as age-disparate relationships, particularly at a much local level. However, data on factors influencing risk of HIV infection e.g. condom use, multiple sexual partnerships, intergenerational sex, transactional sex, risky sexual practices (anal sex) are not routinely collected. Such data are mostly obtained from independent behavioural surveys[13], and are reported at provincial level which is much higher that district, Local Municipalities, and high burden areas. There is need for the department of health to devise approaches to routinely collect quantitative data on sexual risk behaviours in identified local levels and/or high burden areas.

3.2.1 HIV Knowledge

The following was discussed around ***HIV knowledge*** during the stakeholder and community engagement workshops in the area:

- The health caregivers felt they have educated the community members and they continue to educate them about HIV, AIDS and other related infections but feel that the community members choose to ignore the information that is provided to them;
- The issue of sharing of instruments like razor blades between clients by the traditional healers contribute on a high rate of new HIV infections amongst their clients;
- There is a tendency where patients request a relative to go to the clinic to do blood tests on their behalf and they take the results to their boyfriends for assurance that indeed there are negative in order to get married;
- Caregivers, who take care of the sick AIDS patients, are exposed to infection without knowing how to take the necessary precautions;
- There is still unprotected sex happening in the communities (sex without a condom);
- The elderly do not have enough knowledge when it comes to HIV and AIDS. Especially when it comes to how to protect themselves, when they are caring for others; and
- There is a lack of clinics in rural communities, with mobile clinics only coming once a month. This means that they have a large workload and the staff do not have time to promote awareness or educate the community during that time.

[12] Shisana, O., T. Rehle, et al. (2014). South African National HIV Prevalence, Incidence and Behaviour Survey,2012. Cape Town, HSRC Press.
[13] ibid

3.2.2 Sexual risky behaviours

The following was discussed around ***risky sexual behaviour*** during the stakeholder and community engagement workshops in the area:

- Unprotected sex as revenge leads to a high number of infections; and
- Promiscuity fuels infection.

3.2.3 Substance abuse

The following was discussed about ***substance abuse*** during the stakeholder and community engagement workshops in the area:

- Due to unemployment people are hopeless and bored. As a result, they end up indulging in alcohol and when they are intoxicated they make bad decisions such as having sex without condoms and with different partners;
- Alcohol abuse results in taking poor decisions; and
- Intravenous drug use is steadily on the rise, and is seen as a contributor to the spread of HIV, especially among the homeless.

3.2.4 Condoms

In Figure 19 and Figure 20 the condom distribution for females and males (annualised) are reflected at local municipality level in uThukela district. The definitions for these indicators can be found in Appendix B: Terms, Definitions and calculations. Due to the small numbers at a local level, it is not included at ward level in this report. See note on small number in Appendix A: Selecting Data for the Profile.

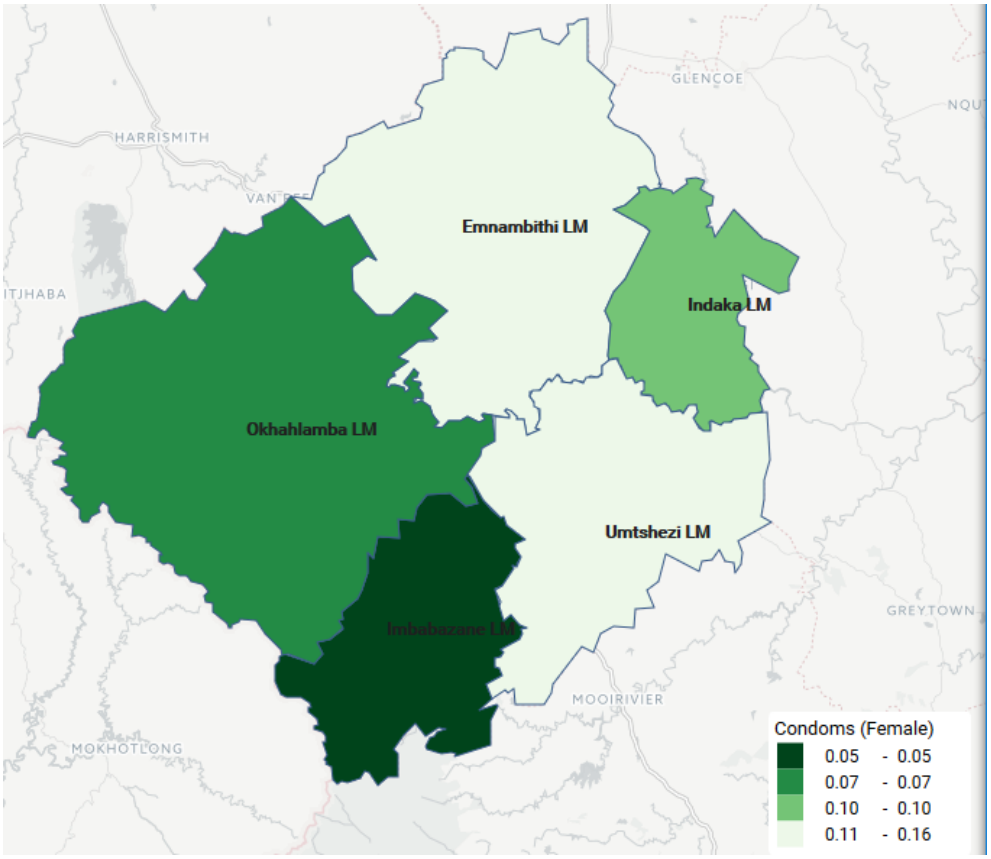

Figure 19: Female condom distribution rate Uthukela district (Source: KZN DHIS 2015)

Table 16: Female condom distribution rate Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **9.9 No**								
	local municipality	**2015 : Condoms (Female)**					**NUM %**	**DEN %**
1	kz Imbabazane local municipality	0.05	No	(26112	/	510084)	8.59 %	16.63 %
2	kz Okhahlamba local municipality	0.07	No	(43335	/	584640)	14.25 %	19.07 %
3	kz Indaka local municipality	0.10	No	(43568	/	452340)	14.33 %	14.75 %
4	kz Emnambithi local municipality	0.11	No	(128121	/	1126548)	42.14 %	36.74 %
5	kz Umtshezi local municipality	0.16	No	(62890	/	392856)	20.69 %	12.81 %

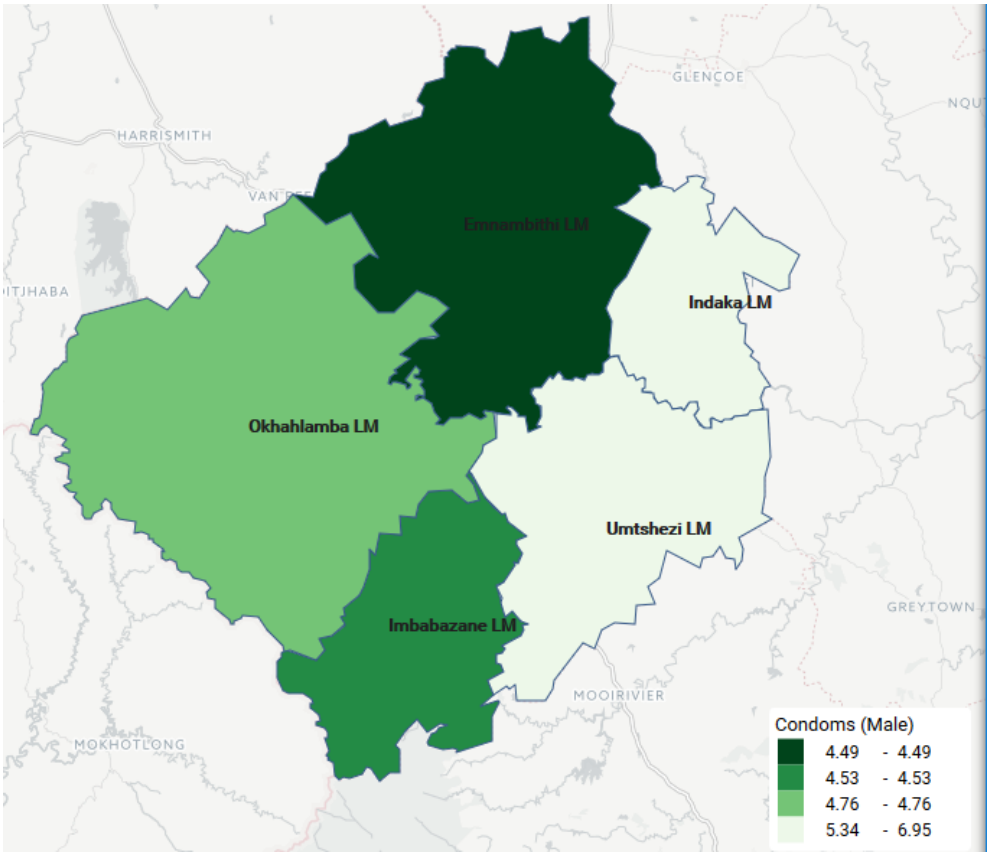

Figure 20: Male condom distribution (Source: KZN DHIS 2015)

Table 17: Male condom distribution rate Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **497.6 No**									
	local municipality	**2015 : Condoms (Male)**						**NUM %**	**DEN %**
1	kz Emnambithi local municipality	4.49	No	(4168640	/	928872)		34.94 %	38.74 %
2	kz Imbabazane local municipality	4.53	No	(1817152	/	401328)		15.23 %	16.74 %
3	kz Okhahlamba local municipality	4.76	No	(2147988	/	450840)		18 %	18.80 %
4	kz Indaka local municipality	5.34	No	(1616796	/	303000)		13.55 %	12.64 %
5	kz Umtshezi local municipality	6.95	No	(2180916	/	313908)		18.28 %	13.09 %

Stakeholder and community engagement workshops revealed the following about ***condoms use and availability*** in the area:

- Both male and female condoms are available in the area;
- Female condoms are not as widely known, or used. They are perceived to be “non-user-friendly” by women;
- Women also fear being viewed in a negative light by men, if they are found to be taking pre-emptive steps in relation to sex;
- At times it is not just men, but also women who act as a barrier when it comes to condom use;

- Women sometimes complain that the feeling is not the same, or that their partner does not trust them, if a man proposes condom use.

3.2.5 Key and vulnerable populations

Figure 21 is a reflection of under 18-year-old girls that deliver in facilities. This is a proxy for teenage pregnancies in the community. The indicator definition is included in Appendix B: Terms, Definitions and calculations.

Due to the small numbers at a local level, it is not included at ward level in this report. See note on small number in Appendix A: Selecting Data for the Profile.

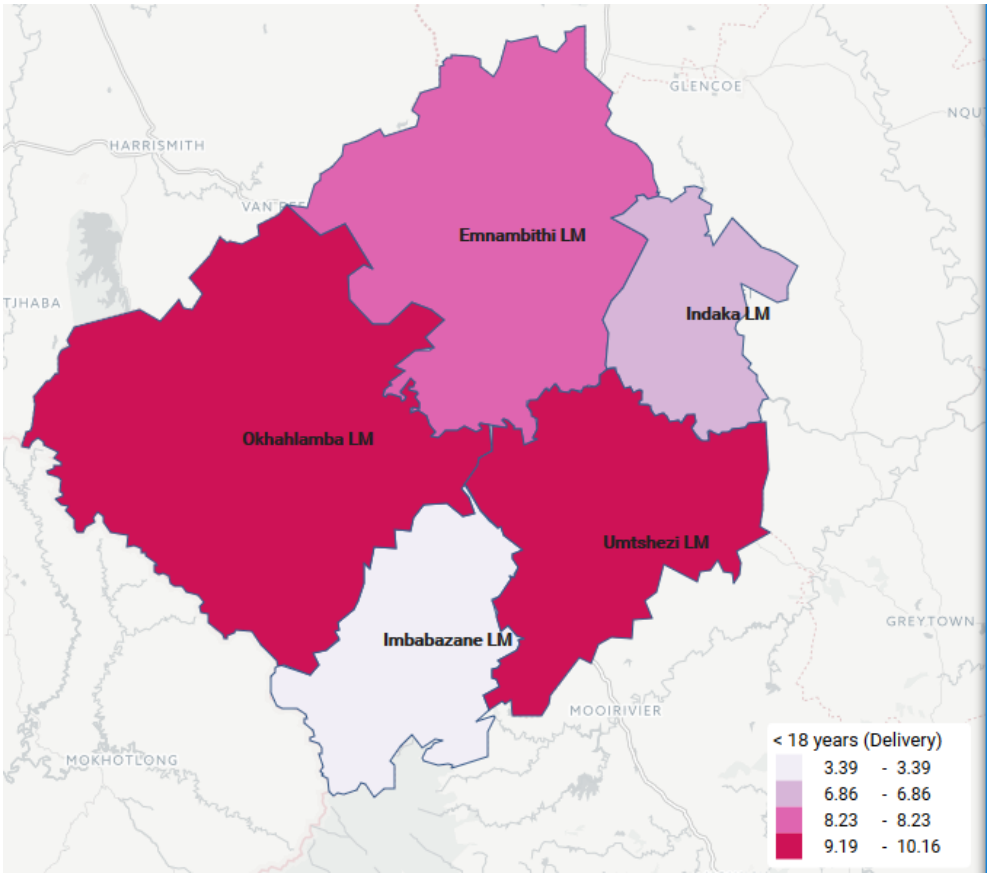

Figure 21: Teenage Pregnancy rate Uthukela district (Source: KZN DHIS 2015)

Table 18: Teenage Pregnancy rate Uthukela district (Source: KZN DHIS 2015 report 1 August 2017)

KZ UTHUKELA DISTRICT MUNICIPALITY: **8.6 %**									
	local municipality	**2015 : < 18 years (Delivery)**					**NUM %**	**DEN %**
1	kz Imbabazane local municipality	3.39	%	(26	/	768)	2.49 %	6.29 %
2	kz Indaka local municipality	6.86	%	(7	/	102)	0.67 %	0.84 %
3	kz Emnambithi local municipality	8.23	%	(508	/	6173)	48.66 %	50.57 %
4	kz Okhahlamba local municipality	9.19	%	(205	/	2231)	19.64 %	18.28 %
5	kz Umtshezi local municipality	10.16	%	(298	/	2933)	28.54 %	24.03 %

Table 19 reflects different discussions during the community engagement that relates to key and vulnerable populations specifically.

Table 19: Key and vulnerable population groups

Key and vulnerable population group	Stakeholder and community feedback
Young women	Young women are usually involved in relationship with older males as they are able to provide them with their needs and they are also involved with boys at their age group. Young women agree to unprotected sex because they think it will help them to keep their partners from leaving them.
Youth	Young people are easily enticed by material goods, such as expensive cars, gadgets and clothes. As a result, both young men and women are susceptible to temptation by the things "blessers" can offer them. This leaves them open to having unprotected sex as a result of the "blesser" being in a position of financial power Young people "drop out" of school at an early age and get exposed to early sexual experiences. Lack of education and recreational facilities drives youth to start having sex early.
Sex workers	Although people do know about their existence, they do not function openly, therefore it is difficult to determine how their actions affect the rate of infection in this specific area.
Orphans and vulnerable children	Due to lack of adult supervision, orphans can be taken advantage of or deceived. They can then end up being used for sex, in the hope of getting money in return, to be able to provide for themselves. This is mainly in child headed households.
Drug users	People share one needle, transfusing blood from one to another in order to feel the effects of a drug, without having to spend more money on it. Although it is not rife in the area, it is steadily increasing (especially among the homeless), and it is another way that HIV infection can spread
Disabled	Disable people are sexually abused because of their disability they have difficulty reporting their experiences. People with disabilities are continuously raped especially the females. Men take advantage of disabled women especially women with intellectual disabilities, as they are unable to report.
Truck drivers	They are possible contributors, due to them offering lifts to women along the roads. The assumption is that if a woman cannot afford a taxi or bus, they will have to offer a truck driver sex, in exchange for transportation, which can contribute to the spread of HIV.
Students	There are 3 TVET colleges in and around the area. Students from all over the country come to study during the school year, and leave at holidays. Some of these students enter into relationships for monetary gain, with people from the local community. When they leave, they return to their partners at home. If they have been engaging in unsafe sex, they can increase the rate of infection both in the area and their places of origin.

3.3 Social and structural factors that influence HIV risk

3.3.1 Orphan hood

In 2011, the proportion of orphans was especially high in the rural Wards. High level of HIV prevalence in KwaZulu-Natal has been associated with high proportion of orphans[14] , albeit at provincial level. The detail for Ward 22 that forms the catchment area for Limit Hill Clinic, is highlighted in the table below.

Table 20: Orphan hood for Census 2011 at Ward level in Alfred Duma local municipality

Ward	Maternal orphans			Paternal orphans			Double orphans		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Emnambithi/Ladysmith									
Ward 001	111	96	207	272	266	538	113	130	243
Ward 002	55	69	123	223	177	400	58	64	122
Ward 003	101	96	197	403	346	750	117	138	255
Ward 004	62	50	112	178	145	323	93	72	165
Ward 005	90	107	198	292	281	573	134	116	251
Ward 006	65	76	142	298	302	600	90	103	194
Ward 007	98	123	221	311	325	636	95	98	193
Ward 008	75	66	141	213	196	409	79	88	167
Ward 009	75	70	145	336	344	680	132	149	281
Ward 010	37	39	76	108	142	249	41	67	107
Ward 011	16	17	34	57	69	127	20	15	36
Ward 012	17	15	33	32	39	70	9	13	23
Ward 013	142	155	297	449	435	883	168	205	373
Ward 014	111	115	227	426	438	865	205	163	368
Ward 015	70	89	159	286	307	593	128	112	240
Ward 016	82	69	151	240	212	452	122	147	269
Ward 017	116	93	208	291	266	557	107	118	225
Ward 018	95	91	186	263	288	552	103	113	216
Ward 019	82	90	172	260	237	498	77	96	173
Ward 020	92	69	161	274	271	545	75	81	156
Ward 021	75	67	142	238	269	507	105	108	213
Ward 022	28	52	81	139	189	328	26	47	73
Ward 023	100	83	184	267	267	534	95	127	222
Ward 024	97	77	175	272	261	533	109	98	207
Ward 025	60	75	136	300	263	563	56	80	136
Ward 026	37	39	76	144	137	281	66	41	108
Ward 027	149	146	295	545	512	1 057	175	146	320
Indaka									
Ward 001	129	100	229	427	394	821	228	228	457

[14] Shisana, O., T. Rehle, et al. (2014). South African National HIV Prevalence, Incidence and Behaviour Survey,2012. Cape Town, HSRC Press.

Ward	Maternal orphans			Paternal orphans			Double orphans		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Ward 002	154	118	272	495	503	998	187	149	337
Ward 003	118	112	230	361	355	716	174	154	328
Ward 004	145	131	277	446	413	860	165	175	339
Ward 005	73	103	176	306	271	577	126	147	274
Ward 006	82	90	172	461	439	900	182	172	354
Ward 007	105	80	185	514	490	1 005	121	107	228
Ward 008	89	90	179	487	484	970	98	111	209
Ward 009	98	102	200	440	417	857	98	101	199
Ward 010	84	112	196	384	402	786	117	101	218

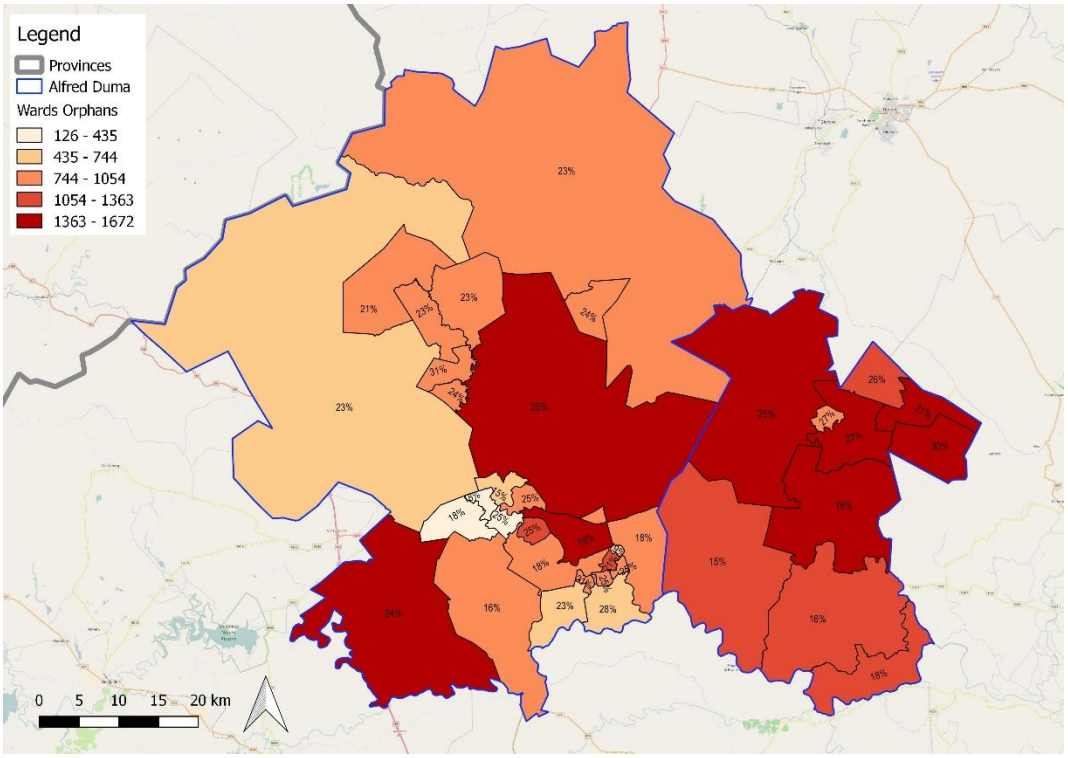

Figure 22: Total number of Orphans with percentage that are double orphans per ward (Source Census 2011)

The following were identified as associated risks for ***Orphans and vulnerable children***:

- Sexual abuse of vulnerable groups such as orphans is a real occurrence in this area;
- Child headed household suffer because a child who is heading a household is sometimes forced to have sex with an older person in order to get food; and
- There is great exploitation of situation where the man who has money will provide help to orphans in exchange of sex for example buying food and school clothes and other necessities.

3.3.2 Cultural and Religious Norms

Stakeholder and community engagement workshops revealed the following about ***cultural and religious norm***s:

- The practice of “isiThembu” or polygamy is culturally acceptable in this area. As a result, if one member of the marriage group is infected, it can lead to infection spreading within the family unit;
- In the deep rural areas, there is an unwillingness by community member to take on new knowledge;
- Sharing of razor blades and porcupine quills during ritual scarring ceremonies can be a contributor;
- Some people believe that sleeping with a virgin cures one of the virus; and
- In some communities, men are allowed to sleep with the wives of their brothers;

3.3.3 Gender norms and gender-based violence

Stakeholder and community engagement workshops revealed the following about ***gender norms and gender-based violence*** in the area:

- A male driven and dominated community is such that men can prevent women from acquiring more knowledge if they are opposed to it;
- A patriarchal society makes it so that women are still vulnerable to abuse from their partners, as women are expected to defer to the will of the men; and
- Women can be discriminated against by both religious and cultural leaders.

3.3.4 Stigma

Stakeholder and community engagement workshops revealed the following about ***stigma*** and how this affects HIV in the area:

- Due to the fear of being seen by those who know them, people choose to go to clinics far away from them. This can lead to people defaulting on their treatment; and
- Writing people’s information on the “Road to health” cards, leads to people’s information being exposed.

3.3.5 Poverty

Poverty is measured through the South Africa Multidimensional Poverty Index (SAMPI)[15]. The detail for Ward 22 that forms the catchment area for Limit Hill Clinic, is highlighted in the table below.

Table 21: Poverty measures for Census 2011 at Ward level in Alfred Duma local municipality

	Poverty Headcount (H)	Intensity of Poverty (A)	SAMPI (HxA)
Emnambithi/Ladysmith			
Ward 001	1.2	40.5	0.005
Ward 002	0.76	38.6	0.003
Ward 003	3.3	39.8	0.013
Ward 004	4	38.5	0.015
Ward 005	3.1	39.1	0.012
Ward 006	5.3	43.1	0.023
Ward 007	10.7	42.1	0.045
Ward 008	5.4	42.3	0.023
Ward 009	12.2	41.7	0.051
Ward 010	5.4	41.6	0.022
Ward 011	0.35	39.9	0.001
Ward 012	1.3	44.2	0.006
Ward 013	15.1	42.8	0.065
Ward 014	17.4	43.3	0.075
Ward 015	7.6	40.4	0.031
Ward 016	13.8	41	0.057
Ward 017	21.1	40.8	0.086
Ward 018	11	41.1	0.045
Ward 019	22.9	42.3	0.097
Ward 020	5.7	42.4	0.024
Ward 021	3.6	40	0.014
Ward 022	0.74	41	0.003
Ward 023	14.6	41.2	0.060
Ward 024	23.3	39.1	0.091
Ward 025	5.9	43.2	0.025
Ward 026	16.3	41	0.067
Ward 027	10	43.1	0.043
Emnambithi/Ladysmith	9	41.3	0.037
Indaka			
Ward 002	7.6	41.4	0.031
Ward 003	9.1	42.3	0.038
Ward 004	8.2	42.1	0.035
Ward 005	8.1	39.5	0.032
Ward 006	2.8	40.9	0.011
Ward 007	14.5	40.8	0.059

[15] SAMPI is the product of the headcount (proportion of households defined as multi-dimensionally poor using the poverty cut-off) and intensity of poverty (average proportion of indicators in which poor households are deprived). The SAMPI constitutes weighted education, health, assets, and economic activity (unemployment rates) indicators.

	Poverty Headcount (H)	Intensity of Poverty (A)	SAMPI (HxA)
Ward 008	34.8	42.9	0.149
Ward 009	31.6	44.2	0.140
Ward 010	39.1	43	0.168
Indaka	34.9	43.4	0.151

The Multidimensional Poverty Index for Alfred Duma local municipality changed between 2001 (Figure 23) and 2011 (Figure 24). In 2001 the highest Poverty Index was 16.66 (Mnambithi), and 32.55 (Indaka). This reduced to 16.81 (Indaka), and 9.69 (Mnambithi) in 2011.

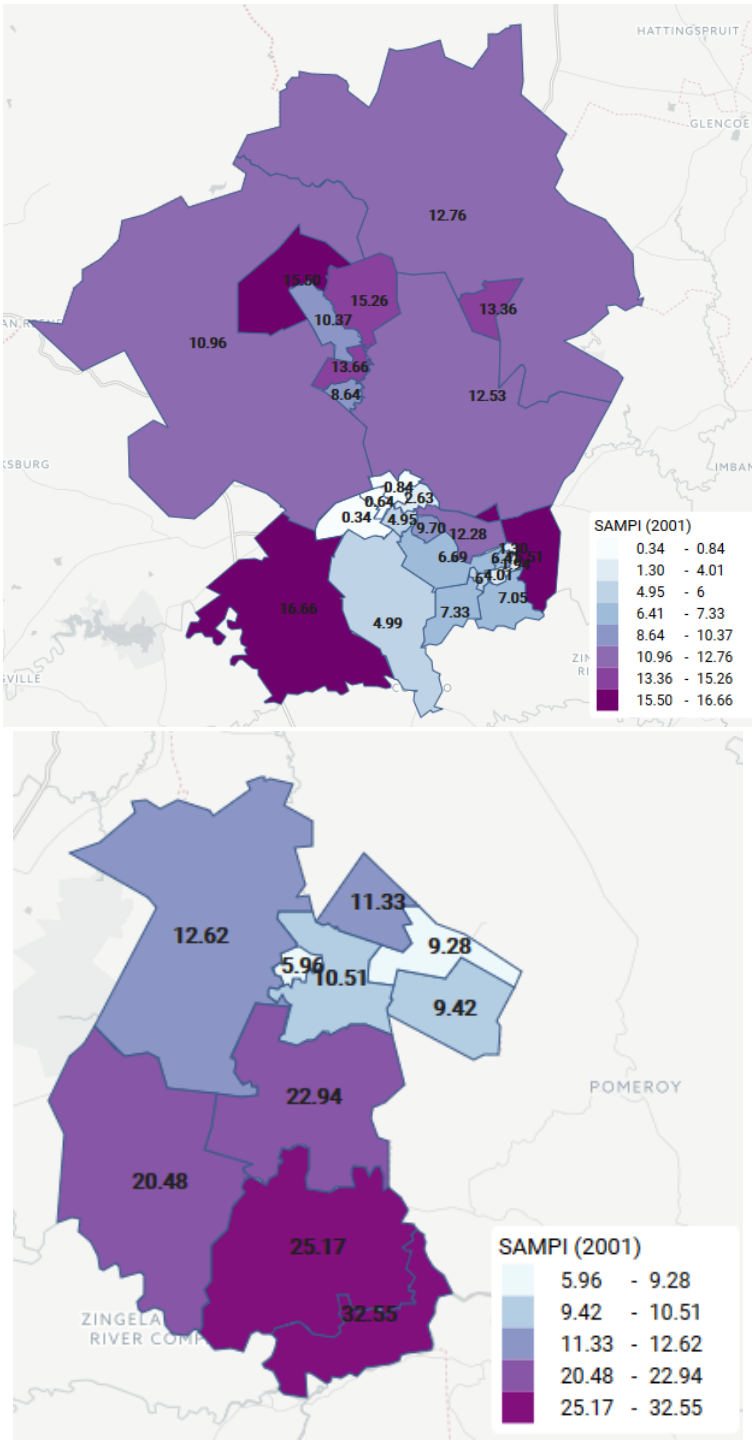

Figure 23: SAMPI (poverty Index) 2001 - ward level, Alfred Duma local municipality

Table 22: SAMPI (poverty Index) 2001 - ward level, Alfred Duma local municipality

KZ EMNAMBITHI LOCAL MUNICIPALITY: 7.3 %						
	Ward (2011)	**SAMPI (2001)**				
1	kz Emnambithi Ward 011	0.34	%	(0.3	/	100)
2	kz Emnambithi Ward 012	0.64	%	(0.6	/	100)
3	kz Emnambithi Ward 022	0.84	%	(0.8	/	100)
4	kz Emnambithi Ward 002	1.30	%	(1.3	/	100)
5	kz Emnambithi Ward 001	1.94	%	(1.9	/	100)

KZ EMNAMBITHI LOCAL MUNICIPALITY: 7.3 %						
	Ward (2011)	**SAMPI (2001)**				
6	kz Emnambithi Ward 021	2.63	%	(2.6	/	100)
7	kz Emnambithi Ward 005	4.01	%	(4	/	100)
8	kz Emnambithi Ward 010	4.95	%	(4.9	/	100)
9	kz Emnambithi Ward 025	4.99	%	(5	/	100)
10	kz Emnambithi Ward 006	6	%	(6	/	100)
11	kz Emnambithi Ward 003	6.41	%	(6.4	/	100)
12	kz Emnambithi Ward 020	6.69	%	(6.7	/	100)
13	kz Emnambithi Ward 004	7.05	%	(7	/	100)
14	kz Emnambithi Ward 008	7.33	%	(7.3	/	100)
15	kz Emnambithi Ward 015	8.64	%	(8.6	/	100)
16	kz Emnambithi Ward 009	9.70	%	(9.7	/	100)
17	kz Emnambithi Ward 018	10.37	%	(10.4	/	100)
18	kz Emnambithi Ward 026	10.96	%	(11	/	100)
19	kz Emnambithi Ward 027	12.28	%	(12.3	/	100)
20	kz Emnambithi Ward 014	12.53	%	(12.5	/	100)
21	kz Emnambithi Ward 024	12.76	%	(12.8	/	100)
22	kz Emnambithi Ward 023	13.36	%	(13.4	/	100)
23	kz Emnambithi Ward 016	13.66	%	(13.7	/	100)
24	kz Emnambithi Ward 017	15.26	%	(15.3	/	100)
25	kz Emnambithi Ward 019	15.50	%	(15.5	/	100)
26	kz Emnambithi Ward 007	15.51	%	(15.5	/	100)
27	kz Emnambithi Ward 013	16.66	%	(16.7	/	100)
KZ INDAKA LOCAL MUNICIPALITY: 12 %						
	Ward (2011)	**SAMPI (2001)**				
1	kz Indaka Ward 005	5.96	%	(6	/	100)
2	kz Indaka Ward 002	9.28	%	(9.3	/	100)
3	kz Indaka Ward 001	9.42	%	(9.4	/	100)
4	kz Indaka Ward 004	10.51	%	(10.5	/	100)
5	kz Indaka Ward 003	11.33	%	(11.3	/	100)
6	kz Indaka Ward 006	12.62	%	(12.6	/	100)
7	kz Indaka Ward 008	20.48	%	(20.5	/	100)
8	kz Indaka Ward 007	22.94	%	(22.9	/	100)
9	kz Indaka Ward 009	25.17	%	(25.2	/	100)
10	kz Indaka Ward 010	32.55	%	(32.5	/	100)

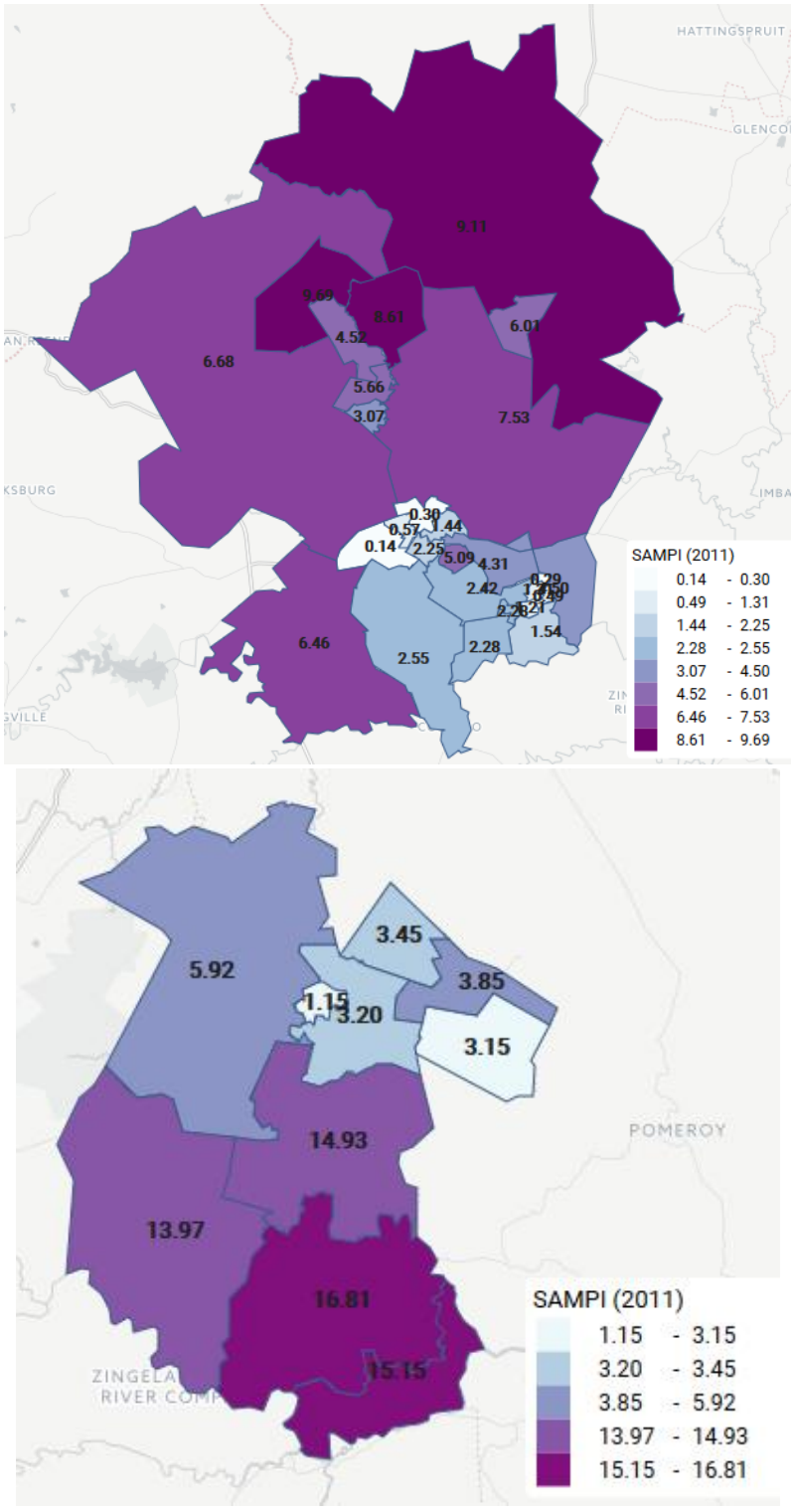

Figure 24: SAMPI (poverty Index) 2011 - ward level, Alfred Duma local municipality

Table 23: SAMPI (poverty Index) 2011 - ward level, Alfred Duma local municipality

KZ EMNAMBITHI LOCAL MUNICIPALITY: 2.5 %						
	Ward (2011)	**SAMPI (2011)**				
1	kz Emnambithi Ward 011	0.14	%	(0.1	/	100)
2	kz Emnambithi Ward 002	0.29	%	(0.3	/	100)
3	kz Emnambithi Ward 022	0.30	%	(0.3	/	100)
4	kz Emnambithi Ward 001	0.49	%	(0.5	/	100)
5	kz Emnambithi Ward 012	0.57	%	(0.6	/	100)
6	kz Emnambithi Ward 005	1.21	%	(1.2	/	100)
7	kz Emnambithi Ward 003	1.31	%	(1.3	/	100)
8	kz Emnambithi Ward 021	1.44	%	(1.4	/	100)
9	kz Emnambithi Ward 004	1.54	%	(1.5	/	100)
10	kz Emnambithi Ward 010	2.25	%	(2.2	/	100)
11	kz Emnambithi Ward 006	2.28	%	(2.3	/	100)
12	kz Emnambithi Ward 008	2.28	%	(2.3	/	100)
13	kz Emnambithi Ward 020	2.42	%	(2.4	/	100)
14	kz Emnambithi Ward 025	2.55	%	(2.5	/	100)
15	kz Emnambithi Ward 015	3.07	%	(3.1	/	100)
16	kz Emnambithi Ward 027	4.31	%	(4.3	/	100)
17	kz Emnambithi Ward 007	4.50	%	(4.5	/	100)
18	kz Emnambithi Ward 018	4.52	%	(4.5	/	100)
19	kz Emnambithi Ward 009	5.09	%	(5.1	/	100)
20	kz Emnambithi Ward 016	5.66	%	(5.7	/	100)
21	kz Emnambithi Ward 023	6.01	%	(6	/	100)
22	kz Emnambithi Ward 013	6.46	%	(6.5	/	100)
23	kz Emnambithi Ward 026	6.68	%	(6.7	/	100)
24	kz Emnambithi Ward 014	7.53	%	(7.5	/	100)
25	kz Emnambithi Ward 017	8.61	%	(8.6	/	100)
26	kz Emnambithi Ward 024	9.11	%	(9.1	/	100)
27	kz Emnambithi Ward 019	9.69	%	(9.7	/	100)
KZ INDAKA LOCAL MUNICIPALITY: **4.9 %**						
	Ward (2011)	**SAMPI (2011)**				
1	kz Indaka Ward 005	1.15	%	(1.1	/	100)
2	kz Indaka Ward 001	3.15	%	(3.1	/	100)
3	kz Indaka Ward 004	3.20	%	(3.2	/	100)
4	kz Indaka Ward 003	3.45	%	(3.5	/	100)
5	kz Indaka Ward 002	3.85	%	(3.8	/	100)
6	kz Indaka Ward 006	5.92	%	(5.9	/	100)
7	kz Indaka Ward 008	13.97	%	(14	/	100)
8	kz Indaka Ward 007	14.93	%	(14.9	/	100)
9	kz Indaka Ward 010	15.15	%	(15.1	/	100)
10	kz Indaka Ward 009	16.81	%	(16.8	/	100)

It is important to note that changes between the 2001 (Figure 25) and 2011 (Figure 26) for SAMPI at ward level. In 2001 the highest headcount amongst the wards in Alfred Duma local municipality was 38.20 (Mnambithi), and 70.3 (Indaka) , against 23.3 (Mnambithi), and 39,1 (Indaka) in 2011.

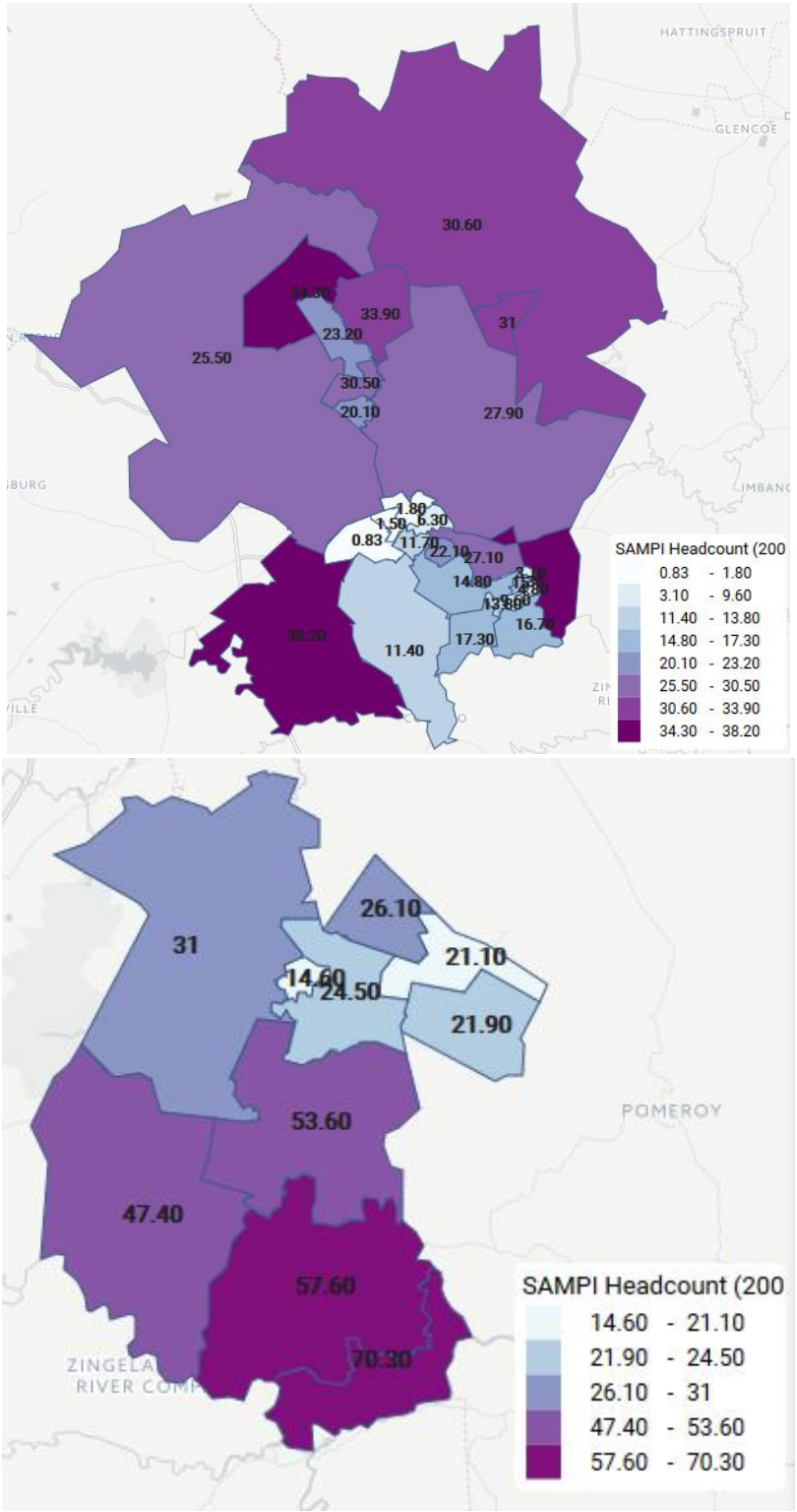

Figure 25: SAMPI 2001 poverty headcount - ward level, Alfred Duma local municipality

Table 24: SAMPI 2001 poverty headcount - ward level, Alfred Duma local municipality

KZ EMNAMBITHI LOCAL MUNICIPALITY: 17.3 %						
	Ward (2011)	**SAMPI Headcount (2001)**				
1	kz Emnambithi Ward 011	0.83	%	(0.8	/	100)
2	kz Emnambithi Ward 012	1.50	%	(1.5	/	100)
3	kz Emnambithi Ward 022	1.80	%	(1.8	/	100)
4	kz Emnambithi Ward 002	3.10	%	(3.1	/	100)
5	kz Emnambithi Ward 001	4.80	%	(4.8	/	100)
6	kz Emnambithi Ward 021	6.30	%	(6.3	/	100)
7	kz Emnambithi Ward 005	9.60	%	(9.6	/	100)
8	kz Emnambithi Ward 025	11.40	%	(11.4	/	100)
9	kz Emnambithi Ward 010	11.70	%	(11.7	/	100)
10	kz Emnambithi Ward 006	13.80	%	(13.8	/	100)
11	kz Emnambithi Ward 020	14.80	%	(14.8	/	100)
12	kz Emnambithi Ward 003	15	%	(15	/	100)
13	kz Emnambithi Ward 004	16.70	%	(16.7	/	100)
14	kz Emnambithi Ward 008	17.30	%	(17.3	/	100)
15	kz Emnambithi Ward 015	20.10	%	(20.1	/	100)
16	kz Emnambithi Ward 009	22.10	%	(22.1	/	100)
17	kz Emnambithi Ward 018	23.20	%	(23.2	/	100)
18	kz Emnambithi Ward 026	25.50	%	(25.5	/	100)
19	kz Emnambithi Ward 027	27.10	%	(27.1	/	100)
20	kz Emnambithi Ward 014	27.90	%	(27.9	/	100)
21	kz Emnambithi Ward 016	30.50	%	(30.5	/	100)
22	kz Emnambithi Ward 024	30.60	%	(30.6	/	100)
23	kz Emnambithi Ward 023	31	%	(31	/	100)
24	kz Emnambithi Ward 017	33.90	%	(33.9	/	100)
25	kz Emnambithi Ward 019	34.30	%	(34.3	/	100)
26	kz Emnambithi Ward 007	35	%	(35	/	100)
27	kz Emnambithi Ward 013	38.20	%	(38.2	/	100)
KZ INDAKA LOCAL MUNICIPALITY: **28.6 %**						
	Ward (2011)	**SAMPI Headcount (2001)**				
1	kz Indaka Ward 005	14.60	%	(14.6	/	100)
2	kz Indaka Ward 002	21.10	%	(21.1	/	100)
3	kz Indaka Ward 001	21.90	%	(21.9	/	100)
4	kz Indaka Ward 004	24.50	%	(24.5	/	100)
5	kz Indaka Ward 003	26.10	%	(26.1	/	100)
6	kz Indaka Ward 006	31	%	(31	/	100)
7	kz Indaka Ward 008	47.40	%	(47.4	/	100)
8	kz Indaka Ward 007	53.60	%	(53.6	/	100)
9	kz Indaka Ward 009	57.60	%	(57.6	/	100)
10	kz Indaka Ward 010	70.30	%	(70.3	/	100)

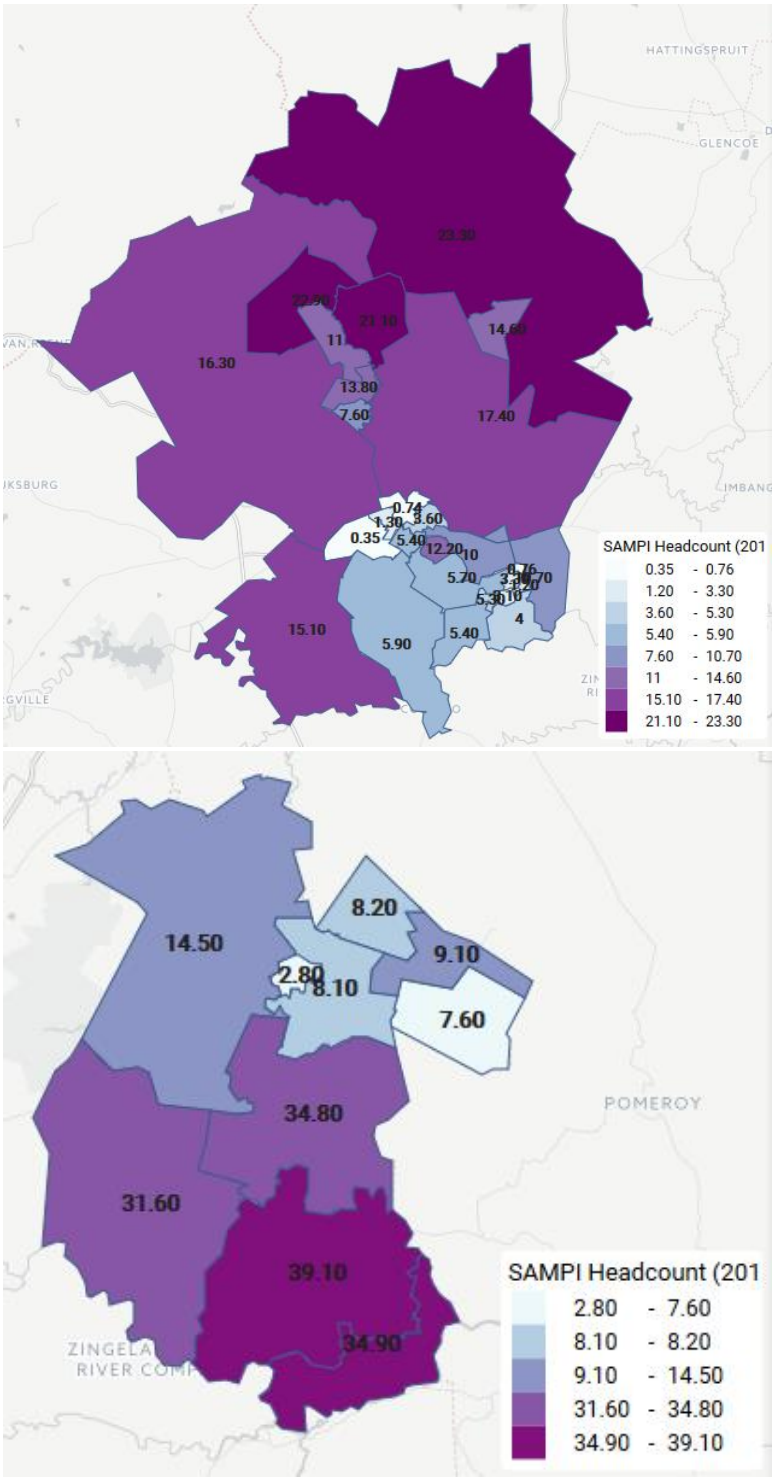

Figure 26: SAMPI 2011 poverty headcount - ward level, Alfred Duma local municipality

Table 25: SAMPI 2011 poverty headcount - ward level, Alfred Duma local municipality

KZ EMNAMBITHI LOCAL MUNICIPALITY: 5.9 %						
	Ward (2011)	**SAMPI Headcount (2011)**				
1	kz Emnambithi Ward 011	0.35	%	(0.3	/	100)
2	kz Emnambithi Ward 022	0.74	%	(0.7	/	100)
3	kz Emnambithi Ward 002	0.76	%	(0.8	/	100)
4	kz Emnambithi Ward 001	1.20	%	(1.2	/	100)
5	kz Emnambithi Ward 012	1.30	%	(1.3	/	100)
6	kz Emnambithi Ward 005	3.10	%	(3.1	/	100)
7	kz Emnambithi Ward 003	3.30	%	(3.3	/	100)
8	kz Emnambithi Ward 021	3.60	%	(3.6	/	100)
9	kz Emnambithi Ward 004	4	%	(4	/	100)
10	kz Emnambithi Ward 006	5.30	%	(5.3	/	100)
11	kz Emnambithi Ward 008	5.40	%	(5.4	/	100)
12	kz Emnambithi Ward 010	5.40	%	(5.4	/	100)
13	kz Emnambithi Ward 020	5.70	%	(5.7	/	100)
14	kz Emnambithi Ward 025	5.90	%	(5.9	/	100)
15	kz Emnambithi Ward 015	7.60	%	(7.6	/	100)
16	kz Emnambithi Ward 027	10	%	(10	/	100)
17	kz Emnambithi Ward 007	10.70	%	(10.7	/	100)
18	kz Emnambithi Ward 018	11	%	(11	/	100)
19	kz Emnambithi Ward 009	12.20	%	(12.2	/	100)
20	kz Emnambithi Ward 016	13.80	%	(13.8	/	100)
21	kz Emnambithi Ward 023	14.60	%	(14.6	/	100)
22	kz Emnambithi Ward 013	15.10	%	(15.1	/	100)
23	kz Emnambithi Ward 026	16.30	%	(16.3	/	100)
24	kz Emnambithi Ward 014	17.40	%	(17.4	/	100)
25	kz Emnambithi Ward 017	21.10	%	(21.1	/	100)
26	kz Emnambithi Ward 019	22.90	%	(22.9	/	100)
27	kz Emnambithi Ward 024	23.30	%	(23.3	/	100)
KZ INDAKA LOCAL MUNICIPALITY: 11.8 %						
	Ward (2011)	**SAMPI Headcount (2011)**				
1	kz Indaka Ward 005	2.80	%	(2.8	/	100)
2	kz Indaka Ward 001	7.60	%	(7.6	/	100)
3	kz Indaka Ward 004	8.10	%	(8.1	/	100)
4	kz Indaka Ward 003	8.20	%	(8.2	/	100)
5	kz Indaka Ward 002	9.10	%	(9.1	/	100)
6	kz Indaka Ward 006	14.50	%	(14.5	/	100)
7	kz Indaka Ward 008	31.60	%	(31.6	/	100)
8	kz Indaka Ward 007	34.80	%	(34.8	/	100)
9	kz Indaka Ward 010	34.90	%	(34.9	/	100)
10	kz Indaka Ward 009	39.10	%	(39.1	/	100)

Stakeholder and community engagement workshops revealed the following about ***poverty*** and how this affects HIV in the area:

- Poverty, and the power imbalance between partners results in having unprotected sex with concurrent sexual partners;
- Due to lack of money and high level of unemployment young women and girls decide to get involved in transactional relationships;
- Older men called blessers provide money and money is misused by young people knowing that the blesser, after another sex encounter, will provide money;
- People are unable to provide for themselves, they can't even afford the basic needs this also results in young woman and girls being involved in transactional sex and relationships such as blessers, sugar daddies and sugar snacks/mammas;
- Health care facilities are too far away and people can't afford to travel to the facilities and so end up not getting proper health care;
- Due to poverty, patients are selling ARVs and not taking them. ARVs are used in exchange for a drug called Wonga;
- Pregnancy rates are high, possibly because young women are using their babies to access grant money; and
- Shopkeepers in rural areas are seen to entice local women with money, and can therefore demand to have sex without a condom.

3.3.6 Employment

In Alfred Duma local municipality, 29% of the female population at economically active age are employed while 35% of the economically active males are employed. See Figure 27 below.

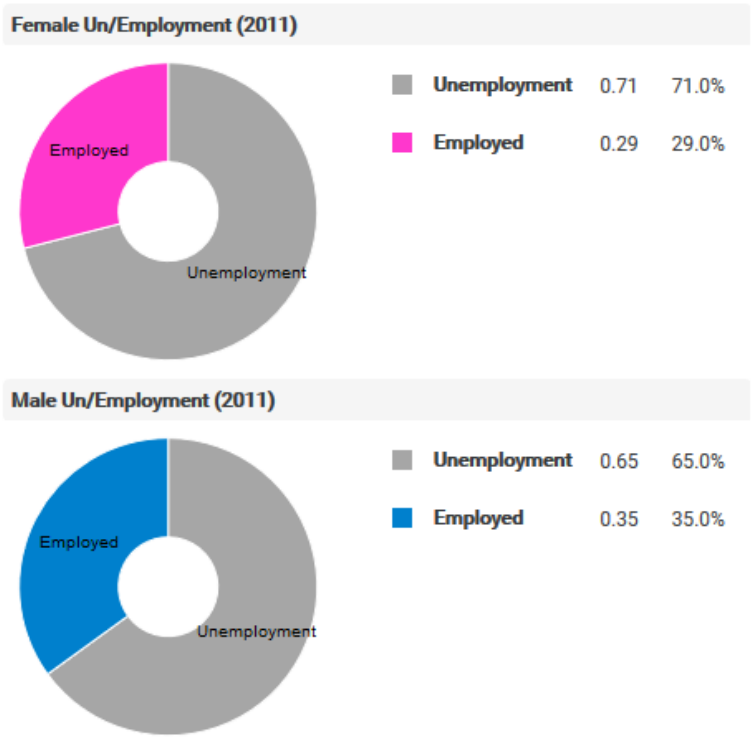

Figure 27: Female and Male employment Alfred Duma local municipality (Source Census 2011)

Unemployment of youth in Alfred Duma local municipality is at 74.7%. Three quarters of the youth in the area were therefore unemployed at the time of the Census.

Figure 28: Youth unemployment Alfred Duma local municipality (source Census 2011)

In comparison with the Alfred Duma local municipality a bigger percentage of females and males are employed from the total population in the Limit Hill clinic catchment area. In this area 59% of the female population and 68% of the male population is employed (see Figure 29)

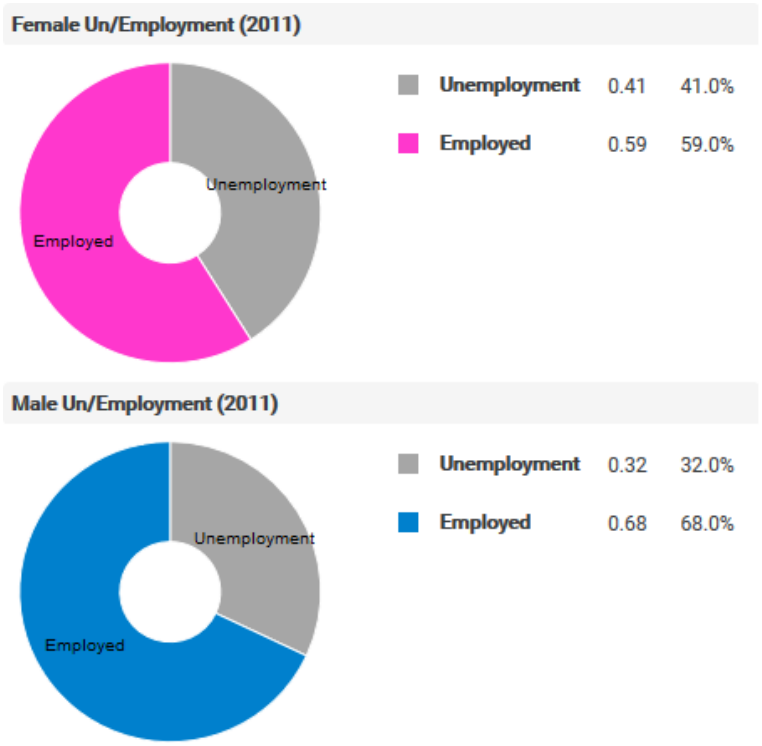

Figure 29: Female and Male Employment Limit Hill clinic catchment area (Source Census 2011)

Fewer youth (51.4%) are unemployed in the Limit Hill clinic catchment area than the Alfred Duma local municipality (74.7%).

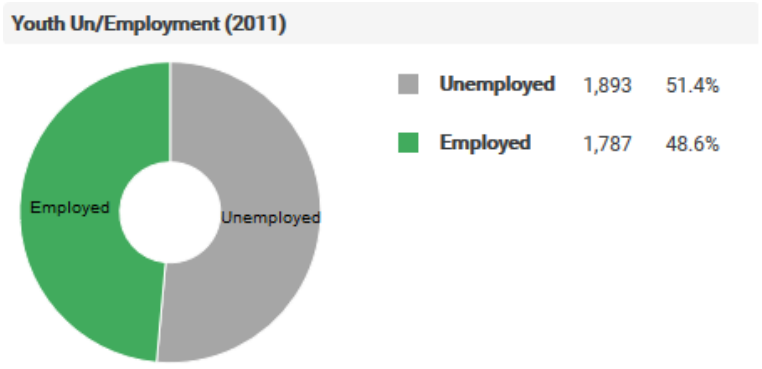

Figure 30: Youth unemployment Limit Hill clinic catchment area (source Census 2011)

During the stakeholder and community engagement workshops the following was said about ***employment*** and how this affects HIV in the area:

- Unemployment contributes to the increase for the risk of HIV infection within the community. One of the reasons for this is that the majority of young people end up being involved in relationship with older man who referred to as (blessers),

- The high level of unemployment has resulted in some women indulging in unsafe sex with the aim to conceive so that they can access child support grants;
- Unemployment within the community is also due to the result of high level of school drop-outs. Boredom while sitting at home leads to people engaging in sexual activity without taking the necessary precautions; and
- Young people are engaged in sex work and are used by outside people who put them at risk of having unprotected sex in exchange for money.

3.3.7 Types of settlements

Stakeholder and community engagement workshops felt that the ***types of settlements*** have the following influences in the area:

- Due to living in informal settlements, children end up seeing their parents having sex and they then practice this with other children who are at their age. This contributes to early sexual debut and possible HIV infection;
- Many of the people who reside within the informal settlement do not have proper documents such as IDs;
- Living in close proximity with one another, while people are unemployed leads to increased sexual activities;
- Informal settlements are seen as a receptacle of unhygienic areas. Items such as used condoms, and at times needles are thrown where children can easily access them. Sharp object such as razors that have been used are also lying around. This increases the risk of HIV infection; and
- Lack of resources make it difficult to educate people about HIV in informal settlements;
- In some informal settlements, the child who lives in the RDP house will invite other girls and boys to have sex in the house.

3.3.8 Migration patterns in the area

The following were identified as implications of ***migration patterns*** in the area on the associated risk of HIV:

- Migration patterns in the area are very high, especially because the area is very close to a national highway;
- The community has to accommodate people from different countries. This contributes to high level of unemployment because it is said that these people accept low rate of income compared to the local people as a result the employers prefer them compared to the local people;
- Some of these migrants end up engaging in a sexual relation for financial reasons;
- Fear of getting to the local clinics by the people from other countries for HIV testing can spread the infection because they end up having sex with local people and don't know their HIV status; and
- Truck drivers are seen also as contributors of HIV transmission, because of casual sexual relationships on their routes with other women and do not use protection. Women who ask for lifts and do not have the money to pay for transportation exchange sex for getting lifts.

3.3.9 Education and literacy

There is very limited opportunity for higher education after school. Young people don't opportunities and so stay in the local area with few life chances.

3.3.10 Hate crimes – xenophobic, homophobic, other

Although it is stated to not be prevalent, there seems to be a higher level of discrimination against lesbians than gay men. Corrective rape exists within the community.

3.3.11 Disability

Participants in stakeholder and community engagement workshops felt that the ***people with disabilities*** have an increased risk of HIV infection because:

- Disabled people are sexually abused because of their disability;
- People with disabilities cannot express their opposition to something or their needs; and
- People with disabilities are continuously raped especially the females. Men take advantage of disabled women especially of those that are mentally disabled, and will not be capable of reporting if and when they are abused.

4. Services in the local municipality

4.1 Health facilities

There are 21 health facilities in Alfred Duma local municipality. See Figure 31 below for distribution of these facilities.

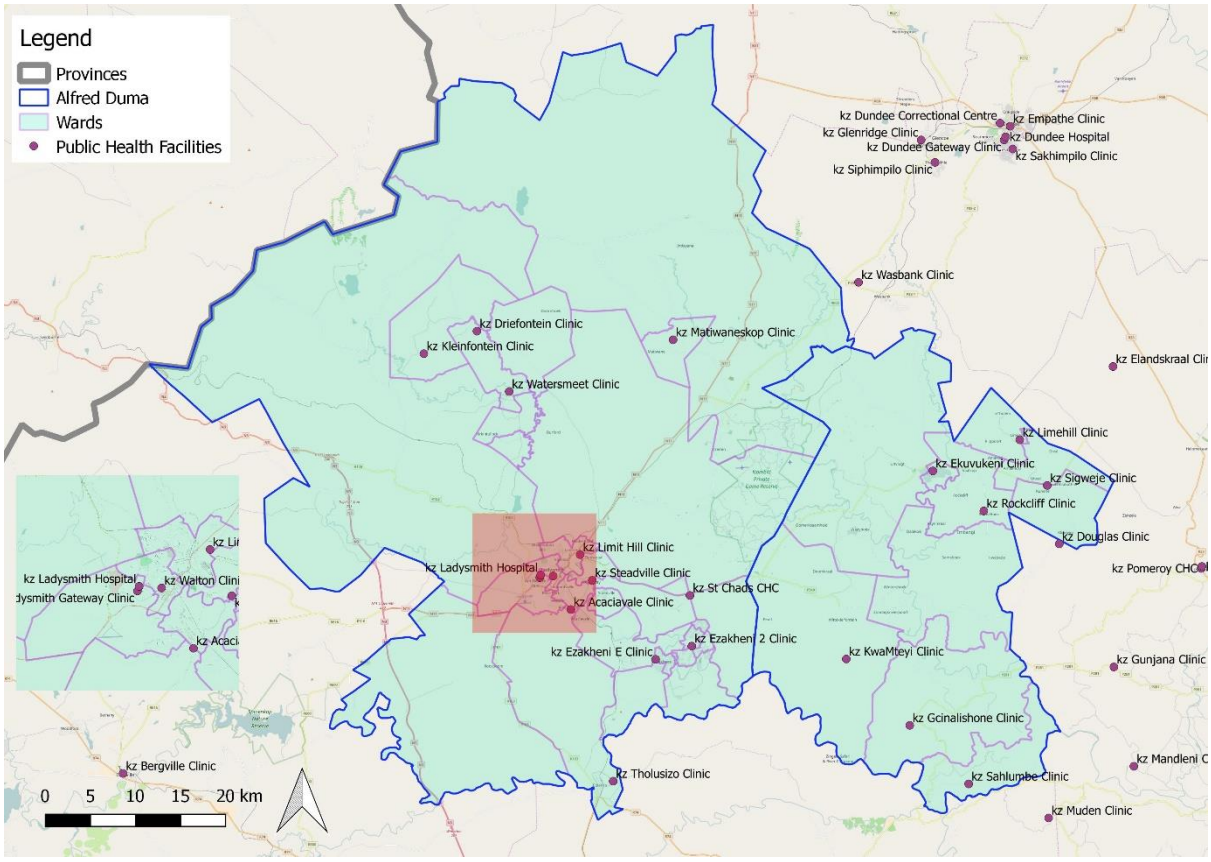

Figure 31: Distribution of health facilities in Alfred Duma local municipality

5. Recommendations for multi-sectoral interventions and focus on key and vulnerable populations

Based on the priorities identified in the profile for high burden areas, a mechanism needs to be put in place to coordinate the multi-sectoral response at the various levels. This is to ensure a comprehensive approach and to build sustainability of the response with local ownership.

Coordination of the multi-sectoral interventions at the level of implementation would result in:

- increased access to available resources;
- more efficient use of resources;
- enhancement of accountability;
- development of innovative implementation strategies and modalities;
- broadened awareness about the priorities highlighted in the risk profile;
- development of new partnerships to render services;
- sustainable development of activities;
- broadened sharing of responsibility for different, yet related activities;
- stronger ownership by stakeholders;
- use of strengths of different partners; and
- sharing of new knowledge and lessons learnt.

Process for development and implementation of multi-sectoral HIV, TB and STI intervention packages through existing multi-sectoral coordination structures e.g. AIDS Councils, OSS war rooms:

1. Update community profiles with directory of existing services e.g. rendered by government, NGO, donor funded organisations. This will be used to determine resources and programmes already available to address the priorities in the community profile as well as resource and programme gaps that exist;
2. Communicate and validate the profiles through meetings with government, private and civil society organisations in the specific geographical area;
3. Present the profile findings and recommendations for multi-sectoral interventions to the multi-sectoral structure for validation of findings, prioritization of programmatic gaps and linkage with existing resources (final decision on resource allocation should be requested through appropriate channels, e.g. government processes, Global Fund etc.);
4. For gaps prioritised, identify possible service providers and interventions that can address the needs following the relevant government or donor processes and procedures (depending on source of funding);
5. Provincial, district and local coordination structures to coordinate an implementation plan with clear activities, timelines and responsible stakeholders that aligns with the profile. This will form the foundation for tracking performance and progress against the implementation plan; and

6. Further and focused engagement to be done with the Young women and girls group identified as the priority population in this area to have a detailed understanding of their specific risks.

Table 26 summarises the key and vulnerable populations as well as priority interventions identified during the development of the community profile. Due to the importance of TB as the main cause of death in the district, it is included in the priority interventions.

Table 26: Key and vulnerable populations as well as priority interventions identified

Key and vulnerable populations for TB	**Priority interventions**
• People living with HIV • Household contacts of TB index patients • Health care workers • Pregnant women • Children < 5 years old • People living in informal settlements	• TB contact tracing, testing and post-exposure management • Enhanced health education about HIV/TB co-infection, reinfection • Service delivery and treatment delivery points in community, non-traditional settings
Key and vulnerable populations for HIV	**Priority interventions**
• Young women and girls • Orphans and vulnerable children • People who use drugs	• Sexual abuse and gender based violence – especially non-reporting of cases • Stigma and discrimination against PLHIV • Correct and consistent condom use • Lack of knowledge about how to prevent HIV infection especially among youth and the elderly • High rate of substance abuse and drugs (increasingly with intravenous drugs) that contributes to high risk behaviour • Increased uptake of testing by men

Considering the priorities identified during the stakeholder and community workshops as well as the general profile, the following service delivery packages are recommended in line with the National Strategic Plan for HIV, TB and STIs (2017 to 2022) and other relevant strategic documents. These service delivery packages need to be unpacked and included in the implementation plan referred to above based on the existing resource envelop in the District and local municipality. Priority is given to the key and vulnerable populations identified, followed by other interventions identified in the NSP.

Table 27: Recommended multi-sectoral intervention packages

Inclusive package of services for all key and vulnerable populations that will be customised to age and population served		**Multi-sectoral partner**

• Service delivery in non-traditional settings, including after-hours and weekend hours
• Health information, customised to client needs
• Sexual and reproductive health services
• HIV screening, testing and treatment
• STI screening, treatment
• TB screening, treatment (including preventive therapy) and contact tracing for DS- and DR-TB
• Mental health screening and psychosocial support
• Access to PEP and post-sexual assault support
• Alcohol and drug use screening and referral to harm reduction services
• Violence screening and referral to psychosocial and other support services
• Condom and lubricant promotion and provision
• Targeted social and behaviour change communication
• Core rights-based programme components:
  ○ Human rights and constitutional protection
  ○ Health empowerment
  ○ Economic empowerment
  ○ Gender norms and equality
  ○ Justice
  ○ Principles of universal design and accommodation that enables reasonable access for persons with disabilities
		• NGOs
		• DoH
		• DSD
		• DBE
		• NPA
		• PCA, DAC, LAC
		• SAPS
		• DOT

HIV and STI vulnerable populations		

Adolescent girls and young women	• Peer-led outreach
	• Youth-friendly sexual and reproductive health services in schools and community settings which include:
	  ○ PrEP (for over 18 years olds)
	  ○ Complete two dose HPV vaccine (Grade 4 learners)
	  ○ PMTCT
	  ○ Choice of termination of pregnancy
	  ○ Family planning services
	  ○ Male and female condom provision in school
	  ○ Sanitary towels
	• Programmes to keep girls in schools, including support for pregnant learners
	• Access to peer groups and clubs
		• DBE
		• DHET
		• DoH
		• DSD
		• NGOs
		• DoL
		• Private sector

Inclusive package of services for all key and vulnerable populations that will be customised to age and population served		Multi-sectoral partner
	• Access to parenting programmes • Economic empowerment programmes • Increased access to further education opportunities • Increased access to mentorship and internships • Comprehensive sexuality and gender education • Provide reasonable accessibility for girls and young women with disabilities • Age-specific support to HIV-positive adolescents (support for disclosure, adherence)	

Children and orphans and vulnerable children	• Health education, with a particular focus on sexual exploitation in the absence of primary caregivers
	• Accelerated nutritional and social grant support
	• Youth-friendly sexual and reproductive health services in schools and community settings which include:
	  ○ HPV vaccination
	  ○ Contraceptives including condoms
	  ○ Choice of termination of pregnancy
	• Comprehensive sexuality education in residential, school and non-school and youth-friendly settings
	• Intensive psychosocial support
	• Gender norms education, including risk reduction in relation to age-disparate relationships
	• School retention
		• DSD
		• DBE
		• DoH

HIV key populations	**Service**	**Multi-sectoral partner**
People who use drugs, including people who inject drugs	• Peer-led outreach • Harm reduction counselling • Linkage to rehabilitation centres • Case management to ensure a continuum of care • Needle and syringe programmes • Opioid Substitution Therapy • Accelerated nutritional and social grant support, if indicated • Hepatitis B screening and immunisation • Hepatitis C screening and treatment when policy is developed	• DoH • NGOs • DSD

Inclusive package of services for all key and vulnerable populations that will be customised to age and population served		Multi-sectoral partner
TB key populations		
Children <5 yrs	• Household TB and HIV screening, immediate linkage to treatment • Improved diagnostic and treatment capacity for paediatric TB • Promote activism for child-friendly TB formulations and introduce as soon as they are available • Improve sputum induction at PHC and hospital level • Screening for and protection from the sexual exploitation of children	• DoH • NGOs • Civil Society • DSD
Healthcare workers	• Implement guidelines for TB in HCWs • Institute regular TB screening and offer HIV testing for all HCWs • Offer TB preventive therapy to all HCWs who are living with HIV • Develop a recording and reporting system for TB and DR-TB in HCWs • Appoint a DoH-led task force to monitor implementation and further elucidate the effort–effect ratio of screening all HCWs annually with symptom screening and CXR, and to investigate the role of preventive therapy for HCWs • Implement the FAST model in facilities (finding cases actively by cough surveillance and rapid molecular sputum testing, separating safely, and treating effectively, based on rapid drug susceptibility testing)	• DoH • DoH
Household contacts of TB index patients	• Implement simplified screening algorithms for TB-exposed children • Implement community education and mobilisation programmes to improve acceptance of contact investigations and to create awareness of the benefits of preventive therapy • Strengthen routine M&E for TB contact investigations, HIV testing, TB preventive therapy including outcomes, and pharmacovigilance	• DoH • NGOs
People living in informal settlements (also a vulnerable population for HIV and STIs)	• Facilitate access and demand creation to increase community HIV, TB and STI service provision • Intensify GBV programmes and screening • Accelerate social support • Community education • Provide mobile services to improve accessibility • Infection control strategy for TB	• DoH • DSD • NGOs
People living with HIV	• Prompt ART initiation as a component of TB prevention • Adherence and psychosocial support • Peer education and support for TB prevention and treatment	• DoH

Inclusive package of services for all key and vulnerable populations that will be customised to age and population served		Multi-sectoral partner
	• Optimal uptake of preventive therapy for TB • Infection control in facilities, communities and households • TB symptom screening at each visit, linkages to treatment and care • HIV screening for household members, including partners and children • Cohort monitoring of HIV/TB co-infected patients • Support groups specifically addressing internalised stigma	
Pregnant women and neonates	• Full access to PMTCT services • Household TB and HIV screening, immediate linkage to treatment • Improve mother–child pair tracing and service delivery • Improve TB screening and testing among pregnant women to reduce congenital and perinatal TB transmission • Improve diagnostic and treatment capacity for neonatal TB	• DoH • NGOs • DSD

Addressing social and structural drivers	Service	Multi-sectoral partner
Strengthened and scaled-up community based one-stop Khuseleka Centres	• Integrate community support programmes in one-stop centres	• DSD • SAPS • DoH • DOJ
Strengthened and scaled-up community-based 'white-door' shelters	• Provide short-term (72-hour) places of safety and shelter within communities and referral/integration with HIV/TB/STI services	• DSD • SAPS • DoH • DOJ
Identify and speedily allocate social grants to all who are eligible	• Link PLHIV, TB clients to social security programmes for access to social relief distress grants	• DSD • Civil society including NGOs
Scaled-up provision of food parcels, and nutritional supplementation to all eligible PLHIV and PTB	• Strengthen capacity of HIV/TB providers to screen for food insecurity • Ensure access to sufficient food in particular for PLHIV and PWTB • Expand drop-in centres especially in high-burden districts • Expand access through Isibindi model	• DSD • NGOs • SANAC sectors
Expand inpatient and outpatient rehabilitation facilities	• Develop adolescent-friendly practices • Sensitise and capacitate HCWs to screen for and refer and provide interim support	• DSD • DoH

Addressing social and structural drivers	Service	Multi-sectoral partner
	for people with harmful use of alcohol and drugs • Expand availability of inpatient rehabilitation facilities	• DBE • NGOs
Implementation of harm reduction services to identify and support people who use substances and alcohol	• The Drug Master Plan harm reduction interventions including the provision of Opioid Substitution Therapy • Needle and syringe exchange programmes by NGOs • Identify for referral to in- and out-patient rehabilitation services	• DSD • DoH • NGOs • DBE • DHET
Community awareness and advocacy programmes	• Implement programmes to increase awareness of services	• DSD • Civil society including NGOs
Combination socio-economic programmes	• Strengthen economic capacities through support to access further education, training, job placements and entrepreneurial activities, including for PWDs	• DSD • Private sector • DHET • Civil society including NGOs
Training for adolescent girls and young women	• Empower young women, such as through SABCOHA's BizAIDS programme, to start and improve their own businesses • Encourage companies to support the programme through co-funding and job opportunities	• SABCOHA and other private sector • Organised labour • DOT

Comprehensive package of services for the general population, that will then be supplemented and customised to the age and population served	Multi-sectoral partner
• Accessible, friendly, comprehensive service delivery and health education, customised to client needs • HIV screening, testing, treatment • STI screening, testing, treatment • TB screening, testing, treatment and contact tracing for DS- and DR-TB • Medical male circumcision, referral • Comprehensive SRH services (including: cervical cancer screening, Pap smears, access to emergency contraception, choice of termination of pregnancy) • Prevention of mother-to-child transmission (PMTCT) of HIV • Mental health screening and psychosocial support • Access to PEP and post-sexual assault support • Alcohol and drug-use screening, referral • Violence screening, referral	• All implementing agencies • DoH • DSD • NPA • DBE • NGOS • PCA and DAC

• Condom promotion and provision • Targeted social and behaviour change communication			
Population	**Services/Interventions/Approaches**	**Setting**	**Multi-sectoral partner**
Children	• Child abuse screening • Age-appropriate HIV testing, treatment, adherence support • Support for disclosure of HIV status • HIV testing of household adult or adolescent index client • Contact tracing from adult, adolescent TB cases • Sputum induction for TB testing • Update hospital admission requirements for DR-TB treatment • Comprehensive sexuality education: Sexuality, puberty education, gender and empowerment, GBV, reproductive health, contraception, alcohol and drug use prevention, decision-making, self-esteem	• Health facility-based • School-based • Community-based • Mobile services	• DoH • DBE • DSD • CBOs • NGOs • Private employers • Private healthcare providers
PLHIV (adults, adolescents)	• Hearing and vision screening, referral, treatment • Partner HIV testing, disclosure support, treatment, adherence support • Hepatitis B and HPV vaccine where eligible • PMTCT and enhanced adherence support through pre- and post-natal period, including breastfeeding • Gender norms • Health and health rights literacy • Economic empowerment and health promotion • School retention • Accelerated nutritional and social grant support, if indicated • Targeted demand creation for services • Targeted, PLHIV-friendly IEC materials and SBCC, including social media and materials for those with vision and hearing impairment • Service delivery points in community, non-traditional settings	• Health facility-based • School-based • Community-based • Mobile services	• DoH • DBE • DCS • DSD • CBOs • NGOs • Private employers • Private healthcare providers
Persons with TB (adults, adolescents)	• TB contact tracing, testing and post-exposure management • Partner HIV testing, disclosure support, treatment, adherence support • Enhanced health education about HIV/TB co-infection, reinfection • Hearing and vision screening, referral, treatment • Hepatitis B and HPV vaccine where eligible • PMTCT and enhanced adherence support through pre- and post-natal	• Clinic-based • School-based • Community-based • Mobile services	• DoH • DBE • DCS • DSD • CBOs • NGOs

Population	Services/Interventions/Approaches	Setting	Multi-sectoral partner
	period, including breastfeeding, if indicated • Mental health screening • Gender norms education • Health and health rights literacy • Economic empowerment and health promotion • School retention • Accelerated nutritional and social grant support, if indicated • Targeted, TB-friendly IEC materials and SBCC, including social media and materials for those with vision and hearing impairment • Service delivery and treatment delivery points in community, non-traditional settings		• Private employers • Private healthcare providers
Discordant couples	• Partner HIV testing, disclosure support, treatment, adherence support • Hepatitis B and HPV vaccine where eligible • PMTCT and enhanced adherence support through pre- and post-natal period, including breastfeeding if pregnant and HIV-positive • Gender norms • Health and health rights literacy • Economic empowerment and health promotion • Accelerated nutritional and social grant support, if indicated • Targeted demand creation for services	• Clinic-based • Community-based • Mobile services	• DoH • DCS • DSD • CBOs • NGOs • Private employers • Private healthcare providers

Generic HIV, TB and STI prevention, management and care		
Focus	**Activities**	**Multi-sectoral partner**
Promote retention in care for all PLHIV on ART	This will be supported and strengthened by: • Increased efforts to implement the test and treat policy at facility level through the DIP process • Increased quality assurance to promote adherence to guidelines • Expansion of implementation strategies to include community based ART initiation demonstration projects for well patients, including the use of GPs • Prioritise rapid and same day ART initiation • Implement extended hours services for working people and adolescents • Use PLHIV in health facilities and communities to encourage linkage to care • Explore innovative ways to improve patients' linkage to services • Differentiated ART delivery for stable patients, including a minimum of 3 months drug supply and optimised prescription periods to meet the needs of key and vulnerable populations and improve adherence • Ensure a functional fast lane for collection of repeat drug prescriptions at all pharmacies • Use of approved patient representatives to collect ART refills • Expand of the Central Chronic Medicine Dispensing and Distribution programme • Implementation of a return friendly system in all facilities • Track and improve the management of chronic diseases and their complications, as the population on ART ages	• DoH • DoT • Dept. of Agriculture • Private Sector • Civil society (PLHIV sector)
Improve adherence support	• Implementation of a comprehensive and age appropriate psychosocial package to enhance adherence • Promoting the establishment of peer-led differentiated support groups for new and stable patients • Ensuring their linkages to psychosocial support.	• DSD • DoH • Private Sector
Intensified facility-level TB case-finding	• Passive case-finding (test individuals presenting with symptoms of TB • Routine symptom screening for all adult clinic attendees • Undertaking Xpert MTB/RIF test for symptomatic individuals not tested for TB in the last 3 months and undertaking culture test for HIV+, Xpert-negative cases	• DoH • Private healthcare providers
Improve laboratory diagnostics to deliver optimal DS and DR-TB	• Universal implementation of Xpert MTB/RIF as initial diagnostic tests • Monitoring and optimising implementation of all existing algorithms • Implementing robust reflex testing for samples found to be Xpert RIF resistant	• DoH

Generic HIV, TB and STI prevention, management and care		
Focus	**Activities**	**Multi-sectoral partner**
services	• Developing a platform for introduction of new diagnostics • Prepare and train on guidelines and algorithms in advance of Xpert Ultra introduction • Upgrade the laboratories to ensure sufficient second line LPA coverage to ensure optimal implementation of MDR-TB short regimen • Implement lessons learnt from Xpert rollout • All labs doing second line LPA should be either able to conduct phenotypic second line drug sensitivity testing or have easy referral to a lab that has this capability.	
Active case-finding for key and vulnerable populations	• Screening of household contacts under 5 years of age • Intensified TB screening and access to appropriate treatment in correctional facilities, mines, informal settlements and antenatal clinics and for diabetics, PLHIV, health care workers and all household contacts • Contact tracing for all household members of TB index cases • Routine screening for health care workers • TB screening and testing among pregnant women to reduce congenital and perinatal TB transmission • Improved paediatric sputum induction at PHC and hospital level.	• DoH • NGOs and CBOs working in this area • DBE • DSD • Private healthcare providers
Reduce initial loss to follow-up rates for DS and DR TB cases	• Retrain staff and implement on-going clinical governance using QI approach • Establish initial loss to follow-up rate as a management priority as part of the DIP process • Reduce duration and number of visits from symptom onset to treatment initiation.	• DoH • Districts • Facilities • Development partners
Provide standard care for DS-TB cases	• Provision of adherence support and retention of patients in care for treatment duration including referral for psychosocial support as needed • Bacteriological monitoring of treatment outcomes and implementation of recommendations from reviews • National research priority studies to determine what health facility and programme management interventions impact on treatment outcomes, whether alternative drug dispensing strategies affect adherence and patient outcomes and what clinical management and adherence support strategies improve treatment outcomes? • The multi-sectoral TB Think Tank using the findings to timeously review and	• DoH • Civil society (PLHIV, PTB sectors) • NGOs

Generic HIV, TB and STI prevention, management and care		
Focus	**Activities**	**Multi-sectoral partner**
	update policies.	
Scale up short-course MDR-TB treatment and provide decentralised MDR-TB care	• Training and mentoring of staff on these at PHC level and referral centres • Adaptation of the EDR to accommodate new regimens • Monitoring the initiation rate of patients on the new regimen as part of the DIP process to optimise uptake • Provision of psychosocial support to patients who need it.	• DoH
Implement a quality improvement (QI) initiative to close gaps in the TB care cascade and improve programme outcomes.	• Development of DoH capacity to undertake QI (district and sub-district teams established; leadership and QI skills developed; tools and guidelines developed; learning networks established) with demonstration sites for QI established • All implementing partners to implement TB QI projects • Then undertake district baseline assessments and set targets for national scale-up based on successful models including nurse initiated care.	• DoH • Support partners
Implement the National Framework guidance on the detection and treatment of asymptomatic STIs	• Developing, testing and validation of the sexual history tool for different populations and different ages as the basis for screening tests and / or presumptive treatment • Building capacity of health workers on the use of the tool and integrating it into all customised delivery sites. • Improved ACSM in high burden districts through targeted STIs messages. • Using the sexual history tool to screen and treat priority populations (pregnant women, AGYW and SW) for asymptomatic STIs.	• DoH, NICD, NHLS • Dept. of Transport • Civil society (key population sectors) • District Management Teams • Private health sector
Appropriate syndromic management of STIs	• Ensuring appropriate management of cases non-responsive to the syndromic approach • The use of mobile outreach services for men with extended hours • Implementation of strategies to strengthen partner notification and contact tracing especially for key populations • Training and re-training of HCWs on syndromic management • Quality assurance programmes and advanced level STI management in secondary hospitals and CHCs with the necessary tools and training.	• DoH • DHET/HEAIDS • Private health sector
Screening of all pregnant women for syphilis at first ANC visit	• Screening for syphilis at birth for all infants born to Syphilis positive women or to women who were unbooked or untested • Linking all children diagnosed with congenital syphilis to care and ensuring they receive treatment; • Intensified notification process	• DoH • Private health sector

Generic HIV, TB and STI prevention, management and care		
Focus	**Activities**	**Multi-sectoral partner**
	• Routine congenital syphilis monitoring and tracing and management of confirmed syphilis clients.	
Promote integration of STI prevention care and treatment into HIV, TB, ANC, sexual and reproductive health services	• Strengthened ART initiation at STIs services or linkage to ARV services	• DoH • Private health sector

Appendix A: Selecting Data for the Profile

It is important to note that the quality of an HIV epidemic and risk profile depends on the quality of secondary data used. The following are considerations for reviewing data and data sources to be used in the epidemiologic profile:

- **Completeness of the data:** How well do the prevalence of HIV and the associated factors represent the true number of persons living with HIV in the selected service and/or administrative area?

- **Representativeness of the data:** How well do the characteristics from a data source correspond to the characteristics of the overall population? For example, data from a hospital-based sample may not represent all HIV-infected persons or all HIV-infected persons in care in the area covered by the survey.

- **Age of the data:** For example, a behavioural survey conducted in 2000 might not provide data that are sufficiently up-to-date for current prevention activities.

- **Timeliness of the data:** if dealing with administrative data, how long is the reporting delay between the diagnosis of HIV and associated socio demographic characteristics recorded and reported to relevant departments?

- **Surrogate, or proxy, markers:** A proxy variable can be used as a marker for other variables when what we really want to measure is too difficult to measure directly. For example, some areas may use STI data as a proxy when data on sexual behaviours are not available.

- **Reliability of the data:** How accurate and complete are the data? For example, how well was information e.g. age, recorded whether in a survey or in administrative records and transcribed to the case report from the medical record.

- **Small numbers:** Small numbers of cases need to be interpreted with caution because small absolute changes in the number of cases can produce large relative or proportionate changes in rates that may be misinterpreted by end users. Rates calculated from numerators smaller than 10 should be denoted in a footnote as unreliable.

Data assumptions and limitations

The National Department of Health collects routine HIV data. The data is captured in the National Health Information Repository and Data warehouse (NIRDS), through the provincial and district health information systems (DHIS). The data are mostly obtained through routine service delivery by providers e.g. health facilities, and PHC clinics and consist of reports of confirmatory HIV tests, viral loads and CD4 counts. Additionally, the system captures case reports and interview data that might include information on socio-demographics e.g. age, race, sex. Data on socio demographics rely heavily on patient and provider reporting. In most cases data of this nature may be obtained from independent cross-sectional and bio-behavioural surveys and only reported at much higher geographical levels than local levels or high burden areas. The bio-behavioural surveys also provide data on sexual risk behaviours.

Age breakdown of routine indicators are limited to predefined indicators, with no sex breakdown available at Provincial and National Dataset level. No key population specific data can be segregated from any of the available datasets. Given the importance of key populations in understanding of the local context, this is considered a serious limitation in available routine data. Data on HIV risk exposure or mode of transmission require disease specialists and willingness of patient to participate is also not available at national and/or local level. Mobile clinic data is reported under the point where mobile is working from and is not segregated by service delivery point. This skews the picture when data is projected geospatially. Sexual risk data not part of routine data collected, secondary data available from surveys are included for this yet this is only available at District level. Figure 32 below reflects on the source of various levels of data for the profile. Data is presented at the level that it is available.

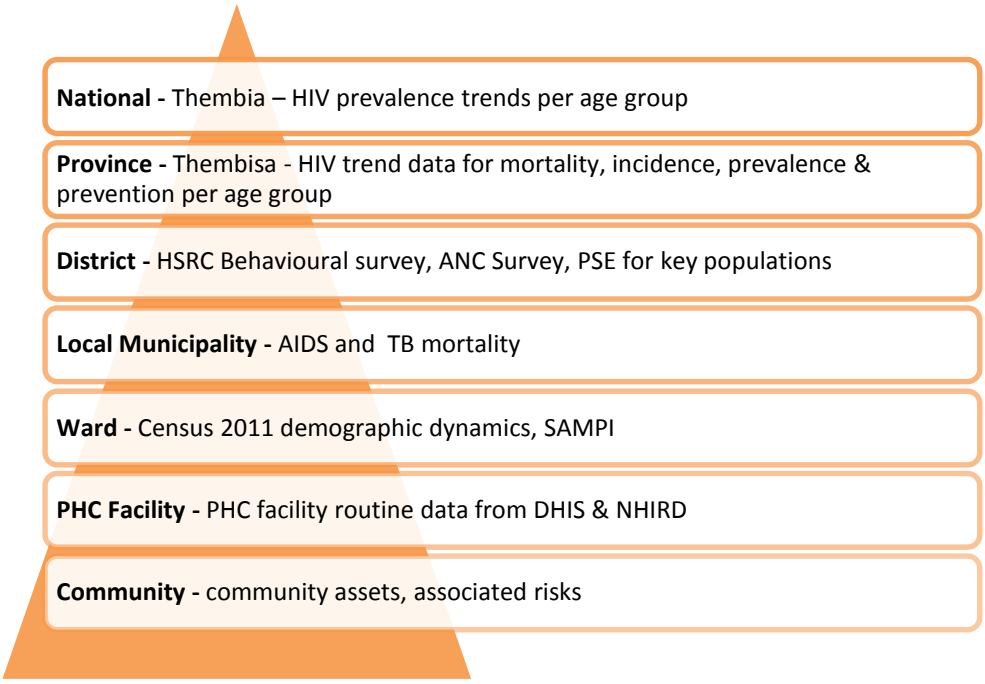

Figure 32: Data pyramid used for risk profiles

Care is also taken to avoid reporting on small number of cases without caution. Definitions and outlines of calculations are provided in

Catchment area and catchment populations

The catchment population is different from a catchment area, whereby the population is not simply just a count of the total number of people that are resident within that geographical boundary, but is rather an estimate of the estimated population that could access that specific facility.

Agreement on a health-care facility's catchment area is an important component in the Focus for Impact approach for defining the soft boundary for associated risk profiling within the catchment population linked to a specific HIV high burden area, estimate population-based rates of HIV, TB and STI as well as other important analyses.

For the purpose of the Focus for Impact approach demographic data for the population is derived from the Census 2011 data linked to a specific ward within the agreed catchment areas.

Working closely with the KZN DoH, the DoH used a geospatial approach to allocate each ward in KZN to the closest health facility. For the purposes of the Focus for Impact approach only the catchment area of fixed PHC facilities were used. Please keep in mind that multiple PHC facilities (fixed and mobile) refer to a specific Hospital and therefore relates to a larger catchment area that might overlap with several PHC facility catchment areas.

It is acknowledged that this approach does not take into consideration the topography of the area or preferences of the health facility users. It is therefore suggested that the catchment area be used as a starting point and that the approach be refined to determine the catchment population as better data becomes available e.g. through the scale up of the Health Patient Registration System (HPRS) where more granular patient level data will become available.

HIV associated risks

The HIV associated risk profile is a tool to assist decision-makers to design appropriate and sustainable interventions for HIV prevention. The diagram below illustrates factors affecting HIV associated risk. Data in this profile links with the different variables identified below (as far as it is available).

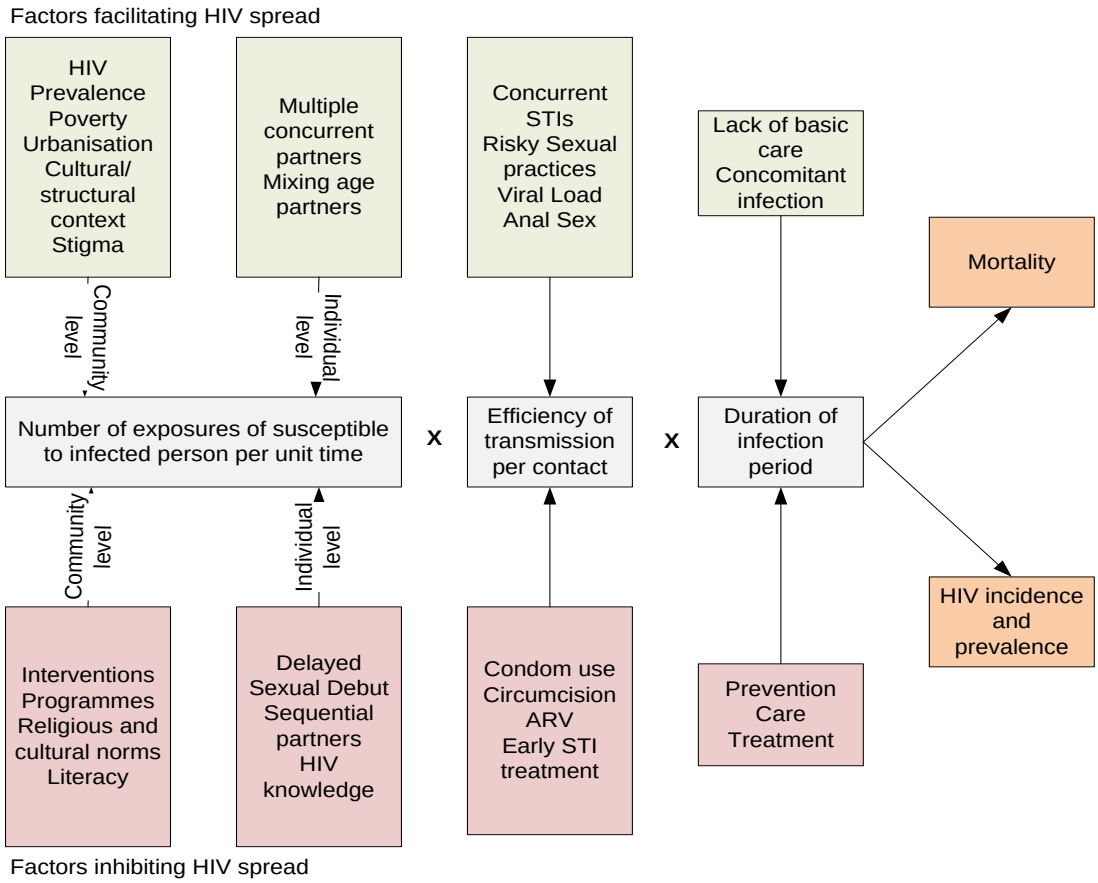

Figure 33: Factors influencing HIV associated risk and outcomes

Appendix B: Terms, Definitions and calculations

ANC client HIV 1st test positive rate (routine health indicator DHIS 2015)	Short Name - ANC HIV 1st test pos rate Numerator - Antenatal client HIV 1st test positive Denominator - Antenatal client HIV 1st test Indicator Type - % Definition - Antenatal clients tested HIV positive as proportion of antenatal clients HIV tested for the first time during current pregnancy
Antenatal client HIV re-test positive rate (routine health indicator DHIS 2015)	Short Name - ANC HIV re-test pos rate Numerator - Antenatal client HIV re-test positive Denominator - Antenatal client HIV re-test Indicator Type - % Definition - Antenatal clients re-tested positive for HIV as proportion of antenatal clients re-tested for HIV
Behavioral data	Data collected from studies of human behavior that is relevant to disease risk. Relevant behaviors for HIV risk may include sexual activity, substance use, needle sharing, condom use, or responses to primary and secondary prevention messages, knowledge of HIV transmission and prevention
Data	Raw, unprocessed numbers
Delivery in facility under 18 years rate (routine health indicator DHIS 2015)	Short Name - Delivery 18 rate Numerator - Delivery under 18 years in facility Denominator - Delivery in facility - total Indicator Type - % Definition - Deliveries to women under the age of 18 years as proportion of total deliveries in health facilities
Dependency ratio	The dependency ratio is an indicator of potential dependency burden of children and the elderly on those who are of economically productive ages in a population. Source Census 2011
Epidemiologic profile	A document that describes the distribution of HIV in various populations and identifies characteristics both of HIV-infected and HIV-negative persons in defined geographic areas. It is composed of information gathered to describe the effect of HIV on an area in terms of socio-demographic, geographic, behavioral, and clinical characteristics. Identifies characteristics of the general population and of populations who are living with, or at high risk for HIV infection in the pre-defined geographic areas in need of primary and secondary prevention or care services; and also identifies social, behavioral, cultural, factors driving local HIV infection. This providing information required to conduct needs assessments and gap analyses to complete the local HIV profile
Female condom distribution coverage (routine health indicator DHIS 2015)	Short Name - Fem condom dist cov Numerator - Female condoms distributed Denominator - Female population 15 years and older Indicator Type - % Definition - Female condoms distributed from a primary distribution site to health facilities or points in the community (e.g. campaigns, non-traditional outlets, etc.)
HIV prevalence amongst client tested 15-49 years	Short name - HIV test 15-49y pos rate Numerator - HIV test positive 15-49 years, excl ANC Denominator - HIV test 15-49 years, excl ANC

rate (routine health indicator DHIS 2015)	Indicator Type - % Description - Proportion of clients on whom an HIV test was done who tested positive for the first time
HIV test positive child 12-59 months rate (routine health indicator DHIS 2015)	Short Name - HIV+ 12-59 rate Numerator - HIV test positive 12-59 months Denominator - HIV test 12-59 months Indicator Type - % Definition - Children 12 to 59 months who tested HIV positive as a proportion of children who were tested for HIV in this age group
HIV test positive child 5-14 years rate (routine health indicator DHIS 2015)	Short Name - HIV+ 5-14 rate Numerator - HIV test positive 5-14 years Denominator - HIV test child 5-14 years Indicator Type - % Definition - Children 5 to 14 years who tested HIV positive as a proportion of children who were tested for HIV in this age group
Incidence	The number of new infections in a defined population during a specific period, often 1 year, which can be used to measure disease frequency. There is an important difference between HIV incidence and a new diagnosis of HIV infection: HIV incidence refers to persons newly infected with HIV, whereas persons newly diagnosed with HIV may have been infected years before the diagnosis. Population-based incidence estimates include new infections that have been diagnosed as well as new infections that have not been diagnosed. HIV incidence data may be used to monitor emerging trends and guide prevention activities
Indicators	A quantitative or qualitative variable that provides a simple and reliable measurement of one aspect of performance, achievement or change in a program or project
Infant 1st PCR test positive around 6 weeks' rate (routine health indicator DHIS 2015)	Short Name - PCR at 10w pos rate Numerator - Infant PCR test positive around 6 weeks Denominator - Infant PCR test around 6 weeks Indicator Type - % Definition - Infants tested PCR positive for follow up test as a proportion of Infants PCR tested around 6 weeks
Infant rapid HIV test around 18 months positive rate (routine health indicator DHIS 2015)	Short name - HIV test 18m pos rate Numerator - HIV test positive around 18 months Denominator - HIV test around 18 months Indicator Type - % Description - Infants tested positive for HIV antibodies around 18 months after birth as the proportion of Infants tested for HIV antibodies around 18 months
Information	Processed or analysed data that adds context through relationships between data to allow for interpretation and use
Intensity of poverty	The average proportion of indicators in which poor households are deprived. Example, an intensity of 44% in 2011 means the average intensity of poverty was 44% amongst the 20% poor households
Male condom distribution coverage (routine health indicator DHIS 2015)	Short Name - Male cond dist cov Numerator - Male condoms distributed Denominator - Male population 15 years and older Indicator Type - %

	Definition - Male condoms distributed from a primary distribution site to health facilities or points in the community (e.g. campaigns, non-traditional outlets, etc.)
Male urethritis syndrome rate (routine health indicator DHIS 2015)	Short Name - MUS rate Numerator - Male Urethritis Syndrome treated - new episode Denominator - STI male - new episode Indicator Type - % Definition - Male Urethritis Syndrome new episodes treated as a proportion of total males with STI new episodes treated
Modes of HIV transmission or mode of HIV exposure	Heterosex (or heterosexual contact with a partner who is HIV positive or at increased risk for HIV. Often this level of knowledge about sexual partners (anonymous, casual, or exclusive) may be unknown; Men who have sex with men (MSM); People who Inject Drugs (PWID); Joint risk of MSM/PWID; and Other mode of exposure including (transplant, hemophilia, transfusion or mother with HIV or HIV risk (PMTCT)
Morbidity	The presence of illness in the population.
Mortality	The total number of persons who have died of the disease of interest. Usually expressed as a rate, mortality (total number of deaths over the total population) measures the effect of the disease on the population as a whole
Percentage	A proportion of the whole, in which the whole is 100. Example: Assume that 10 of the 40 cases of AIDS in a given year in a Ward occurred in men. (10 ÷ 40) x100= 25%
Poverty Headcount	The proportion of households defined as multi-dimensionally poor using the poverty cut-off. Example a headcount of 20% in 2011, based on 2011 census, means that 20% of households in South Africa were poor.
Prevalence	The proportion of cases of a disease in a population at risk, measured at a given point in time (often referred to as point prevalence). Prevalence can also be measured over a period of time (e.g., a year; known as period prevalence). Prevalence does not indicate how long a person has had a disease. It can provide an estimate of risk for a disease at a specific time. Prevalence data provide an indication of the extent of a condition and may have implications for services needed in a community. For HIV surveillance, prevalence refers to living persons with HIV disease, regardless of time of infection or date of diagnosis.
Qualitative data	Information from sources such as narrative behaviour studies, focus group interviews, open-ended interviews, direct observations, ethnographic studies, and documents. Findings from these sources are usually described in terms of common themes and patterns of response rather than by numeric or statistical analysis. Qualitative data often complement and help explain quantitative data
Quantitative data	Numeric information (e.g., numbers, rates, and percentages).
Rate	Measure of the frequency of an event compared with the number of persons at risk for the event. When rates are being calculated, it is usual for the denominator to be the general population rather than the population potentially exposed to HIV infection by various high-risk behaviours. The size of the general population is known from data from

	the U.S Census Bureau, whereas the size of a population at high risk is usually not known. $\frac{\text{number of HIV diagnoses}}{\text{Population}} X\ 100000 =\ \text{population rate of HIV diagnosis}$ Calculated for a given period. The multiplier (100,000) is used to convert the resulting fraction to number of cases per 100,000 populations. Although arbitrary, the choice of 100,000 is standard practice. Example: Assume that 200 cases of HIV disease were diagnosed during 2014 in a Ward X and that 400,000 persons lived in the Ward X in 2014 Rate: 200 ÷ 400,000 × 100,000 = 50 per 100,000
Routine health service based information	In terms of the National Health Act (Act 61 of 2003) the National Department of Health (NDoH) is required to facilitate and coordinate the establishment, implementation and maintenance of health information systems at all levels. The District Health Management Information System (DHMIS) Policy 2011 defines the requirements and expectations to provide comprehensive, timely, reliable and good quality routine evidence for tracking and improving health service delivery. The strategic objectives of the policy are to strengthen monitoring and evaluation (M&E) through standardization of data management activities and to clarify the main roles and responsibilities at each level for each category of staff to optimize completeness, quality, use, ownership, security and integrity of data. In 2000 the District Health Information System (DHIS) was adopted as the official South African routine health information system for managing aggregated routine health service based information. This information is defined as specific indicators and used in Focus for Impact to ensure standardization of indicators across the different geographical areas. Source: Department of Health. 2015. NDOH Data Directory. Available online from http://dd.dhmis.org/index.html
Service area	The jurisdictions of service areas or planning regions of respective planning groups. Example Health districts, sub- districts, wards or health facility catchment areas
Socio-demographic factors	Background information about the population of interest (e.g., age, sex, race, educational status, income, geographic location). These factors are often thought of as explanatory because they help us to make sense of the results of our analyses
Socio-economic status (SES)	A measure of social and economic factors that helps to describe a person's standing in society (e.g., income level, relationship to the national poverty line, educational achievement)
South Africa Multidimensional	The SAMPI is based on the global Multidimensional Poverty Index (MPI) which is an international measure of acute poverty. The MPI

Poverty Index (SAMPI[16]) (StatSSA, 2014)

"complements traditional income/ expenditure-based poverty measures by capturing the severe deprivations that each person or household faces with respect the following dimensions: - education (measured by years of schooling and school attendance indicators), health (measured by nutrition and child mortality indicators), and living standards (measured by indicators such as cooking fuel, Sanitation, water, electricity, floor, and assets).

The MPI creates a comprehensive picture of who and where people are that are living in poverty… [and it also] permits comparisons within countries by population group, settlement type, as well as other key household and community characteristics.

The SAMPI includes an additional dimension –the economic activity indicated by adult unemployment

Dimension	Indicator	Deprivation cut-off
Health	Child mortality	If any child under the age of 5 has died in the past 12 months
Education	Years of schooling	If no household member aged 15 or older has completed 5 years of schooling
	School attendance	If any school-aged child (aged 7 to 15) is out of school
Standard of living	Fuel for lighting	If household is using paraffin/candles/nothing/other
	Fuel for heating	If household is using paraffin/wood/coal/dung/other/ none
	Fuel for cooking	If household is using paraffin/wood/coal/dung/other/ none
	Water access	If no piped water in dwelling or on stand
	Sanitation type	If not a flush toilet
	Dwelling type	If an informal shack/traditional dwelling/caravan/tent/other
	Asset ownership	If household does not own more than one of radio, television, telephone or refrigerator and does not own a car
Economic activity	Unemployment (all adults)	If all adults (aged 15 to 64) in the household are unemployed

SAMPI is the product of the headcount (proportion of households defined as multi-dimensionally poor using the poverty cut-off) and intensity of poverty (average proportion of indicators in which poor households are deprived)

Example - If the headcount poverty was 20% in 2011 (i.e. 20% of all

[16] StatSSA. (2014). *The South African MPI: Creating a multidimensional poverty index using census data*. Pretoria, South Africa.

	households were poor in 2011), and the average intensity of poverty amongst the poor households was 44%. Then the SAMPI equals 0.09(=20% X 44%) In an extremely poor society where all households are poor and are deprived in all dimension indicators, the SAMPI score would be 1, 0. However, in an impoverished society where 50% of households are poor and experienced deprivation on 50% of all dimensions, the SAMPI score would be 0. 25.
TB (pulmonary) case finding index (routine health indicator DHIS 2015)	Short name - PTB case finding index Numerator - TB suspect 5 years and older sputum sent Denominator - PHC headcount 5 years and older Description - Proportion of clients 5 years and older, who were identified as TB suspects and for whom sputum was sent to the laboratory Growth-Sentiment - negative (high values are negative, low values are ideal: positive)
TB suspect smear positive rate (routine health indicator DHIS 2015)	Short name - TB suspect smear pos rate Numerator: TB suspect 5 years and older test positive Denominator: TB suspect 5 years and older sputum sent Indicator Type - % Description - Proportion of TB suspects with smear positive sputum results Growth-Sentiment: negative (high values are negative, low values are ideal: positive)
TB suspect sputum test rate (routine health indicator DHIS 2015)	Short name - TB susp sputum test rate Numerator - TB suspect 5 years and older sputum sent Denominator - TB suspect 5 years and older identified Indicator Type - % Description - Proportion of TB suspects with sputum sent to the laboratory for testing Growth-Sentiment: positive (low values are negative, high values are ideal: positive)
TB suspect treatment initiation rate (routine health indicator DHIS 2015)	Short name - TB suspect treatment rate Numerator - TB suspect 5 years and older initiated on treatment Denominator - TB suspect 5 years and older test positive Indicator Type - % Description - Proportion of smear positive TB suspects initiated on treatment Growth-Sentiment - positive (low values are negative, high values are ideal: positive)
Triangulation	Synthesis of data to compare and contrast the results of different kinds of research that address the same topic

Appendix C: Methodology for stakeholder engagement to explore local level data

The feedback from the community brings a local intelligence and ownership to the process that not only facilitates buy-in for HIV programming, but also brings about an opportunity for advocacy and accountability at this level. This gives new meaning to 'nothing about us, without us'. There is internal validation and triangulation of the data through this process, as stakeholders should be from various sectors/departments and types of organisations. Groups within the workshop validate the information before it is documented. In addition, the same information is tested with a community group (that should include members of key populations) and additions made with consensus.

Figure 34 below describes the various steps followed to develop this risk profile. A detailed guideline is available from SANAC that can be used be stakeholders and partners to ensure a standardised approach in the development and updating of the risk profile.

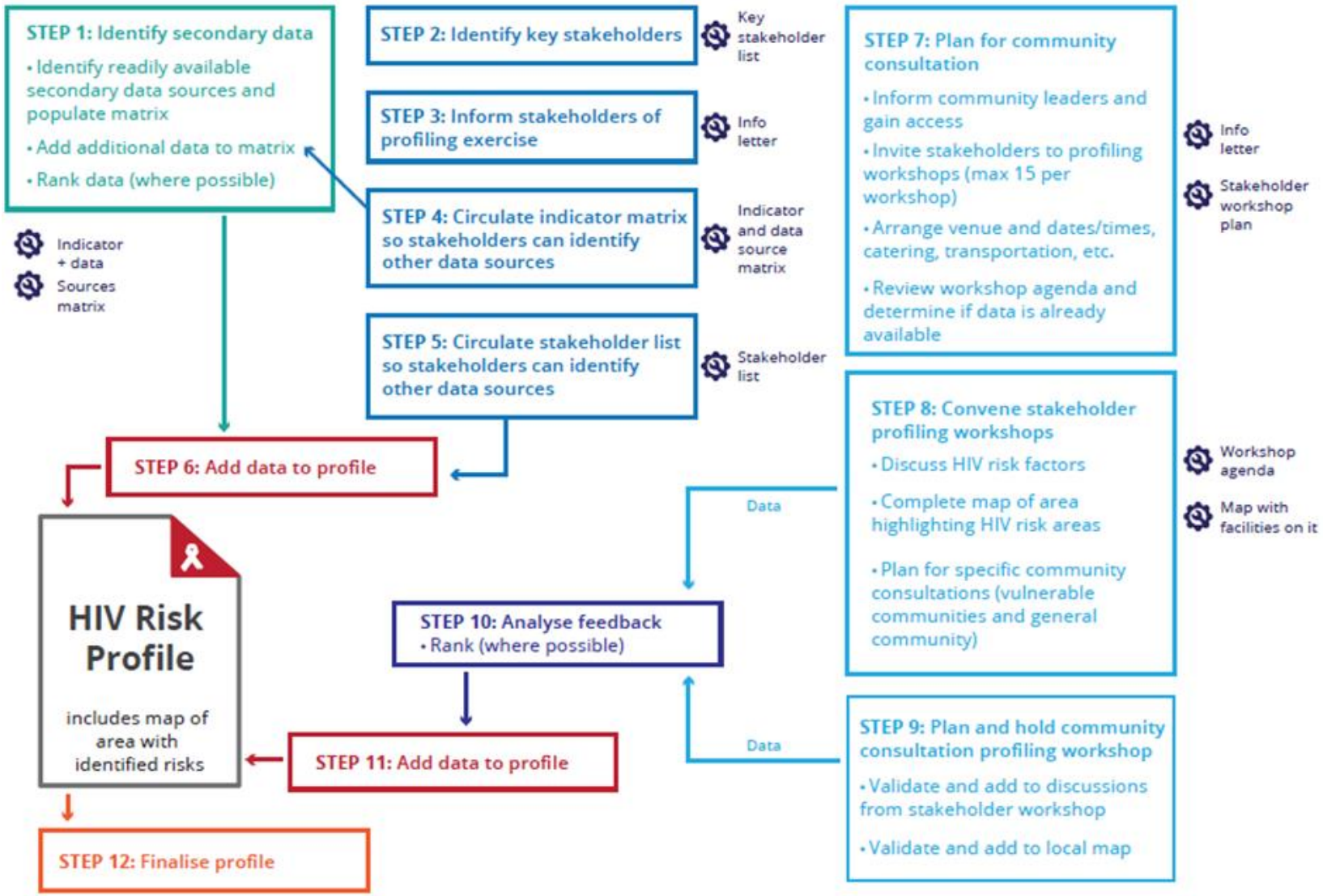

Figure 34: Steps for development of HIV associated risk profile