ADULT MORTALITY LEVELS AND TRENDS IN BOTSWANA

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Abstract: This paper uses the data from 2011 Population Census of Botswana to examine levels and trends in adult mortality in Botswana using information on the distribution of deaths and population by age. Estimates of mortality indicate that mortality levels in Botswana have gone down between 2001 and 2011 nationally and across all districts. The data also shows that gains in life expectancy favoured urban areas to rural areas. The gains in life expectancy gained in the 1980's and reversed in 2001 have been regained. The sex differentials in mortality are still observed.

Introduction

This paper is based on the 2001 and 2011 Population and Housing Censuses data. The author recognises the fact that both morbidity and mortality are influenced by socio-economic and health conditions that prevail at a particular time and have are influenced by National policies and intervention programmes.

Methods

The paper uses the number of deaths during the twelve months preceding the 2011 Population and Housing census. Life tables for the whole country, rural, urban area, Cities/towns and Urban Villages were constructed using the reported age specific death rates by gender. First the numbers of deaths were multiplied by 1.083 to adjust for the fact that the reference period used to collect deaths was 11 months as opposed to 12 months. It is assumed that the deaths taking place twelve moths before the population census were accurately reported.

Overview of Mortality Trends and Levels

Botswana experienced declines in both mortality and fertility levels since the 1980's, from the mid 1990's the country started experiencing an increase in the level of mortality. Between 1991 and 2001 the level of mortality went up mainly as a result of the increased number of deaths associated with HIV/AIDS epidemic. As a result of the introduction of free ARV's mortality declined over the intercensal period 2001 to 2011. This demographic change has resulted from socio-economic change and investment in public health and other social services by the government of Botswana.

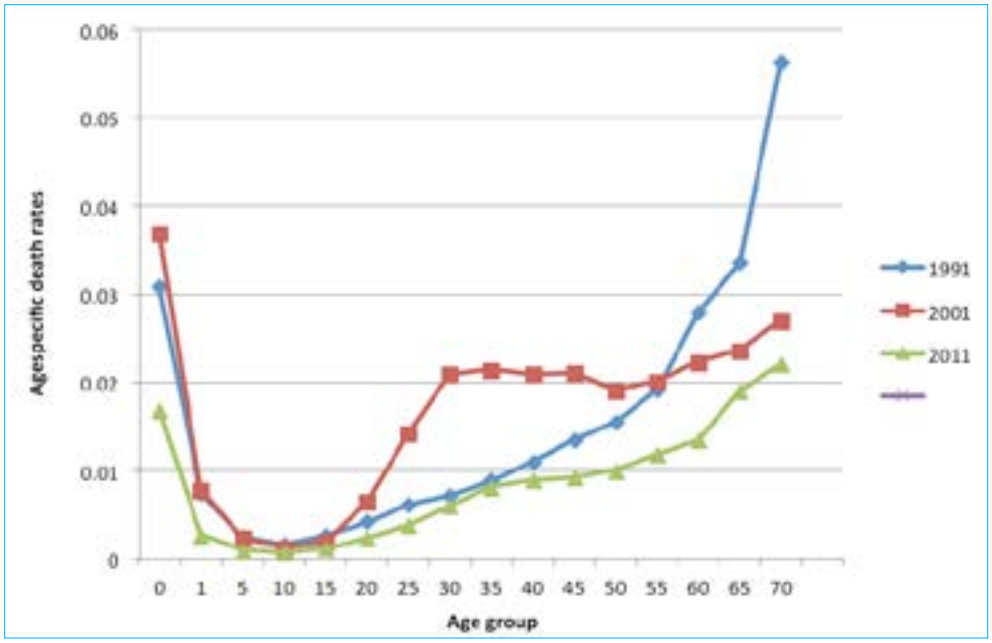
The estimates from the recent population censuses indicate that the crude death rate declined from 13.7 in 1971 to 11.5 in 1991 and increased to 12.4 in 2001 (CSO, 2001) in declined to 6.35 in 2011, While infant mortality rate dropped from 97.1 infants per 1000 live births in 1971 to 48.0 per 1000 live births in 1991 and increased to 56 per 1000 live births in 2001 and declined to a low level of 17.2 infants deaths per 1000 live births in 2011. The life tables constructed based on information on deaths during the 12 months preceding the survey shows that the probability that a one-year-old child will die before reaching age 5 has declined from 0.0358 in 1981 to 0.0160 in 1991 and increased to 0.039 in 2001 and declined again to 0.0281 in 2011. Life expectancy at birth (the average number of years a newly born baby would expect to live) has increased from 55.5 in 1971 to 56.5 in 1981 increased to 65.3 years in 1991, declined to 55.6 in 2001 and increased to a record high of 68 years in 2011.

National Adult Mortality Patterns

The two main objectives of the 2010 Revised National Population Policy was to reduce AIDS deaths, infant, child and adult mortality, especially maternal mortality including high-risk pregnancies. The data from the 2011 Population Census indicates that the aforementioned objectives are been met. Figure 1 below shows the age pattern of mortality by age calculated from the age distribution of deaths by age from the 1991, 2001 and 2011 Population Census of Botswana.

The age pattern of mortality shows that mortality during the first year of life was very high in 2001 compared to 1991 and 2011. There is very clear evidence that Infant mortality declined drastically over the period 2001 to 2011, this can be explained by the success of the National ARV and Prevention of Mother to Child Transmission Programmes. The gains in avoiding life wastage in infancy which were achieved in 1991 and reversed between 1991 and 2001 have been gained by 2011 and we are now experiencing the lowest Infant Mortality in the history of the country.

Figure1. Age Specific Death Rates Botswana: 1991; 2001; and 2011.



The age pattern of Mortality shows that the Epidemiological Transition in Botswana spear headed by HIV/ AIDS Epidemic have generally led to high mortality in the 1990's and the Introduction of free ARVS have contributed to mortality decline over the decade 2001 to 2011.

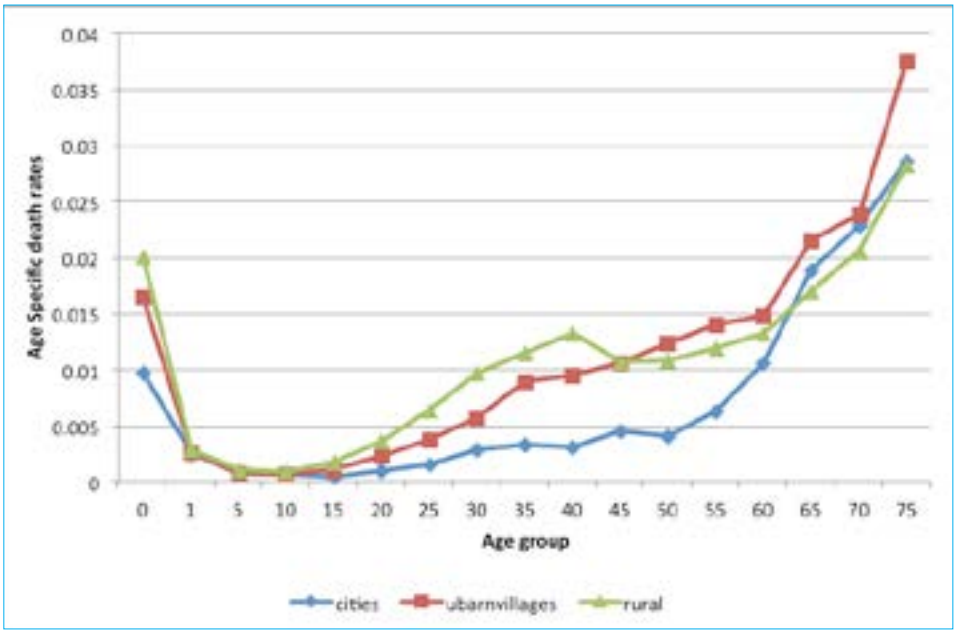
Figure 1 above shows that from age 15 to age 50 (highly sexually active population) morality in 2001 was extremely high compared to both 1991 and 2011, which shows the impact of HIV/AIDS among persons in childbearing ages in 2001 and the reduction in AIDS related deaths between 2001 and 2011 as per the objectives of the Revised National Population Policy. Generally mortality at all ages was reduced between 2001 and 2011.

Age Patterns of Mortality by Type of residence

The age patterns of mortality in 2011 differed by type of residence, namely Cities/Towns, Urban Villages and Rural areas. Generally speaking mortality is high in rural areas, followed by urban villages and very low in cities/towns. The age patter of mortality also differs by type of locality. The rural areas shows relatively high Infant mortality (under 1 year) compared to urban villages and cities/ towns. Childhood mortality (ages 1 to 5 years) is almost the same for all three types of residence. During the childbearing ages (15 to 45 years) mortality in rural areas is very high followed by urban villages and very low in cities/towns. From age 50 the urban villages experienced the highest mortality compared to rural and cities/towns. From age 65 cities/ towns have high mortality than rural areas.

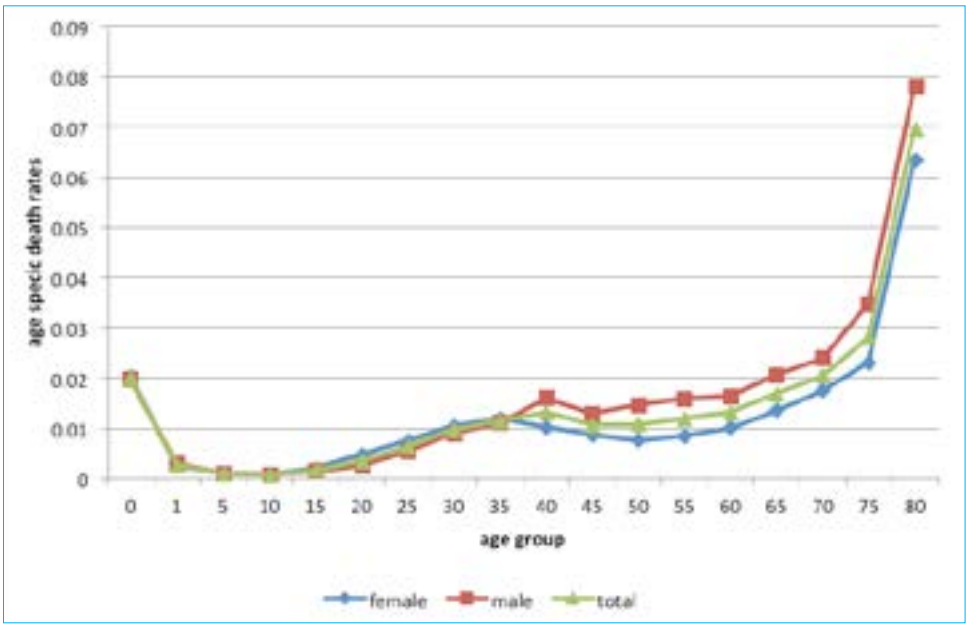
This finding clearly indicates that the intervention programmes aimed at promoting population health and mortality had different impact on the aforementioned types of residence. Rural areas did not gain as well as urban residence from the population health intervention programmes more especially the national ARV programmes.

Figure2. Age specific Death Rates for Cities/Towns, Urban Villages and Rural Areas Botswana 2011.



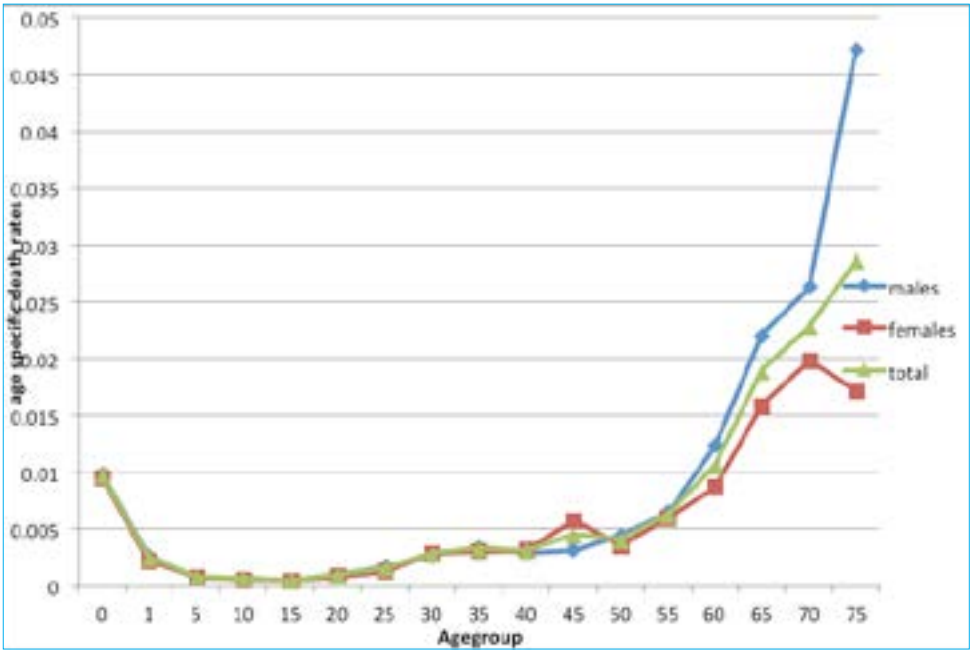
The data on the Distribution of deaths by age in 2011 shows that levels of mortality between males and females are almost identical up to age 35 with males experiencing slightly high mortality before age 15. Between age15 and age 35 females experienced slightly higher mortality which can be explained by either high maternal mortality associated with HIV/AIDS. From age 35 men experience relatively high mortality than women. The gender differentials in mortality at ages above 35 can be explained by unusualy high incidence of Tuberculosis among men and high rates of road accidents and differentials in health seeking behaviours between men and women. The high incidence of Tuberculosis among men in Botswana is not new; the HIV/ AIDS epidemic has made the situation worse.

Figure 3. Age Specific Death Rates Botswana 2011



The sex differentials in the age pattern of mortality are more pronounced when we disaggregate the data by type of residence (see Figures 4 to 6)

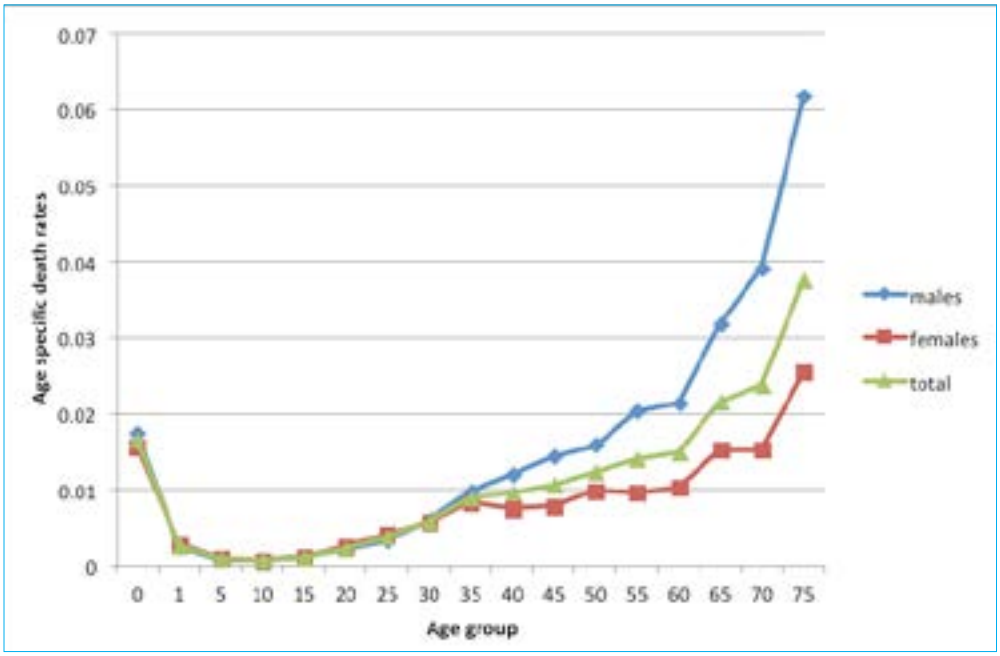
Figure 4. Age Specific Death Rates by Sex in Cities and Towns 2011



In cities/towns there are no gender differentials in mortality by age up to age 40. Between ages 40 and 50 females' experienced higher mortality and from age 55 males mortality is high compared to that of females.

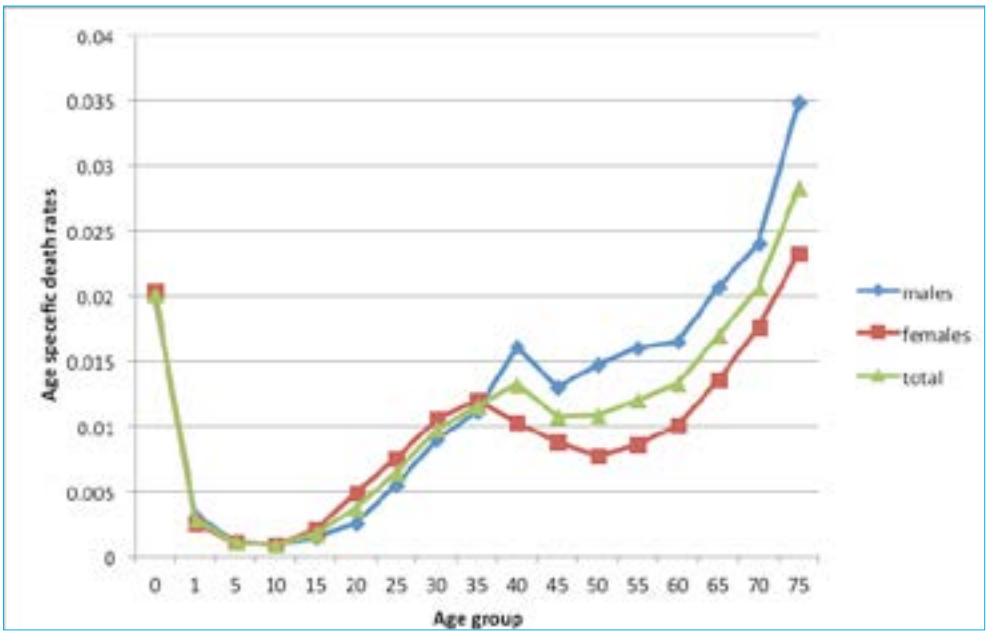
The sex differentials in urban villages is slightly different from that of cities/towns.(see figure 4 below). There is very little mortality differentials below age 35 and after age 35 males shows high mortality compared to females.

Figure 5. Age Specific Death rates by sex Urban Villages 2011



For the rural areas (see figure 6 below) there is yet another distinct sex differential of mortality by age. Infant mortality is higher than the national average and is the same for both males and females. From age 15 to age 35 females have slightly higher mortality and from age 35 males consistently have high mortality.

Figure 6. Age Specific Death rates by sex Rural 2011



Levels, Trends and Variations in Adulthood Mortality by Districts.

The 2010 Revised National Population Policy has the following Demographic targets:

- Increase life expectancy at birth for both sexes from 50.7 in 2001 to at least 67.5
- Increase life expectancy at birth for males from 52.5 in 2001 to at least 65.5
- Increase life expectancy at birth for females from 57.4 in 2001 to at least 70.5

The main objective of this paper is to come up with indictors which will show how far the country is from meeting the aforementioned targets. The index of mortality which is commonly used is the "expectation of life at birth". This measure is the average number of years that a newly born baby expects to live if the current risks of dying at each age are to remain unchanged. Looked at from a slightly different perspective, life expectancy at birth can be defined as the average age at death in a population or simply the number of years that a person born and living under particular socio-economic and mortality conditions expects to live. It is a useful measure of both mortality and health conditions in a population.

Using information of the number of deaths during the 12 months preceding the 2011 population and housing censuses, life tables were constructed for at national, cities/ towns, urban villages, rural localities and different districts in Botswana. The estimates from the 2011 Population and Housing Census indicate that the targets stipulated in the Revised National Population Policy have been met.

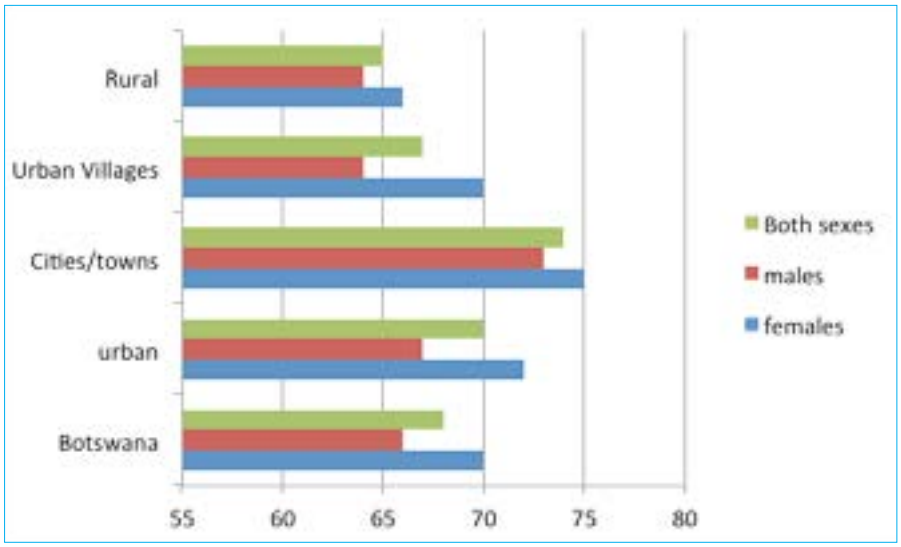
The 2011 census shows that nationally the average life expectancy at birth for both sexes stands at 68 years, for females it is 70 years and 66 years for males showing a gap of 4 years. The sex differentials in life expectancy at birth are more pronounced in urban areas, females expects to live for 72 years while males expects to live for 67 years, showing a gap of 5 years. In cities/ towns life expectancy at birth is 74 years, the gap between female life expectancy and male life expectancy in only 2 years, 75 for females and 73 for males.

In urban villages female's life expectancy is estimated at 67 years, 70 for females and 64 for males, showing a gap of 6 years. In the rural areas life expectancy at birth is estimated at 65 years, at birth males expects to live for 64 years while a female expects to live for 66 years showing a gap of 2 years. (See Table1 and Chart1 and tables A1 to A50 in the appendix)

Table 1 Life Expectancy at Birth by sex for National and Type of residence

	females	males	Both sexes
Botswana	70	66	68
Urban	72	67	70
Cities/towns	75	73	74
Urban Villages	70	64	67
Rural	66	64	65

Chart 1. Life Expectancy at Birth by sex for National and Type of residence



Adult Mortality Levels by District

According to the 2001 Census data life expectancy at birth for both sexes combined was 63.9 and 68.9 years in Gaborone and the South-East district respectively all other districts in Botswana were experiencing life expectancy at birth below sixty. According to the 2001 data life expectancy at birth was worse for North-East, Central, Ngamiland, and Southern Districts were a newly born baby expected to live for less than 50 years. Estimates of life expectancy at birth were 45, 46, 47, 48 years respectively for the aforementioned districts.

Table 2 below shows some districts and sub-districts ranked by the level of life expectancy at birth. The level life expectancy at birth for both sexes combined is now 70 years for four districts in Botswana. The estimated life expectancy is as high as 76 years in Gaborone followed by the South-East with Life expectancy at birth of 74 years, Francistown with 72 years and Kweneng East with 71 years.
All districts and sub-districts were data permitted recorded estimates of life at birth expectancy at birth of above 60 years; a drastic improvement from 2001 when only two districts (Gaborone and the South-East) had life at birth expectancy of more than 60 years. Only two districts recorded estimated life expectancy at birth of less than 65 years; Central Tutume (64), Central Mahalapye (63) and Ngamiland East (61)

Generally females expect to live longer than their male counterparts in all districts with the exception of Kweneng West, where males expect to live longer than females.

Table 2 Life expectancy at birth by sex and district

District	males (2011)	females (2011)	both sexes
Gaborone	75	77	76
South East	71	76	74
Francistown	71	73	72
Kweneng East	68	73	71
Lobatse	67	70	69
Selebi Phikwe	68	69	69
North East	66	69	68
Ngamiland West	64	70	67
Kgalagadi	66	68	67
Kgatleng	63	70	67
Central Serowe/ Palapye	65	68	67
Kweneng West	70	63	67
Central Boteti	63	68	66
Central Bobonong	61	69	65
Borolong	63	67	65
Ngwaketse	62	67	65
Central Tutume	61	67	64
Central Mahalapye	60	65	63
Ngamiland East	59	62	61

Concluding Remarks

Substantial regional differences in mortality have been shown by the both the 2001 and 2011 census results, with relatively low mortality in Gaborone and the South-East district. The differentials in mortality between districts are usually associated with differing levels of social and economic development between districts, differentials in individual living standards and their socio-economic characteristics but it appears that the HIV/ AIDS epidemic that distorted everything has now been contained.

The derived parameters of mortality can give great encouragement and aspirations to planners and policy makers for further efforts in the reduction of mortality levels because it is clear that all the mortality indicators targets set in 2010 have been met. These findings are sufficient indicators of the health transition in Botswana which shows that with proper and intervention programmes the HIV/AIDS related mortality can be contained. The question is; how long can AIDS related mortality without a serious reduction on HIV/AIDS incidence and prevalence be contained? The other question which should bother all the stakeholders' is "Is Botswana likely to experience a big BOOM in mortality when ARVs ceased to safe lives of those who are on them"?

The other persistent character of mortality patterns in Botswana is the gap in life expectancy between males and females in favour of the latter. It is therefore necessary that studies be carried out to determine what should be done to improve the survival of men in order to bring them at par with that of females. The mechanisms that affect the differentials in mortality by sex and districts are not quite clear and they need to be investigated, using both macro and micro level approaches.

Table A1:Botswana 2011 both sexes combined

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.017	1723	98453	6808555	68.1
1	98277	0.011	1085	390392	6710102	68.3
5	97192	0.005	473	484777	6319710	65.0
10	96719	0.004	370	482669	5834933	60.3
15	96349	0.006	579	480432	5352264	55.6
20	95770	0.012	1143	476271	4871833	50.9
25	94626	0.020	1888	468774	4395562	46.5
30	92738	0.031	2869	456917	3926788	42.3
35	89869	0.041	3677	440388	3469871	38.6
40	86192	0.045	3911	421221	3029482	35.1
45	82281	0.047	3858	401774	2608262	31.7
50	78422	0.051	3986	382261	2206487	28.1
55	74436	0.059	4419	361297	1824226	24.5
60	70018	0.068	4756	338537	1462929	20.9
65	65262	0.094	6159	311292	1124393	17.2
70	59103	0.109	6448	279791	813100	13.8
75	52655	0.156	8188	244569	533309	10.1
80	44467	1	44467	288740	288740	6.5

Table A2:Botswana females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.017	1675	98493	7009036	70.1
1	98324.88	0.011	1054	390660	6910543	70.3
5	97270.48	0.005	469	485181	6519883	67.0
10	96801.77	0.004	366	483093	6034702	62.3
15	96435.48	0.006	586	480868	5551609	57.6
20	95849.88	0.013	1294	476350	5070742	52.9
25	94556.21	0.021	2032	468051	4594391	48.6
30	92524.42	0.032	2950	455589	4126340	44.6
35	89574.61	0.040	3544	439061	3670751	41.0
40	86031.04	0.037	3158	422210	3231690	37.6
45	82872.61	0.040	3276	406174	2809481	33.9
50	79596.13	0.040	3174	390056	2403306	30.2
55	76422	0.044	3326	373906	2013250	26.3
60	73096.26	0.051	3717	356505	1639345	22.4
65	69379.73	0.072	4968	334858	1282839	18.5
70	64412.15	0.084	5385	308997	947981	14.7
75	59027.58	0.119	7032	279348	638984	10.8
80	51995.28	1	51995	359636	359636	6.9

Table A3: Botswana males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.018	1768	98397	6585483	65.9
1	98231.64	0.011	1116	390247	6487086	66.0
5	97115.49	0.005	477	484384	6096838	62.8
10	96638	0.004	374	482255	5612455	58.1
15	96263.9	0.006	572	480004	5130200	53.3
20	95691.48	0.010	984	476224	4650196	48.6
25	94707.19	0.018	1735	469574	4173972	44.1
30	92971.71	0.030	2788	458346	3704398	39.8
35	90184.15	0.042	3809	441811	3246051	36.0
40	86375.16	0.054	4689	420318	2804240	32.5
45	81686.47	0.055	4529	397164	2383922	29.2
50	77157.16	0.064	4950	373643	1986758	25.7
55	72207.42	0.078	5655	347088	1613115	22.3
60	66552.72	0.087	5822	318556	1266028	19.0
65	60730.41	0.122	7438	285455	947472	15.6
70	53292.69	0.143	7596	247904	662017	12.4
75	45696.3	0.210	9590	206254	414113	9.1
80	36105.84	1	36106	207859	207859	5.8

Table A4: Rural both sexes

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.021	2072	98160	6491339	64.9
1	97927.51	0.012	1141	388845	6393179	65.3
5	96786.1	0.006	575	482493	6004334	62.0
10	96211.05	0.004	428	479985	5521841	57.4
15	95783.05	0.009	833	477077	5041856	52.6
20	94950.19	0.018	1741	470874	4564779	48.1
25	93209.56	0.033	3074	458961	4093905	43.9
30	90135.22	0.049	4429	440046	3634945	40.3
35	85706.33	0.058	4978	416280	3194899	37.3
40	80728.07	0.066	5335	390083	2778619	34.4
45	75393	0.055	4122	366404	2388536	31.7
50	71270.5	0.055	3943	346488	2022132	28.4
55	67327.4	0.061	4085	326485	1675643	24.9
60	63242.69	0.067	4233	305823	1349158	21.3
65	59009.28	0.086	5055	282695	1043335	17.7
70	53954.72	0.103	5560	256198	760640	14.1
75	48394.35	0.138	6671	226762	504442	10.4
80	41723.45	1	41723	277680	277680	6.7

Table A5: Rural females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.021	2073	98159	6612837	66.1
1	97926.9	0.011	1039	389099	6514678	66.5
5	96887.42	0.006	566	483023	6125579	63.2
10	96321.64	0.005	457	480466	5642556	58.6
15	95864.83	0.010	971	477227	5162090	53.8
20	94893.77	0.025	2335	469270	4684863	49.4
25	92558.51	0.039	3614	454297	4215593	45.5
30	88944.64	0.054	4775	433127	3761296	42.3
35	84169.96	0.061	5100	407934	3328170	39.5
40	79069.69	0.052	4116	384732	2920235	36.9
45	74953.6	0.046	3480	365785	2535503	33.8
50	71473.5	0.039	2789	350319	2169719	30.4
55	68684.13	0.044	3044	335943	1819399	26.5
60	65640.36	0.052	3434	319851	1483456	22.6
65	62206.64	0.068	4208	300877	1163605	18.7
70	57999.14	0.089	5179	277452	862728	14.9
75	52819.91	0.116	6135	250167	585276	11.1
80	46684.64	1	46685	335109	335109	7.2

Table A6: Rural males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.020715	2071	98140	6351339	63.5
1	97928.54	0.012675	1241	388723	6253199	63.9
5	96687.27	0.006039	584	481977	5864476	60.7
10	96103.35	0.004168	401	479515	5382499	56.0
15	95702.79	0.007479	716	476888	4902984	51.2
20	94987	0.012653	1202	472252	4426096	46.6
25	93785.11	0.027481	2577	463143	3953844	42.2
30	91207.78	0.045109	4114	446296	3490700	38.3
35	87093.5	0.055937	4872	423766	3044404	35.0
40	82221.75	0.079478	6535	394737	2620638	31.9
45	75686.92	0.063993	4843	366134	2225901	29.4
50	70843.46	0.075161	5325	340985	1859767	26.3
55	65518.77	0.079723	5223	314450	1518783	23.2
60	60295.45	0.081783	4931	289272	1204332	20.0
65	55364.31	0.10522	5825	262458	915060	16.5
70	49538.86	0.118225	5857	233328	652602	13.2
75	43682.13	0.165346	7223	201936	419274	9.6
80	36459.45	1	36459	217338	217338	6.0

Table A7: Urban both sexes combined

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.014875	1488	98653	6947425	69.5
1	98512.47	0.010586	1043	391443	6848771	69.5
5	97469.61	0.004111	401	486346	6457329	66.2
10	97068.9	0.003422	332	484514	5970983	61.5
15	96736.69	0.004771	462	482625	5486469	56.7
20	96275.13	0.009262	892	479351	5003844	52.0
25	95383.4	0.014594	1392	473702	4524493	47.4
30	93991.38	0.023598	2218	464776	4050791	43.1
35	91773.37	0.033374	3063	451429	3586015	39.1
40	88710.53	0.035381	3139	435820	3134585	35.3
45	85571.87	0.042525	3639	418930	2698765	31.5
50	81932.93	0.047899	3924	400038	2279835	27.8
55	78008.45	0.058344	4551	378904	1879796	24.1
60	73457.13	0.068864	5059	355116	1500893	20.4
65	68398.55	0.103374	7071	324794	1145777	16.8
70	61327.95	0.11558	7088	289376	820983	13.4
75	54239.65	0.17432	9455	249555	531607	9.8
80	44784.6	1	44785	282052	282052	6.3

Table A8: Urban females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.014054	1405	98724	7179697	71.8
1	98594.59	0.010805	1065	391716	7080973	71.8
5	97529.27	0.004113	401	486643	6689256	68.6
10	97128.1	0.003174	308	484870	6202613	63.9
15	96819.79	0.004431	429	483122	5717743	59.1
20	96390.82	0.009339	900	479930	5234621	54.3
25	95490.58	0.015	1432	474146	4754691	49.8
30	94058.22	0.023914	2249	464992	4280545	45.5
35	91808.9	0.031187	2863	451980	3815553	41.6
40	88945.65	0.029704	2642	438166	3363573	37.8
45	86303.59	0.03575	3085	423960	2925407	33.9
50	83218.26	0.040432	3365	407752	2501447	30.1
55	79853.57	0.042913	3427	390787	2093695	26.2
60	76426.84	0.049591	3790	373035	1702908	22.3
65	72636.74	0.075236	5465	349881	1329874	18.3
70	67171.87	0.078363	5264	323071	979992	14.6
75	61908.09	0.121907	7547	292784	656922	10.6
80	54361.06	1	54361	364138	364138	6.7

Table A9: Urban males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.015666	1567	98571	6665016	66.7
1	98433.44	0.010374	1021	391289	6566445	66.7
5	97412.28	0.004109	400	486061	6175156	63.4
10	97012.02	0.003672	356	484170	5689095	58.6
15	96655.78	0.005145	497	482130	5204926	53.9
20	96158.53	0.009175	882	478770	4722796	49.1
25	95276.31	0.014138	1347	473269	4244026	44.5
30	93929.31	0.023257	2185	464589	3770757	40.1
35	91744.79	0.035635	3269	450901	3306167	36.0
40	88475.49	0.041428	3665	433422	2855266	32.3
45	84810.1	0.050533	4286	413535	2421844	28.6
50	80524.41	0.05698	4588	391457	2008309	24.9
55	75936.09	0.077191	5862	365460	1616852	21.3
60	70074.54	0.093656	6563	334587	1251393	17.9
65	63511.65	0.143043	9085	295525	916806	14.4
70	54426.78	0.174713	9509	248976	621280	11.4
75	44917.71	0.268234	12048	196141	372304	8.3
80	32869.27	1	32869	176164	176164	5.4

Table A10: Urban villages both sexes total

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.016884	1688	98482	6709248	67.1
1	98311.55	0.010709	1053	390611	6610766	67.2
5	97258.77	0.004164	405	485281	6220156	64.0
10	96853.75	0.003516	341	483417	5734874	59.2
15	96513.2	0.005783	558	481313	5251457	54.4
20	95955.11	0.012074	1159	477164	4770144	49.7
25	94796.57	0.019145	1815	469774	4292980	45.3
30	92981.65	0.029626	2755	458483	3823206	41.1
35	90226.95	0.044816	4044	441367	3364724	37.3
40	86183.32	0.048217	4156	420598	2923356	33.9
45	82027.81	0.053401	4380	399320	2502758	30.5
50	77647.48	0.06174	4794	376399	2103438	27.1
55	72853.5	0.069631	5073	351634	1727039	23.7
60	67780.66	0.074254	5033	326625	1375405	20.3
65	62747.64	0.106562	6686	297372	1048781	16.7
70	56061.15	0.116922	6555	264328	751409	13.4
75	49506.35	0.178475	8836	227228	487081	9.8
80	40670.72	1	40671	259853	259853	6.4

Table A11: Urban village females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.015956	1596	98561	7001195	70.0
1	98404.36	0.011293	1111	390837	6902634	70.1
5	97293.1	0.004176	406	485450	6511797	66.9
10	96886.76	0.003295	319	483636	6026347	62.2
15	96567.5	0.005468	528	481662	5542712	57.4
20	96039.42	0.01239	1190	477545	5061049	52.7
25	94849.48	0.020453	1940	469730	4583505	48.3
30	92909.48	0.029166	2710	458143	4113774	44.3
35	90199.65	0.041325	3728	441809	3655632	40.5
40	86472.13	0.037313	3227	424202	3213823	37.2
45	83245.59	0.038902	3238	408281	2789621	33.5
50	80007.14	0.050056	4005	390113	2381340	29.8
55	76002.3	0.047741	3628	370880	1991227	26.2
60	72373.87	0.05094	3687	352929	1620348	22.4
65	68687.17	0.074987	5151	330831	1267418	18.5
70	63536.5	0.075753	4813	306028	936587	14.7
75	58723.41	0.125465	7368	277239	630559	10.7
80	51355.68	1	51356	353320	353320	6.9

Table A12: Urban village males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.017763	1776	98390	6355611	63.6
1	98223.69	0.010138	996	390504	6257221	63.7
5	97227.9	0.004152	404	485130	5866717	60.3
10	96824.19	0.003737	362	483216	5381587	55.6
15	96462.33	0.006122	591	480975	4898370	50.8
20	95871.75	0.011707	1122	476796	4417396	46.1
25	94749.42	0.017617	1669	469894	3940600	41.6
30	93080.23	0.030146	2806	458953	3470706	37.3
35	90274.26	0.048628	4390	440964	3011753	33.4
40	85884.41	0.060945	5234	416651	2570789	29.9
45	80650.21	0.072576	5853	388736	2154138	26.7
50	74796.91	0.077395	5789	359715	1765402	23.6
55	69008.03	0.099457	6863	328068	1405687	20.4
60	62144.69	0.107038	6652	294431	1077619	17.3
65	55492.86	0.154577	8578	256485	783189	14.1
70	46914.96	0.186112	8731	213165	526703	11.2
75	38183.52	0.275567	10522	165890	313538	8.2
80	27661.41	1	27661	147648	147648	5.3

Table A13: Cities and Towns both sexes

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.009913	991	99088	7393438	73.9
1	99008.71	0.010275	1017	393500	7294350	73.7
5	97991.43	0.003974	389	488984	6900851	70.4
10	97602.05	0.003176	310	487235	6411867	65.7
15	97292.05	0.002349	228	485911	5924632	60.9
20	97063.56	0.005081	493	484210	5438721	56.0
25	96570.37	0.007993	772	481094	4954511	51.3
30	95798.52	0.014928	1430	475630	4473417	46.7
35	94368.47	0.016753	1581	467906	3997787	42.4
40	92787.5	0.016193	1503	460283	3529881	38.0
45	91284.96	0.023879	2180	451073	3069598	33.6
50	89105.2	0.02103	1874	440939	2618524	29.4
55	87231.3	0.031921	2785	429697	2177585	25.0
60	84446.78	0.052551	4438	412029	1747888	20.7
65	80009.02	0.090345	7228	382822	1335860	16.7
70	72780.61	0.108212	7876	344666	953037	13.1
75	64904.91	0.146085	9482	303413	608372	9.4
80	55423.25	1	55423	304958	304958	5.5

Table A14: Cities and Towns females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.009484	948	99126	7470031	74.7
1	99051.62	0.009565	947	393846	7370905	74.4
5	98104.16	0.003951	388	489552	6977059	71.1
10	97716.51	0.002859	279	487884	6487508	66.4
15	97437.09	0.001993	194	486720	5999624	61.6
20	97242.89	0.004685	456	485190	5512904	56.7
25	96787.31	0.006721	651	482475	5027714	51.9
30	96136.76	0.015941	1532	477110	4545239	47.3
35	94604.29	0.015448	1461	469378	4068129	43.0
40	93142.83	0.016993	1583	461962	3598751	38.6
45	91560.04	0.029513	2702	451079	3136790	34.3
50	88857.85	0.019152	1702	440021	2685710	30.2
55	87156.01	0.029521	2573	429777	2245690	25.8
60	84583.07	0.044789	3788	414141	1815913	21.5
65	80794.67	0.076433	6175	389331	1401771	17.3
70	74619.26	0.094851	7078	355457	1012440	13.6
75	67541.58	0.096204	6498	323496	656983	9.7
80	61043.81	1	61044	333487	333487	5.5

Table A15: Cities and towns males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.010343	1034	99040	7298205	73.0
1	98965.74	0.010972	1086	393281	7199165	72.7
5	97879.84	0.003996	391	488421	6805884	69.5
10	97488.71	0.003499	341	486591	6317463	64.8
15	97147.6	0.00275	267	485095	5830872	60.0
20	96880.47	0.005516	534	483202	5345777	55.2
25	96346.04	0.009342	900	479651	4862575	50.5
30	95446.01	0.013906	1327	474087	4382924	45.9
35	94118.78	0.017999	1694	466383	3908838	41.5
40	92424.72	0.015449	1428	458551	3442454	37.2
45	90996.82	0.018377	1672	450929	2983903	32.8
50	89324.53	0.022929	2048	441751	2532974	28.4
55	87276.43	0.034195	2984	429489	2091224	24.0
60	84291.99	0.060203	5075	409864	1661735	19.7
65	79217.32	0.104824	8304	376252	1251871	15.8
70	70913.44	0.123959	8790	333593	875619	12.3
75	62123.1	0.223081	13858	279149	542026	8.7
80	48264.63	1	48265	262877	262877	5.4

Table A16:Gaborone males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.006263	626	99412	7471987	74.7
1	99374	0.012704	1262	394508	7372575	74.2
5	98111	0.00449	441	489455	6978067	71.1
10	97671	0.003992	390	487379	6488612	66.4
15	97281	0.003494	340	485554	6001233	61.7
20	96941	0.003992	387	483793	5515679	56.9
25	96554	0.006978	674	481254	5031886	52.1
30	95880	0.013417	1286	476445	4550632	47.5
35	94594	0.018821	1780	468504	4074187	43.1
40	92813	0.013408	1244	460888	3605683	38.8
45	91569	0.014892	1364	454553	3144795	34.3
50	90205	0.020794	1876	446592	2690242	29.8
55	88330	0.029589	2614	435591	2243649	25.4
60	85716	0.052177	4472	417984	1808058	21.1
65	81244	0.06068	4930	394392	1390074	17.1
70	76314	0.094355	7201	365511	995681	13.0
75	69113	0.247036	17073	307077	630170	9.1
80	52040	1	52040	323093	323093	6.2

Table A17: Gaborone females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.006263	626	99417	7725635	77.3
1	99374	0.009938	988	395039	7626218	76.7
5	98386	0.002996	295	491194	7231179	73.5
10	98091	0.002996	294	489722	6739985	68.7
15	97798	0.001	98	488749	6250263	63.9
20	97700	0.003993	390	487661	5761514	59.0
25	97310	0.005486	534	485348	5273852	54.2
30	96776	0.013414	1298	480813	4788505	49.5
35	95478	0.01094	1045	474787	4307691	45.1
40	94433	0.014404	1360	469036	3832904	40.6
45	93073	0.029075	2706	458655	3363868	36.1
50	90367	0.016854	1523	447950	2905212	32.1
55	88844	0.023734	2109	439296	2457262	27.7
60	86735	0.03879	3364	425885	2017966	23.3
65	83371	0.061151	5098	404619	1592081	19.1
70	78272	0.070013	5480	377935	1187462	15.2
75	72792	0.088864	6469	349655	809527	11.1
80	66324	1	66324	459872	459872	6.9

Table A18: Francistown males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.010399	1040	99035	7075386	70.8
1	98960	0.007169	709	394153	6976351	70.5
5	98251	0.003494	343	490395	6582198	67.0
10	97907	0.00449	440	488438	6091803	62.2
15	97468	0.001998	195	486870	5603365	57.5
20	97273	0.00698	679	484941	5116495	52.6
25	96594	0.013907	1343	479755	4631554	47.9
30	95251	0.011931	1136	473525	4151799	43.6
35	94114	0.022749	2141	465438	3678274	39.1
40	91973	0.020289	1866	455141	3212836	34.9
45	90107	0.020295	1829	446039	2757696	30.6
50	88278	0.025693	2268	436172	2311656	26.2
55	86010	0.054626	4698	419500	1875484	21.8
60	81312	0.094352	7672	389440	1455984	17.9
65	73640	0.219585	16170	326672	1066543	14.5
70	57470	0.109788	6310	270794	739871	12.9
75	51160	0.160129	8192	237456	469077	9.2
80	42968	1	42968	231620	231620	5.4

Table A19: Francistown females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.010988	1099	98992	7269464	72.7
1	98901	0.010333	1022	393056	7170471	72.5
5	97879	0.006479	634	487811	6777415	69.2
10	97245	0.00449	437	485134	6289604	64.7
15	96808	0.005982	579	482628	5804471	60.0
20	96229	0.005983	576	479754	5321843	55.3
25	95654	0.008964	857	476353	4842088	50.6
30	94796	0.021781	2065	469273	4365735	46.1
35	92731	0.026641	2470	457498	3896463	42.0
40	90261	0.023712	2140	445898	3438965	38.1
45	88121	0.024696	2176	435248	2993067	34.0
50	85944	0.030056	2583	423463	2557819	29.8
55	83361	0.037759	3148	408782	2134355	25.6
60	80214	0.025676	2060	396069	1725574	21.5
65	78154	0.056072	4382	381067	1329505	17.0
70	73772	0.109205	8056	350271	948438	12.9
75	65716	0.16881	11093	303929	598167	9.1
80	54622	1	54622	294238	294238	5.4

Table A20: Lobatse males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.01742	1742	98419	6717970	67.2
1	98258	0.024825	2439	387179	6619551	67.4
5	95819	0.007472	716	477304	6232372	65.0
10	95103	0.003494	332	474683	5755068	60.5
15	94771	0.003495	331	473133	5280385	55.7
20	94439	0.016876	1594	468754	4807251	50.9
25	92846	0.018334	1702	460066	4338498	46.7
30	91143	0.022739	2073	450549	3878431	42.6
35	89071	0.019797	1763	440841	3427882	38.5
40	87307	0.017853	1559	432980	2987042	34.2
45	85749	0.05733	4916	416606	2554062	29.8
50	80833	0.023227	1877	399465	2137456	26.4
55	78955	0.05937	4688	384228	1737991	22.0
60	74268	0.084327	6263	355838	1353763	18.2
65	68005	0.079077	5378	327905	997926	14.7
70	62627	0.291316	18244	269886	670021	10.7
75	44383	0.259095	11499	191657	400135	9.0
80	32884	1	32884	208478	208478	6.3

TableA20: Lobatse both sexes

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.020036	2004	98217	6870363	68.7
1	97996.37	0.01819	1783	387514	6772146	69.1
5	96213.81	0.003992	384	480109	6384632	66.4
10	95829.72	0.001998	191	478670	5904523	61.6
15	95638.26	0.001499	143	477881	5425853	56.7
20	95494.89	0.00996	951	475562	4947972	51.8
25	94543.77	0.015878	1501	469103	4472411	47.3
30	93042.64	0.015877	1477	461648	4003308	43.0
35	91565.37	0.0247	2262	452330	3541660	38.7
40	89303.71	0.023244	2076	441661	3089330	34.6
45	87227.91	0.054974	4795	424362	2647669	30.4
50	82432.61	0.031985	2637	405638	2223306	27.0
55	79795.97	0.06592	5260	386778	1817669	22.8
60	74535.79	0.084945	6331	357708	1430891	19.2
65	68204.36	0.144627	9864	317176	1073183	15.7
70	58340.2	0.164194	9579	266827	756007	13.0
75	48761.1	0.131243	6400	228556	489180	10.0
80	42361.54	1	42362	260624	260624	6.2

Table A21: Selebi Phikwe males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.024841	2484	97799	6756817	67.6
1	97516	0.010335	1008	387623	6659018	68.3
5	96508	0.001998	193	482058	6271395	65.0
10	96315	0.001998	192	481095	5789336	60.1
15	96123	0.001998	192	480192	5308241	55.2
20	95931	0.00847	812	477936	4828050	50.3
25	95118	0.012922	1229	472743	4350113	45.7
30	93889	0.020775	1951	464425	3877370	41.3
35	91939	0.009455	869	457512	3412945	37.1
40	91069	0.020303	1849	450965	2955433	32.5
45	89220	0.018334	1636	442100	2504468	28.1
50	87585	0.027125	2376	431956	2062369	23.5
55	85209	0.018331	1562	422155	1630413	19.1
60	83647	0.029629	2478	413063	1208257	14.4
65	81168	0.13451	10918	381747	795194	9.8
70	70250	0.153549	10787	330887	413448	5.9
75	59464	1	59464	82561	82561	1.4

Table A22:Selebi Phikwe females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.012652	1265	98846	6909961	69.1
1	98735	0.006375	629	393368	6811115	69.0
5	98105	0.006479	636	488938	6417747	65.4
10	97470	0.001998	195	486862	5928809	60.8
15	97275	0.001998	194	485933	5441947	55.9
20	97081	0.005984	581	484109	4956014	51.1
25	96500	0.007476	721	480927	4471904	46.3
30	95778	0.028115	2693	472414	3990977	41.7
35	93086	0.012419	1156	462428	3518563	37.8
40	91929	0.01834	1686	455663	3056135	33.2
45	90244	0.024664	2226	445145	2600472	28.8
50	88018	0.006479	570	438641	2155327	24.5
55	87448	0.020824	1821	433566	1716686	19.6
60	85627	0.066902	5729	415117	1283120	15.0
65	79898	0.069719	5570	386834	868003	10.9
70	74328	0.218231	16221	340768	481169	6.5
75	58107	1	58107	140401	140401	2.4

Table A23: Ngwaketse males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.018195	1820	98353	6233021	62.3
1	98180	0.009149	898	390564	6134668	62.5
5	97282	0.006479	630	484835	5744104	59.0
10	96652	0.001998	193	482777	5259269	54.4
15	96459	0.00698	673	480924	4776492	49.5
20	95785	0.018845	1805	475021	4295568	44.8
25	93980	0.035885	3372	461985	3820546	40.7
30	90608	0.041653	3774	444009	3358561	37.1
35	86834	0.064458	5597	420836	2914552	33.6
40	81237	0.082017	6663	389638	2493715	30.7
45	74574	0.082003	6115	357619	2104077	28.2
50	68459	0.099311	6799	325298	1746458	25.5
55	61660	0.100017	6167	292276	1421160	23.0
60	55493	0.077374	4294	266690	1128885	20.3
65	51199	0.112157	5742	242292	862195	16.8
70	45457	0.161971	7363	209167	619903	13.6
75	38094	0.185304	7059	173439	410736	10.8
80	31035	1	31035	237296	237296	7.6

Table A24:Ngwaketse females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.016647	1665	98502	6729768	67.3
1	98335	0.018191	1789	388864	6631267	67.4
5	96547	0.007472	721	480929	6242403	64.7
10	95825	0.002996	287	478408	5761473	60.1
15	95538	0.008966	857	475871	5283065	55.3
20	94682	0.018348	1737	469521	4807195	50.8
25	92944	0.032496	3020	457630	4337673	46.7
30	89924	0.040214	3616	440999	3880043	43.1
35	86308	0.060608	5231	418474	3439045	39.8
40	81077	0.045884	3720	395756	3020571	37.3
45	77357	0.043995	3403	378148	2624814	33.9
50	73953	0.042115	3115	362158	2246666	30.4
55	70839	0.062495	4427	343183	1884507	26.6
60	66412	0.050676	3365	323604	1541325	23.2
65	63046	0.06535	4120	305191	1217720	19.3
70	58926	0.07753	4569	283761	912530	15.5
75	54358	0.132962	7227	255388	628769	11.6
80	47130	1	47130	373381	373381	7.9

Table A25: Barolong males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.017614	1761	98403	6320509	63.2
1	98239	0.01859	1826	388571	6222107	63.3
5	96412	0.00449	433	480979	5833535	60.5
10	95979	0.002996	288	479178	5352556	55.8
15	95692	0.006979	668	477025	4873378	50.9
20	95024	0.016379	1556	471625	4396352	46.3
25	93468	0.024227	2264	462128	3924727	42.0
30	91203	0.044088	4021	446774	3462600	38.0
35	87182	0.068233	5949	421897	3015826	34.6
40	81234	0.098269	7983	385640	2593928	31.9
45	73251	0.059587	4365	354862	2208289	30.1
50	68886	0.066785	4601	333375	1853427	26.9
55	64285	0.106496	6846	304272	1520052	23.6
60	57439	0.080563	4627	275444	1215780	21.2
65	52812	0.104526	5520	250920	940336	17.8
70	47292	0.171031	8088	217428	689416	14.6
75	39203	0.278127	10904	168524	471987	12.0
80	28300	1	28300	303463	303463	10.7

Table A26: Barolong females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.023504	2350	97933	6710147	67.1
1	97650	0.009938	970	388159	6612214	67.7
5	96679	0.006479	626	481830	6224055	64.4
10	96053	0.002996	288	479545	5742225	59.8
15	95765	0.001499	144	478525	5262680	55.0
20	95622	0.020834	1992	474317	4784155	50.0
25	93629	0.027154	2542	462252	4309838	46.0
30	91087	0.051675	4707	444047	3847586	42.2
35	86380	0.04402	3802	422497	3403539	39.4
40	82578	0.063806	5269	399162	2981042	36.1
45	77309	0.030503	2358	380347	2581880	33.4
50	74951	0.037323	2797	368075	2201533	29.4
55	72153	0.055978	4039	351219	1833458	25.4
60	68114	0.078812	5368	327329	1482239	21.8
65	62746	0.076482	4799	301821	1154910	18.4
70	57947	0.099901	5789	275666	853089	14.7
75	52158	0.128863	6721	245301	577423	11.1
80	45437	1	45437	332122	332122	7.3

Table A27: South East males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.00981	981	99088	7098538	71.0
1	99019	0.005581	553	394763	6999450	70.7
5	98466	0.005982	589	490859	6604687	67.1
10	97877	0.00449	439	488288	6113828	62.5
15	97438	0.001998	195	486726	5625540	57.7
20	97243	0.007972	775	484509	5138814	52.8
25	96468	0.008466	817	480390	4654305	48.2
30	95651	0.013909	1330	475160	4173915	43.6
35	94321	0.01982	1869	467365	3698755	39.2
40	92451	0.04359	4030	452807	3231390	35.0
45	88421	0.044972	3976	432227	2778583	31.4
50	84445	0.051199	4323	411762	2346356	27.8
55	80121	0.072286	5792	386108	1934595	24.1
60	74330	0.058224	4328	360646	1548486	20.8
65	70002	0.066877	4682	339243	1187840	17.0
70	65320	0.166146	10853	301466	848597	13.0
75	54468	0.214415	11679	244324	547131	10.0
80	42789	1	42789	302807	302807	7.1

Table A27b: South East both sexes

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.009123	912	99158	7354485	73.5
1	99087.74	0.008356	828	394289	7255327	73.2
5	98259.74	0.003992	392	490318	6861038	69.8
10	97867.48	0.001998	196	488849	6370720	65.1
15	97671.94	0.003495	341	487604	5881872	60.2
20	97330.62	0.007971	776	484864	5394267	55.4
25	96554.84	0.008962	865	480754	4909403	50.8
30	95689.48	0.017851	1708	474482	4428650	46.3
35	93981.35	0.02177	2046	464991	3954167	42.1
40	91935.39	0.029563	2718	452975	3489177	38.0
45	89217.54	0.02713	2420	440079	3036202	34.0
50	86797.1	0.033946	2946	427014	2596123	29.9
55	83850.71	0.054535	4573	408288	2169109	25.9
60	79277.88	0.061065	4841	384212	1760820	22.2
65	74436.8	0.057395	4272	362060	1376608	18.5
70	70164.49	0.124887	8763	330665	1014548	14.5
75	61401.86	0.183135	11245	280420	683883	11.1
80	50157.03	1	50157	403463	403463	8.0

Table A28: Kweneng East males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.0147	1470	98655	6761565	67.6
1	98530	0.008358	824	392151	6662910	67.6
5	97707	0.00449	439	487436	6270759	64.2
10	97268	0.00449	437	485247	5783323	59.5
15	96831	0.006977	676	482546	5298076	54.7
20	96156	0.00797	766	478970	4815530	50.1
25	95389	0.01391	1327	473894	4336560	45.5
30	94062	0.021288	2002	465681	3862666	41.1
35	92060	0.035395	3258	452559	3396985	36.9
40	88801	0.041163	3655	435155	2944426	33.2
45	85146	0.05544	4721	414082	2509271	29.5
50	80426	0.053566	4308	391644	2095188	26.1
55	76118	0.084011	6395	365413	1703545	22.4
60	69723	0.113887	7941	329482	1338132	19.2
65	61782	0.158235	9776	284189	1008650	16.3
70	52006	0.137741	7163	242007	724461	13.9
75	44843	0.194163	8707	203430	482454	10.8
80	36136	1	36136	279024	279024	7.7

Table A29: Kweneng East females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.014019	1402	98727	7341487	73.4
1	98598	0.011517	1136	391555	7242760	73.5
5	97463	0.003494	341	486462	6851205	70.3
10	97122	0.002996	291	484883	6364744	65.5
15	96831	0.003494	338	483378	5879861	60.7
20	96493	0.007972	769	480777	5396483	55.9
25	95724	0.015392	1473	475286	4915706	51.4
30	94250	0.025682	2421	465489	4440420	47.1
35	91830	0.028582	2625	452533	3974931	43.3
40	89205	0.024693	2203	440554	3522398	39.5
45	87002	0.032483	2826	428198	3081844	35.4
50	84176	0.040193	3383	412598	2653646	31.5
55	80793	0.044976	3634	394967	2241048	27.7
60	77159	0.049274	3802	376427	1846081	23.9
65	73357	0.058765	4311	356267	1469654	20.0
70	69046	0.073332	5063	333113	1113387	16.1
75	63983	0.111537	7136	303679	780274	12.2
80	56846	1	56846	476595	476595	8.4

Table A30: Kweneng west males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.021479	2148	98076	6966832	69.7
1	97852	0.010335	1011	388970	6868756	70.2
5	96841	0.005982	579	482756	6479786	66.9
10	96262	0.001998	192	480827	5997030	62.3
15	96069	0.009461	909	478375	5516204	57.4
20	95160	0.009955	947	473656	5037829	52.9
25	94213	0.029594	2788	464688	4564173	48.4
30	91425	0.029079	2659	450604	4099485	44.8
35	88766	0.039278	3487	435817	3648881	41.1
40	85280	0.080679	6880	409538	3213064	37.7
45	78399	0.058152	4559	379924	2803525	35.8
50	73840	0.045504	3360	361297	2423601	32.8
55	70480	0.124993	8810	329946	2062305	29.3
60	61671	0.046846	2889	300938	1732359	28.1
65	58782	0.101481	5965	280057	1431421	24.4
70	52817	0.130573	6896	247183	1151364	21.8
75	45920	0.163642	7514	210490	904181	19.7
80	38406	1	38406	693691	693691.5	18.1

Table A3b: Kweneng west both sexes

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.0236	2360	97925	6795667	68.0
1	97640.01	0.008356	816	388509	6697742	68.6
5	96824.14	0.00449	435	483034	6309233	65.2
10	96389.41	0.001	96	481706	5826199	60.4
15	96293.07	0.010458	1007	479518	5344493	55.5
20	95286.08	0.015392	1467	473104	4864975	51.1
25	93819.45	0.032496	3049	461932	4391870	46.8
30	90770.7	0.033439	3035	446367	3929938	43.3
35	87735.4	0.040693	3570	430148	3483571	39.7
40	84165.17	0.061071	5140	407939	3053422	36.3
45	79025.13	0.044426	3511	385798	2645483	33.5
50	75514.37	0.032	2416	371763	2259685	29.9
55	73097.91	0.074211	5425	352252	1887922	25.8
60	67673.23	0.04925	3333	329990	1535670	22.7
65	64340.33	0.077072	4959	309929	1205680	18.7
70	59381.46	0.103097	6122	282123	895751	15.1
75	53259.4	0.139098	7408	247768	613628	11.5
80	45851.14	1	45851	365860	365860	8.0

Table A31: Kgatleng males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.024362	2436	97838	6281330	62.8
1	97564	0.015061	1469	386699	6183492	63.4
5	96094	0.005485	527	479154	5796793	60.3
10	95567	0.002996	286	477121	5317639	55.6
15	95281	0.00946	901	474423	4840518	50.8
20	94380	0.012921	1219	469032	4366095	46.3
25	93160	0.019823	1847	461667	3897063	41.8
30	91313	0.046495	4246	446912	3435396	37.6
35	87068	0.062995	5485	421913	2988484	34.3
40	81583	0.06714	5477	394062	2566571	31.5
45	76105	0.062968	4792	368630	2172508	28.5
50	71313	0.082498	5883	342046	1803878	25.3
55	65430	0.08609	5633	312936	1461832	22.3
60	59797	0.08813	5270	286409	1148896	19.2
65	54527	0.170788	9313	249668	862486	15.8
70	45215	0.145346	6572	209293	612818	13.6
75	38643	0.18053	6976	176613	403526	10.4
80	31667	1	31667	226913	226913	7.2

Table A32: Kgatleng females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.019457	1946	98265	6958672	69.6
1	98054	0.005978	586	390748	6860407	70.0
5	97468	0.005485	535	486005	6469659	66.4
10	96934	0.003494	339	483821	5983654	61.7
15	96595	0.006482	626	481610	5499833	56.9
20	95969	0.016379	1572	476318	5018223	52.3
25	94397	0.022757	2148	466996	4541905	48.1
30	92249	0.03973	3665	452470	4074909	44.2
35	88584	0.040675	3603	434112	3622439	40.9
40	84981	0.055915	4752	413189	3188327	37.5
45	80229	0.053495	4292	390165	2775138	34.6
50	75937	0.047306	3592	370336	2384973	31.4
55	72345	0.036339	2629	355264	2014637	27.8
60	69716	0.062064	4327	338037	1659373	23.8
65	65389	0.055432	3625	317952	1321336	20.2
70	61764	0.075739	4678	297962	1003384	16.2
75	57086	0.146464	8361	266277	705422	12.4
80	48725	1	48725	439146	439146	9.01267

Table A33: Central Serowe Palapye males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.022249	2225	98012	6523434	65.2
1	97775	0.01073	1049	388568	6425422	65.7
5	96726	0.005485	531	482304	6036854	62.4
10	96195	0.00449	432	479898	5554550	57.7
15	95764	0.00648	621	477361	5074653	53.0
20	95143	0.009459	900	473652	4597292	48.3
25	94243	0.017852	1682	467336	4123639	43.8
30	92561	0.024719	2288	457600	3656303	39.5
35	90273	0.054588	4928	439978	3198703	35.4
40	85345	0.067213	5736	412681	2758725	32.3
45	79609	0.079219	6306	382212	2346044	29.5
50	73302	0.075038	5500	352594	1963832	26.8
55	67802	0.080188	5437	325563	1611238	23.8
60	62365	0.099821	6225	296442	1285674	20.6
65	56139	0.111849	6279	264943	989232	17.6
70	49860	0.120095	5988	234822	724289	14.5
75	43872	0.204494	8972	198049	489467	11.2
80	34901	1	34901	291418	291418	8.3

Table A34: Central Serowe Palapye females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.018586	1859	98338	6838322	68.4
1	98141	0.008356	820	390510	6739984	68.7
5	97321	0.005982	582	485151	6349473	65.2
10	96739	0.006479	627	482129	5864322	60.6
15	96112	0.004491	432	479574	5382193	56.0
20	95681	0.017864	1709	474781	4902619	51.2
25	93972	0.028616	2689	463628	4427838	47.1
30	91283	0.045018	4109	446668	3964210	43.4
35	87173	0.0573	4995	423310	3517541	40.4
40	82178	0.047321	3889	400906	3094231	37.7
45	78289	0.045921	3595	382462	2693325	34.4
50	74694	0.052098	3891	363681	2310863	30.9
55	70803	0.047327	3351	345448	1947182	27.5
60	67452	0.044049	2971	330131	1601734	23.7
65	64481	0.082588	5325	309612	1271603	19.7
70	59155	0.082049	4854	283840	961991	16.3
75	54302	0.117288	6369	256812	678151	12.5
80	47933	1	47933	421339	421339	8.8

Table A35: Central Mahalapye males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.019839	1984	98214	6043206	60.4
1	98016	0.011125	1090	389440	5944993	60.7
5	96926	0.006976	676	482938	5555553	57.3
10	96250	0.003494	336	480407	5072615	52.7
15	95913	0.007972	765	477913	4592208	47.9
20	95149	0.017857	1699	471968	4114295	43.2
25	93450	0.031051	2902	460585	3642327	39.0
30	90548	0.049801	4509	442100	3181742	35.1
35	86038	0.066366	5710	416792	2739643	31.8
40	80328	0.114989	9237	378562	2322851	28.9
45	71091	0.084218	5987	340180	1944289	27.3
50	65104	0.107374	6990	307951	1604109	24.6
55	58114	0.098404	5719	276263	1296158	22.3
60	52395	0.1296	6790	245142	1019895	19.5
65	45605	0.140308	6399	211878	774753	17.0
70	39206	0.154799	6069	181166	562875	14.4
75	33137	0.238007	7887	146323	381709	11.5
80	25250	1	25250	235386	235386	9.3

Table A36: Central Mahalapye females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.021965	2197	98058	6467501	64.7
1	97803	0.012304	1203	388191	6369443	65.1
5	96600	0.003992	386	482036	5981251	61.9
10	96214	0.006479	623	479514	5499215	57.2
15	95591	0.008468	809	476175	5019701	52.5
20	94782	0.027669	2622	468300	4543526	47.9
25	92159	0.049782	4588	449792	4075226	44.2
30	87571	0.049282	4316	427293	3625433	41.4
35	83256	0.070022	5830	402048	3198141	38.4
40	77426	0.07446	5765	371944	2796093	36.1
45	71661	0.043471	3115	350021	2424149	33.8
50	68546	0.038724	2654	335996	2074128	30.3
55	65891	0.039715	2617	323074	1738132	26.4
60	63274	0.056005	3544	308145	1415058	22.4
65	59731	0.101699	6075	283858	1106913	18.5
70	53656	0.092474	4962	255763	823055	15.3
75	48694	0.110554	5383	231046	567292	11.7
80	43311	1	43311	336246	336246	7.8

Table A37: Central Bobonong males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.019936	1994	98205	6119188	61.2
1	98006	0.011914	1168	389215	6020983	61.4
5	96839	0.003494	338	483348	5631768	58.2
10	96500	0.00449	433	481419	5148420	53.4
15	96067	0.003494	336	479562	4667001	48.6
20	95731	0.011444	1096	476317	4187439	43.7
25	94636	0.020321	1923	469040	3711122	39.2
30	92713	0.061749	5725	450783	3242082	35.0
35	86988	0.080654	7016	417615	2791299	32.1
40	79972	0.083436	6673	383478	2373685	29.7
45	73299	0.116814	8562	345259	1990207	27.2
50	64737	0.115079	7450	304076	1644947	25.4
55	57287	0.080398	4606	274152	1340871	23.4
60	52681	0.062996	3319	255287	1066719	20.2
65	49363	0.116503	5751	232829	811432	16.4
70	43612	0.109354	4769	206455	578603	13.3
75	38843	0.195387	7589	176908	372147	9.6
80	31253	1	31253	195239	195239	6.2

Table A38: Central Bobonong females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.020036	2004	98217	6896600	69.0
1	97996	0.008752	858	389834	6798383	69.4
5	97139	0.003494	339	484845	6408549	66.0
10	96799	0.002497	242	483392	5923703	61.2
15	96558	0.007973	770	481143	5440311	56.3
20	95788	0.014409	1380	475936	4959168	51.8
25	94408	0.038332	3619	463957	4483232	47.5
30	90789	0.055021	4995	442059	4019275	44.3
35	85793	0.075009	6435	412519	3577215	41.7
40	79358	0.049177	3903	386399	3164696	39.9
45	75456	0.03872	2922	369828	2778297	36.8
50	72534	0.04208	3052	354907	2408469	33.2
55	69482	0.034381	2389	341262	2053562	29.6
60	67093	0.031983	2146	330130	1712300	25.5
65	64947	0.03919	2545	318158	1382169	21.3
70	62402	0.023229	1450	308416	1064012	17.1
75	60952	0.045615	2780	298958	755596	12.4
80	58172	1	58172	456638	456638	7.8

Table A39: Central Boteti females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.01187	1187	98915	6818466	68.2
1	98813	0.005581	551	393876	6719551	68.0
5	98262	0.002996	294	490572	6325675	64.4
10	97967	0.002996	293	489103	5835103	59.6
15	97674	0.004492	439	487461	5346000	54.7
20	97235	0.023758	2310	481265	4858539	50.0
25	94925	0.028119	2669	468276	4377273	46.1
30	92256	0.044522	4107	451361	3908997	42.4
35	88148	0.045925	4048	430663	3457636	39.2
40	84100	0.05114	4301	409606	3026973	36.0
45	79799	0.04355	3475	390483	2617368	32.8
50	76324	0.070481	5379	368450	2226885	29.2
55	70945	0.063801	4526	342907	1858435	26.2
60	66418	0.047874	3180	324459	1515528	22.8
65	63239	0.111291	7038	299485	1191068	18.8
70	56201	0.107359	6034	265799	891583	15.9
75	50167	0.126016	6322	235890	625784	12.5
80	43845	1	43845	389893	389893	8.9

Table A39: Central Boteti females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.01187	1187	98915	6818466	68.2
1	98813	0.005581	551	393876	6719551	68.0
5	98262	0.002996	294	490572	6325675	64.4
10	97967	0.002996	293	489103	5835103	59.6
15	97674	0.004492	439	487461	5346000	54.7
20	97235	0.023758	2310	481265	4858539	50.0
25	94925	0.028119	2669	468276	4377273	46.1
30	92256	0.044522	4107	451361	3908997	42.4
35	88148	0.045925	4048	430663	3457636	39.2
40	84100	0.05114	4301	409606	3026973	36.0
45	79799	0.04355	3475	390483	2617368	32.8
50	76324	0.070481	5379	368450	2226885	29.2
55	70945	0.063801	4526	342907	1858435	26.2
60	66418	0.047874	3180	324459	1515528	22.8
65	63239	0.111291	7038	299485	1191068	18.8
70	56201	0.107359	6034	265799	891583	15.9
75	50167	0.126016	6322	235890	625784	12.5
80	43845	1	43845	389893	389893	8.9

Table A39b: Central Boteti both sexes

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.013824	1382	98744	6573640	65.7
1	98617.58	0.011911	1175	391536	6474896	65.7
5	97442.98	0.006479	631	485637	6083360	62.4
10	96811.65	0.001499	145	483695	5597724	57.8
15	96666.54	0.007975	771	481827	5114028	52.9
20	95895.62	0.020801	1995	474930	4632201	48.3
25	93900.91	0.023736	2229	464340	4157271	44.3
30	91672.08	0.051702	4740	447131	3692931	40.3
35	86932.48	0.048785	4241	424096	3245799	37.3
40	82691.53	0.059133	4890	400802	2821704	34.1
45	77801.74	0.036338	2827	382053	2420901	31.1
50	74974.55	0.076612	5744	361253	2038848	27.2
55	69230.63	0.077392	5358	332789	1677595	24.2
60	63872.72	0.091698	5857	305053	1344806	21.1
65	58015.71	0.120449	6988	272966	1039754	17.9
70	51027.78	0.146689	7485	236126	766788	15.0
75	43542.58	0.135464	5898	203394	530662	12.2
80	37644.14	1	37644	327267	327267	8.7

Table A40: Central Tutume males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.013824	1382	98744	6573640	65.7
1	98617.58	0.011911	1175	391536	6474896	65.7
5	97442.98	0.006479	631	485637	6083360	62.4
10	96811.65	0.001499	145	483695	5597724	57.8
15	96666.54	0.007975	771	481827	5114028	52.9
20	95895.62	0.020801	1995	474930	4632201	48.3
25	93900.91	0.023736	2229	464340	4157271	44.3
30	91672.08	0.051702	4740	447131	3692931	40.3
35	86932.48	0.048785	4241	424096	3245799	37.3
40	82691.53	0.059133	4890	400802	2821704	34.1
45	77801.74	0.036338	2827	382053	2420901	31.1
50	74974.55	0.076612	5744	361253	2038848	27.2
55	69230.63	0.077392	5358	332789	1677595	24.2
60	63872.72	0.091698	5857	305053	1344806	21.1
65	58015.71	0.120449	6988	272966	1039754	17.9
70	51027.78	0.146689	7485	236126	766788	15.0
75	43542.58	0.135464	5898	203394	530662	12.2
80	37644.14	1	37644	327267	327267	8.7

Table A41: Central Tutume females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.020229	2023	98200.97	6684077	66.84077
1	97977	0.011516	1128	389077.4	6585876	67.21855
5	96849	0.003494	338	483397.7	6196798	63.9843
10	96510	0.003992	385	481588.6	5713400	59.19987
15	96125	0.011938	1148	478158.3	5231812	54.42712
20	94978	0.021785	2069	470236	4753654	50.05031
25	92908	0.041189	3827	455570.8	4283418	46.10363
30	89082	0.049301	4392	434829.7	3827847	42.97008
35	84690	0.069444	5881	408415.1	3393017	40.06401
40	78809	0.043492	3428	385114.2	2984602	37.87147
45	75381	0.046414	3499	368289.3	2599488	34.48456
50	71882	0.056792	4082	348917.1	2231198	31.03954
55	67800	0.037271	2527	332499.1	1882281	27.76221
60	65273	0.04357	2844	319543.5	1549782	23.74304
65	62429	0.065331	4079	302116.6	1230239	19.70615
70	58351	0.060187	3512	283219.6	928122.1	15.90595
75	54839	0.102154	5602	261774.9	644902.5	11.75999
80	49237	1	49237	383127.6	383127.6	7.78134

Table A42: North East males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.018582	1858	98320	6591253	65.9
1	98142	0.006375	626	391063	6492933	66.2
5	97516	0.005485	535	486243	6101870	62.6
10	96981	0.007968	773	482974	5615627	57.9
15	96208	0.002995	288	480309	5132653	53.3
20	95920	0.006481	622	478235	4652344	48.5
25	95299	0.012931	1232	473960	4174109	43.8
30	94066	0.055145	5187	459052	3700148	39.3
35	88879	0.067209	5973	429744	3241096	36.5
40	82906	0.078062	6472	397040	2811352	33.9
45	76434	0.030521	2333	376269	2414312	31.6
50	74101	0.072915	5403	357821	2038043	27.5
55	68698	0.072169	4958	330524	1680222	24.5
60	63740	0.049322	3144	311264	1349698	21.2
65	60596	0.147492	8937	281939	1038433	17.1
70	51659	0.130117	6722	240920	756495	14.6
75	44937	0.130816	5878	210698	515575	11.5
80	39059	1	39059	304877	304877	7.8

Table A43: North East females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.009712	971	99106	6907583	69.1
1	99029	0.00796	788	394151	6808477	68.8
5	98240	0.001499	147	490834	6414327	65.3
10	98093	0.003992	392	489487	5923492	60.4
15	97702	0.007476	730	486959	5434005	55.6
20	96971	0.024724	2397	479495	4947047	51.0
25	94574	0.027634	2613	466687	4467551	47.2
30	91960	0.049336	4537	449202	4000864	43.5
35	87423	0.065741	5747	422597	3551662	40.6
40	81676	0.049729	4062	398200	3129065	38.3
45	77614	0.070393	5464	374213	2730865	35.2
50	72151	0.048209	3478	351342	2356652	32.7
55	68673	0.029549	2029	338200	2005310	29.2
60	66643	0.041646	2775	326524	1667110	25.0
65	63868	0.048849	3120	311987	1340586	21.0
70	60748	0.089438	5433	290546	1028598	16.9
75	55315	0.081739	4521	265964	738052	13.3
80	50793	1	50793	472088	472088	9.3

Table A44: Ngamiland East males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.02321	2321	97933	5924032	59.2
1	97679	0.013883	1356	387439	5826100	59.6
5	96323	0.002996	289	480893	5438661	56.5
10	96034	0.012916	1240	477071	4957768	51.6
15	94794	0.005485	520	472673	4480697	47.3
20	94274	0.013423	1265	468676	4008023	42.5
25	93009	0.033005	3070	458170	3539347	38.1
30	89939	0.049292	4433	438942	3081177	34.3
35	85506	0.051703	4421	417066	2642236	30.9
40	81085	0.101359	8219	385853	2225170	27.4
45	72866	0.10955	7982	344072	1839317	25.2
50	64884	0.105911	6872	306782	1495245	23.0
55	58012	0.100166	5811	275394	1188463	20.5
60	52201	0.116487	6081	246184	913069	17.5
65	46120	0.16653	7680	210421	666885	14.5
70	38440	0.092265	3547	183764	456464	11.9
75	34893	0.336757	11750	147991	272700	7.8
80	23143	1	23143	124709	124709	5.4

Table A45: Ngamiland East females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.027145	2714	97642	6164250	61.6
1	97286	0.014663	1427	385547	6066607	62.4
5	95859	0.012422	1191	476318	5681060	59.3
10	94668	0.006479	613	471808	5204742	55.0
15	94055	0.015396	1448	467111	4732934	50.3
20	92607	0.03007	2785	456501	4265823	46.1
25	89822	0.033929	3048	441674	3809322	42.4
30	86775	0.042626	3699	425152	3367648	38.8
35	83076	0.071827	5967	400474	2942496	35.4
40	77109	0.049697	3832	375696	2542022	33.0
45	73277	0.057331	4201	356016	2166326	29.6
50	69076	0.064846	4479	334273	1810310	26.2
55	64596	0.071906	4645	311736	1476037	22.9
60	59952	0.107373	6437	283576	1164302	19.4
65	53514	0.083801	4485	256261	880726	16.5
70	49030	0.114951	5636	231936	624465	12.7
75	43394	0.212179	9207	195483	392529	9.0
80	34187	1	34187	197046	197046	5.8

Table A46: Ngamiland West males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.030565	3057	97342	6373247	63.7
1	96943	0.017805	1726	383564	6275906	64.7
5	95217	0.006976	664	474427	5892342	61.9
10	94553	0.002497	236	472176	5417915	57.3
15	94317	0.007973	752	469994	4945739	52.4
20	93565	0.015887	1486	464509	4475745	47.8
25	92079	0.029598	2725	454221	4011236	43.6
30	89353	0.051261	4580	436221	3557015	39.8
35	84773	0.082457	6990	406405	3120794	36.8
40	77783	0.061036	4748	376792	2714389	34.9
45	73035	0.072626	5304	351274	2337597	32.0
50	67731	0.040139	2719	331544	1986323	29.3
55	65012	0.045914	2985	317549	1654779	25.5
60	62027	0.040687	2524	304064	1337230	21.6
65	59504	0.077214	4595	287159	1033166	17.4
70	54909	0.147354	8091	256047	746007	13.6
75	46818	0.266447	12475	203833	489960	10.5
80	34344	1	34344	286127	286127	8.3

Table A46: Ngamiland West Females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.02456	2456	97848	6953283	69.5
1	97544.02	0.011122	1085	387447	6855435	70.3
5	96459.17	0.004988	481	481093	6467989	67.1
10	95978.08	0.003992	383	478933	5986896	62.4
15	95594.93	0.008965	857	476116	5507963	57.6
20	94737.92	0.019821	1878	469457	5031847	53.1
25	92860.09	0.030066	2792	457688	4562390	49.1
30	90068.2	0.039227	3533	441640	4104702	45.6
35	86535.08	0.038699	3349	423906	3663062	42.3
40	83186.22	0.024205	2013	410917	3239156	38.9
45	81172.73	0.042573	3456	397218	2828239	34.8
50	77716.93	0.026156	2033	383539	2431021	31.3
55	75684.17	0.048769	3691	369102	2047481	27.1
60	71993.15	0.025681	1849	355546	1678379	23.3
65	70144.31	0.085583	6003	337255	1322834	18.9
70	64141.18	0.10124	6494	304867	985579	15.4
75	57647.51	0.138037	7957	269745	680712	11.8
80	49690.05	1	49690	410967	410967	8.3

Table A47: Kgalagadi males

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.018969	1897	98287	6582352	65.8
1	98103	0.020543	2015	387567	6484065	66.1
5	96088	0.005485	527	479121	6096498	63.4
10	95561	0.002996	286	477088	5617377	58.8
15	95274	0.01045	996	474095	5140289	54.0
20	94279	0.008467	798	469550	4666195	49.5
25	93481	0.026195	2449	462025	4196645	44.9
30	91032	0.037812	3442	447023	3734620	41.0
35	87590	0.053524	4688	426194	3287598	37.5
40	82902	0.040646	3370	405980	2861403	34.5
45	79532	0.050236	3995	387900	2455424	30.9
50	75537	0.058741	4437	366701	2067524	27.4
55	71100	0.063484	4514	344558	1700823	23.9
60	66586	0.094605	6299	316552	1356265	20.4
65	60286	0.048334	2914	294335	1039713	17.2
70	57373	0.139487	8003	267650	745378	13.0
75	49370	0.102463	5059	235284	477728	9.7
80	44311	1	44311	242444	242444	5.5

Table A48: Kgalagadi females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.020808	2081	98153	6837682	68.4
1	97919	0.00796	779	389720	6739529	68.8
5	97140	0.013903	1351	482322	6349809	65.4
10	95789	0.002996	287	478229	5867487	61.3
15	95502	0.003992	381	476580	5389258	56.4
20	95121	0.003993	380	474784	4912678	51.6
25	94741	0.020331	1926	469803	4437893	46.8
30	92815	0.039752	3690	455504	3968090	42.8
35	89125	0.050682	4517	434336	3512586	39.4
40	84608	0.044024	3725	413862	3078251	36.4
45	80884	0.065209	5274	390692	2664388	32.9
50	75609	0.031021	2345	372300	2273697	30.1
55	73264	0.087434	6406	350039	1901396	26.0
60	66858	0.030536	2042	329289	1551358	23.2
65	64816	0.117567	7620	307268	1222069	18.9
70	57196	0.150166	8589	264274	914801	16.0
75	48607	0.140191	6814	226388	650527	13.4
80	41793	1	41793	424139	424139	10.1

Table A49: Ghanzi females

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.015286	1529	98618	6466493	64.7
1	98471.42	0.019363	1907	389117	6367875	64.7
5	96564.75	0.008464	817	480780	5978757	61.9
10	95747.42	0.01094	1047	476118	5497977	57.4
15	94699.96	0.011933	1130	470843	5021858	53.0
20	93569.94	0.022753	2129	462832	4551016	48.6
25	91440.91	0.024703	2259	451770	4088183	44.7
30	89182.06	0.037271	3324	437358	3636413	40.8
35	85858.14	0.018825	1616	425346	3199055	37.3
40	84241.82	0.051263	4318	411283	2773709	32.9
45	79923.35	0.054058	4321	389235	2362427	29.6
50	75602.84	0.08917	6741	360506	1973192	26.1
55	68861.37	0.041144	2833	337291	1612685	23.4
60	66028.13	0.108526	7166	314288	1275394	19.3
65	58862.35	0.189264	11141	265250	961105	16.3
70	47721.84	0.097734	4664	226409	695855	14.6
75	43057.82	0.138477	5963	201437	469446	10.9
80	37095.29	1	37095	268009	268009	7.2

Table A50: Ghanzi both sexes

Age	l(x)	q(x,n)	d(x,n)	L(x,n)	T(x)	e(x)
0	100000	0.015869	1587	98568	6747522	67.5
1	98413.06	0.015057	1482	389945	6648954	67.6
5	96931.26	0.004988	483	483448	6259009	64.6
10	96447.82	0.007472	721	480437	5775561	59.9
15	95727.16	0.005983	573	477310	5295124	55.3
20	95154.39	0.018347	1746	471832	4817814	50.6
25	93408.61	0.019807	1850	462533	4345982	46.5
30	91558.48	0.025679	2351	452134	3883448	42.4
35	89207.38	0.032486	2898	439083	3431314	38.5
40	86309.43	0.044026	3800	422204	2992231	34.7
45	82509.59	0.043082	3555	403944	2570027	31.1
50	78954.88	0.069462	5484	380859	2166082	27.4
55	73470.51	0.041636	3059	359885	1785223	24.3
60	70411.48	0.099329	6994	336246	1425338	20.2
65	63417.57	0.152232	9654	292551	1089092	17.2
70	53763.38	0.111917	6017	253883	796541	14.8
75	47746.36	0.205859	9829	215549	542658	11.4
80	37917.34	1	37917	327109	327109	8.6

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