

Macleod W. Mwale

This chapter reports on levels, trends, and differentials in infant and child mortality based on the 2004 MDHS. The information on infant and child mortality is relevant to evaluating the progress of health programmes and in monitoring the current demographic situation. In addition, the data can be used to identify subgroups of the population that have high mortality risks.

The data for the calculation of mortality rates are collected in the reproduction section of the Women's Questionnaire. The section begins with aggregate questions about the total number of sons and daughters who live with the mother, the number who live elsewhere, and the number who have died. Then a detailed birth history is administered. For each live birth, information is obtained on the child's name, date of birth, sex, whether the birth was single or multiple, and survivorship status. For living children, information about his or her age at last birthday and whether the child resides with his or her mother is obtained. For children who had died, the respondent is asked to provide the age at death.

8.1 DEFINITIONS

The mortality rates presented in this report are defined as follows:

Neonatal mortality (NN):	the probability of dying within the first month of life
Postneonatal mortality (PNN):	the difference between infant and neonatal mortality
Infant mortality (${}_1q_0$):	the probability of dying before the first birthday
Child mortality (${}_4q_1$):	the probability of dying between the first and the fifth birthday
Under-five mortality (${}_5q_0$):	the probability of dying between birth and the fifth birthday

All rates are expressed per 1,000 live births, except for child mortality, which is expressed per 1,000 children surviving to 12 months of age.

Population censuses and demographic surveys are the major sources of mortality data in Malawi, as in most developing countries. Vital registration is another potential source of mortality data. In Malawi, however, the vital registration data are incomplete in coverage and unrepresentative of the population. Mortality data from the Health Management Information System (HMIS) is not a suitable basis for the calculation of mortality rates from a population perspective because the system is facility-based and does not include data on deaths that occur outside the facilities. Given these circumstances, birth history data from surveys provide the most reliable estimates of infant and child mortality for Malawi.

8.2 METHODOLOGICAL CONSIDERATIONS

The DHS surveys estimate mortality rates for specific time periods preceding the survey, typically five-year periods, i.e., 0-4 years, 5-9 years, and so on. The estimates are based on births and infant and child deaths reported by women age 15-49 as of the interview date. Inherent in this methodology are possible biases arising from incomplete and possibly unrepresentative data.

Since only surviving women age 15-49 are interviewed, no data are available for the children of women who have died. In this case, mortality estimates will be biased if the mortality experience of children born to surviving and nonsurviving women differs. Of course, any method of estimating childhood mortality rates that relies on retrospective reporting of events by mothers is susceptible to bias from this source. The higher the level of adult female mortality and the longer ago the time periods for which mortality is estimated, the greater is the potential for bias.

Another methodological constraint arises from the fact that women older than age 49 at the time of the survey are not interviewed and thus cannot contribute information on the exposure and deaths of their children for periods preceding the survey. This censoring of information and the resulting potential for bias becomes more severe as mortality estimates are made for time periods more distant prior to the survey. To reduce the effect of these methodological limitations, estimation of infant and child mortality in this report is restricted to the period 15 years prior to the survey.

8.3 ASSESSMENT OF DATA QUALITY

Potential data collection problems include misreporting dates of birth, misreporting age at death, and underreporting of events. It is possible to test the birth history data collected in the 2004 MDHS for these kinds of errors. The testing involves checking the internal consistency of the collected data, essentially determining if the data conform to expected patterns.

8.3.1 Misreporting Dates of Birth

The 2004 MDHS Women's Questionnaire includes two sections on maternal and child health, in which data are collected on antenatal, delivery, and postnatal care of the mother for recent births and on many health and nutrition issues for these children (see Chapters 9 and 10). These sections of the questionnaire must be administered for each birth which occurs after some cut-off date, typically set to January of the fifth calendar year prior to a survey. In the case of the 2004 MDHS, the cut-off date was January 1999.

Interviewers in DHS surveys can lessen their workload by recording births that actually occur after the cut-off date as occurring before that date. This type of birth transference occurs in many DHS surveys. In the case of the 2004 MDHS, the occurrence of birth transference can be detected by inspecting the reported number of births in each calendar year before and after the cut-off date for the health sections. Appendix Table C.4 shows the relevant data. Substantial misreporting of dates of birth is evident in terms of the calendar year pattern of reported events: 1,575 total births for 1999 and 2,143 births for 1998 (an increase of 36 percent). Misreporting of dates of birth for nonsurviving children is even more severe: 233 for 1999 and 424 for 1998 (an increase of 82 percent).

In terms of mortality analysis, what is important is the extent to which this birth transference distorts the time period in which child deaths occur. To the extent that birth transference results in a

shortfall of deaths in the five-year period prior to the survey, the time trend of mortality estimates will be distorted; mortality rates for the most recent five years before the survey will tend to be underestimated, while the estimates for the earlier five-year period will tend to be overestimated. This is the case with the MDHS 2004.¹

8.3.2 Misreporting Age at Death

Misreporting age at death can distort the age pattern of mortality. Of particular concern is the rounding of reported ages at death so that some deaths which actually occur in late infancy are reported as deaths at one year of age. This type of misreporting would tend to underestimate infant mortality rates and overestimate child mortality rates. To avoid this problem, interviewers in DHS surveys are instructed to collect age-at-death data in terms of months of age for children that die after the first month of life but before two years of age. If a respondent reports the age at death as age one, the interviewer must probe to determine the number of months that the child lived, being particularly careful to determine if the child died before or after the first birthday. This procedure of data collection is designed to minimise the misreporting of age at death and, if digit preference occurs in reported ages at death, it will be obvious from a frequency distribution of deaths by age in months.

Appendix Table C.6 shows reported deaths by age at death in months (0 through 23 months of age) and the number of deaths reported as occurring at age one year.² For the 15-year period immediately preceding the 2004 MDHS, the number of deaths reported at one year of age (422) exceeds the total number reported at 12 through 23 months of age (403), indicating that interviewers did not follow standard DHS procedures and making it impossible to assess age at death misreporting by inspection of the distribution of deaths by months of age.

However, the possibility of misreporting late infant deaths as deaths at one year of age can be indirectly assessed by comparison of the pattern of mortality between the first and the fifth birthday from the three DHS surveys conducted in Malawi (1992, 2000, and 2004). In each of the three surveys, the age pattern of mortality is similar, with infant mortality rates exceeding child mortality rates by between 10 and 24 percent. The absence of a significant change in the age pattern of mortality over the three surveys suggests that, relative to the earlier surveys, substantial age at death misreporting did not occur in the 2004 MDHS.

8.3.3 Underreporting of Deceased Children

Underreporting of the births of deceased children (and their subsequent deaths) is always a concern when collecting birth histories of women. The women may not wish to report such sad events, and interviewers may fail to record some of these events for the five-year period preceding the survey in order to avoid asking questions contained in the maternal and child health sections of the questionnaire.

When there is underreporting of births of deceased children, it is usually most pronounced in early infancy. If there is severe underreporting of neonatal deaths, the result would be an unusu-

¹The extent to which the time trend of mortality is distorted by birth transference could be investigated by more detailed analysis.

²The number of deaths at one year of age should be minimal in DHS surveys because of the DHS procedure of probing to determine age at deaths in months when a respondent initially reports one year as the age at death.

ally low ratio of neonatal deaths to all infant deaths. Appendix Table C.6 indicates that the percentage of neonatal deaths relative to all infant deaths was lower in the five-year period immediately preceding the survey (39 percent) than in the periods 5-9 years (43 percent) and 10-14 years preceding the survey (42 percent). These differences are not great, but the pattern is consistent with the under-reporting of deceased children in the five-year period immediately preceding the survey. This is especially curious since the low ratio occurs in a time period of falling infant mortality, when neonatal mortality is expected to be a greater component of infant mortality.

The assessment of data quality has found that standard DHS procedures were not followed in the collection of age-at-death data; that birth dates were misreported (especially in the case of non-surviving children), resulting in the transference of births out of the five-year period immediately preceding the survey; and that the ratio of neonatal to infant mortality is unexpectedly lower for the five-years preceding the survey than for earlier time periods. For these reasons the mortality estimates from the 2004 MDHS must be interpreted with caution.

8.4 LEVELS AND TRENDS OF EARLY CHILDHOOD MORTALITY

Table 8.1 presents estimates of childhood mortality for three five-year periods preceding the survey. For the most recent five-year period, corresponding approximately to 2000-2004, the infant mortality rate was 76 per 1,000 live births, and child mortality was 62 per 1,000, resulting in an overall under-five mortality rate of 133 per 1,000 live births.

During the 15-year period preceding the survey, the estimates indicate that under-five mortality has declined by 30 percent (from 190 deaths per 1,000 to 133 per 1,000). Infant mortality declined by 27 percent (from 104 per 1,000 to 76 per 1,000). Neonatal mortality, however, declined by 36 percent (from 42 per 1,000 to 27 per 1,000).

Years preceding the survey	Approximate calendar period	Neonatal mortality (NN) ¹	Postneonatal mortality (PNN)	Infant mortality (${}_1q_0$)	Child mortality (${}_4q_1$)	Under-five mortality (${}_5q_0$)
0-4	2000-2004	27	49	76	62	133
5-9	1995-1999	49	64	112	84	187
10-14	1990-1994	42	62	104	96	190

¹Computed as the difference between the infant and neonatal mortality rates

The fact that the largest age-specific decline in mortality occurs in the neonatal period is inconsistent with the pattern of decline usually observed in developing countries. The usual pattern is greater decline in postneonatal mortality and child mortality than in neonatal mortality, because some of the causes of neonatal mortality (preterm delivery, injury at delivery, and congenital malformations) are the last to be alleviated in a developing country. Thus it is possible that births ending in neonatal deaths were underreported for the period immediately preceding the survey, as is suggested in the data quality assessment in Section 8.3.3.

There are many causes of childhood mortality in the developing world, and their impact varies from one country to another. Similarly, increases and decreases in mortality for different age groups from infancy through early childhood can be a result of many factors. A detailed analysis of these factors is beyond the scope of this report, however, looking at the three MDHS surveys (1992, 2000, and 2004), it is apparent there has been little change in the factors typically associated with decreases in neonatal mortality. Among women giving birth in the five years preceding each survey, the percentage receiving antenatal care from a doctor or nurse/midwife was about the same (90, 91 and 93 percent, respectively), the percentage receiving tetanus toxoid during pregnancy was unchanged (85 percent in all three surveys), and the proportion of deliveries assisted by a doctor or nurse/midwife changed little (55, 56, and 57 percent) (see Chapter 9).

8.5 SOCIOECONOMIC DIFFERENTIALS IN CHILDHOOD MORTALITY

The 2004 MDHS data allows the estimation of mortality levels by socioeconomic indicators (Table 8.2). A ten-year period (approximately 1995-2004) is used to calculate the mortality estimates in order to reduce the sampling variability for the subclasses of the indicators.

Urban mortality rates are generally lower than rural rates; the under-five mortality rate is 116 per 1,000 in urban areas compared to 164 per 1,000 in rural areas. Comparing the three regions, the Northern Region has lower under-five mortality (120 per 1,000 live births), than either the Central (162 per 1,000) or the Southern Regions (164 per 1,000). Similarly, the infant mortality rate is lowest in the Northern Region (82 per 1,000), compared with either the Central Region (90 per 1,000) or the Southern Regions (98 per 1,000). These regional differences in mortality were also observed in the 1992 MDHS and the 2000 MDHS.

Table 8.2 also presents childhood mortality rates for 10 oversampled districts. Under-five mortality is lowest in Mzimba (112 per 1,000) and Machinga (130 per 1,000) and is highest in Mulanje (221 per 1,000), Kasungu (192 per 1,000), and Thyolo (187 per 1,000). For infant mortality, the lowest rates are found in Lilongwe (73 per 1,000) and Machinga (78 per 1,000), while the highest rates are also observed in Mulanje (145 per 1,000), Thyolo (119 per 1,000), and Kasungu (117 per 1,000).

The 2004 MDHS shows the same relationship between mother's education and child survival as the 2000 MDHS. For every age interval, higher levels of education are generally strongly associated with lower mortality risks. The same is true for the wealth index.

Table 8.2 Early childhood mortality rates by background characteristics

Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by background characteristic, Malawi 2004

Background characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Residence					
Urban	22	38	60	60	116
Rural	39	59	98	74	164
Region					
Northern	39	44	82	41	120
Central	34	56	90	80	162
Southern	39	59	98	73	164
District					
Blantyre	46	43	90	69	153
Kasungu	56	61	117	85	192
Machinga	33	45	78	57	130
Mangochi	45	59	104	70	167
Mzimba	38	41	80	36	112
Salima	25	59	84	76	154
Thyolo	43	76	119	77	187
Zomba	31	53	84	66	144
Lilongwe	21	52	73	78	145
Mulanje	55	89	145	89	221
Other districts	36	55	91	74	158
Education					
No education	36	65	101	89	181
Primary 1-4	39	61	101	77	170
Primary 5-8	38	46	85	59	139
Secondary+	25	38	63	25	86
Wealth quintile					
Lowest	36	73	109	83	183
Second	41	58	100	79	171
Middle	40	55	95	82	168
Fourth	36	54	89	62	146
Highest	29	37	66	49	111

¹Computed as the difference between the infant and neonatal mortality rates

8.6 BIODEMOGRAPHIC DIFFERENTIALS IN CHILDHOOD MORTALITY

This section looks at the association between biodemographic factors and childhood mortality levels (Table 8.3). With the exception of the mother's perception of birth size, mortality rates are presented for the ten-year period preceding the survey.

As is the case in most populations, male children are more likely to die before reaching the age of five (166 per 1,000 live births) than female children (149 per 1,000).

The mother's age at birth is also associated with a child's chances of survival. Children born to younger mothers (under 20 years of age) and older mothers (40 years and older) have higher mor-

tality than children born to mothers in the middle reproductive years (ages 20-39). Children of mothers under age of 20 are especially vulnerable, particularly in the first month of life. Neonatal mortality is 56 deaths per 1,000 among children of teenage mothers, compared with 29 per 1,000 among children of women age 20-29.

There is a strong association between the length of the preceding birth interval and mortality. Under-five mortality of children born following a short birth interval (less than two years) is 67 percent greater than for children born after an interval of 2 years and 162 percent greater than for children born after an interval of 4 years. This relative mortality disadvantage of children born after a short birth interval is even more pronounced during the neonatal period.

In the 2004 MDHS, mothers were also asked their perception of the size of their child at birth for births occurring in the five years preceding the survey. The findings indicate children perceived by their mothers to be small or very small were much more likely to die in the first year of life (121 per 1,000 live births) than those perceived as average or large in size (65 per 1,000 live births).

Table 8.3 Early childhood mortality rates by demographic characteristics					
Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by demographic characteristics, Malawi 2004					
Demographic characteristic	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Child's sex					
Male	42	55	97	76	166
Female	32	56	88	67	149
Mother's age at birth					
<20	56	66	121	78	190
20-29	29	53	82	72	148
30-39	34	54	88	63	145
40-49	48	44	92	76	161
Birth order					
1	47	61	108	72	172
2-3	33	53	87	71	151
4-6	26	52	78	69	141
7+	51	63	114	80	185
Previous birth interval²					
<2 years	62	92	154	112	249
2 years	31	54	85	70	149
3 years	22	34	56	57	110
4+ years	20	35	55	43	95
Birth size³					
Small/very small	52	69	121	na	na
Average or larger	21	44	65	na	na

na = Not applicable
¹Computed as the difference between the infant and neonatal mortality rates
²Excludes first-order births
³Rates for the five-year period before the survey

8.7 CHILDHOOD MORTALITY BY WOMEN'S STATUS

The ability to access information, make decisions, and act effectively in their own interest, or the interest of those who depend on them, are essential aspects of women's empowerment. If women, the primary caretakers of children, are empowered, the health and survival of their infants is likely to be enhanced. Table 8.4 shows infant and child mortality rates in relation to women's status as measured by three empowerment indicators: participation in household decisionmaking, attitude towards a woman being able to refuse to have sex with her husband, and attitude towards wife beating.

There is no consistent relationship between levels of mortality and the first two empowerment indicators: participation in household decisionmaking and number of reasons justifying a woman's refusal to have sex with her husband. However, there does appear to be a relationship in the case of attitude towards wife beating. For example, among women reporting fewer reasons justifying wife beating (i.e., more empowered women) under-five mortality is lower (approximately 150 per 1,000) than among women reporting more reasons justifying wife beating (approximately 180 per 1,000).

Table 8.4 Early childhood mortality rates by women's status					
Neonatal, postneonatal, infant, child, and under-five mortality rates for the 10-year period preceding the survey, by women's status indicators, Malawi 2004					
Women's status indicators	Neonatal mortality (NN)	Postneonatal mortality (PNN) ¹	Infant mortality (₁ q ₀)	Child mortality (₄ q ₁)	Under-five mortality (₅ q ₀)
Number of decisions in which woman has final say²					
0	38	51	89	75	158
1-2	36	59	95	79	166
3-4	37	48	85	58	138
5	38	61	99	68	160
Number of reasons to refuse sex with husband					
0	28	57	85	79	157
1-2	33	61	94	75	162
3-4	39	54	93	70	157
Number of reasons wife beating is justified					
0	36	56	92	71	156
1-2	39	49	89	66	149
3-4	37	69	106	78	176
5	37	61	98	95	184

¹Computed as the difference between the infant and neonatal mortality rates
²Either by herself or jointly with others

8.8 PERINATAL MORTALITY

The 2004 MDHS survey also asked women to report on their pregnancy losses in the five-year period preceding the survey and the gestational age of each lost pregnancy. In this report, perinatal deaths include pregnancy losses occurring after seven completed months of gestation (stillbirths) and deaths to live births less than seven days old (early neonatal deaths). The perinatal mortality rate is the sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies reaching seven months' gestation. The causes of stillbirths and early neonatal deaths overlap, and examining just one or the other can understate the true level of mortality around delivery. For this reason, stillbirths and early neonatal mortality are combined and examined together.

Table 8.5 shows the number of stillbirths, the number of early neonatal deaths, and the perinatal mortality rates for the five-year period preceding the survey by background characteristics. The perinatal mortality rate is 34 per 1,000. This is lower than the rate measured in the 2000 MDHS (46 per 1,000).

By demographic characteristics, there is a clear pattern of elevated perinatal mortality among women younger than 20 and 40 and older. First pregnancies and pregnancies with a short preceding interpregnancy interval are also at an elevated risk of perinatal mortality. First pregnancies and pregnancies with an interpregnancy interval of less than 27 months have a perinatal risk of approximate 46 per 1,000, as opposed to a risk of approximately 25 per 1,000 when the interpregnancy interval is 27 months or longer.

Differences in perinatal mortality by urban-rural residence are substantial. The urban perinatal mortality rate (15 per 1,000) is less than half that of the rural rate (37 per 1,000). Differences by district range from 15 per 1,000 (Lilongwe) to 40 per 1,000 (Mulanje). Differences by region and mother's characteristics are much less pronounced.

Table 8.5 Perinatal mortality

Number of stillbirths and early neonatal deaths, and the perinatal mortality rate (per 1,000 pregnancies) for the five-year period preceding the survey, by background characteristics, Malawi 2004

Background characteristic	Number of stillbirths ¹	Number of early neonatal deaths ²	Perinatal mortality rate ³	Number of pregnancies of 7+ months duration
Mother's age at birth				
<20	45	63	48	2,249
20-29	73	91	28	5,963
30-39	39	42	35	2,293
40-49	11	8	(43)	434
Previous pregnancy interval in months				
First pregnancy <15	51	62	46	2,465
15-26	7	12	(47)	390
27-38	38	53	45	2,028
39+	33	36	24	2,902
39+	38	42	25	3,155
Residence				
Urban	9	13	15	1,434
Rural	159	191	37	9,505
Region				
Northern	24	31	40	1,369
Central	72	75	32	4,566
Southern	72	99	34	5,005
District				
Blantyre	7	12	26	731
Kasungu	10	15	48	536
Machinga	7	11	39	447
Mangochi	12	15	42	648
Mzimba	10	16	39	686
Salima	4	4	25	316
Thyolo	7	12	33	582
Zomba	7	14	39	552
Lilongwe	12	11	15	1,501
Mulanje	7	16	50	444
Other districts	84	78	36	4,498
Education				
No education	48	46	32	2,951
Primary 1-4	63	59	39	3,165
Secondary 5-8	47	79	34	3,685
Secondary +	9	20	26	1,136
Wealth quintile				
Lowest	28	23	24	2,127
Second	59	52	45	2,485
Middle	31	56	35	2,477
Fourth	25	47	34	2,116
Highest	26	26	30	1,735
Total	168	204	34	10,939

Note: Rates in parentheses are based on 250-499 pregnancies

¹Stillbirths are fetal deaths in pregnancies lasting seven or more months.

²Early neonatal deaths are deaths at age 0-6 days among live-born children.

³The sum of the number of stillbirths and early neonatal deaths divided by the number of pregnancies of seven or more months' duration.

8.9 HIGH-RISK FERTILITY BEHAVIOUR

Numerous studies have demonstrated a strong relationship between a woman's pattern of fertility and her children's survival. Table 8.6 shows the distribution of children born in the five years preceding the survey (approximately calendar years 2000-2004) by category of increased risk of dying due to the woman's fertility behaviour, i.e., in terms of being relatively young or relatively old at the time of birth (less than age 18 or age 35 or older), having a high birth order (birth order 4 or higher), or having a short preceding birth interval (less than 24 months).

Column one of Table 8.6 shows the percentage of births during the five years before the survey that fall into various risk categories. More than half of all births (53 percent) fall into a single or multiple high-risk category, with 16 percent falling into a multiple high-risk category.

The risk ratios for categories of births in the last five years are presented in column two: the risk ratio is the ratio of the proportion dead among live births in a specific high-risk category to the proportion dead among births not in any high-risk category. Two points merit comment. First, in Malawi, high birth order as a single-risk factor is not associated with higher mortality risk. The only single high-risk factors leading to heightened mortality risk are young age at birth and short birth interval. Second, short birth interval coupled with another high-risk factor always results in a risk ratio in excess of 2.0. This latter finding underscores the need to reduce, through greater use of contraception, the number of closely spaced births in Malawi.

Column three of Table 8.6 indicates the potential for high-risk births among currently married, non-sterilised women at the time of the survey. The table shows the distribution of risk categories into which a birth would fall if all of these women conceived at the time of the survey. Thirty-five percent of married women have the potential to give birth to a child that falls into a multiple high-risk category.

Table 8.6 High-risk fertility behaviour

Percent distribution of children born in the five years preceding the survey by category of elevated risk of mortality and the risk ratio, and percent distribution of currently married women by category of risk if they were to conceive a child at the time of the survey, Malawi 2004

Risk category	Births in the 5 years preceding the survey		Percentage of currently married women ¹
	Percentage of births	Risk ratio	
Not in any high-risk category	30.0	1.00	25.1 ^a
Unavoidable risk category			
First order births between ages 18 and 34 years	16.8	1.21	6.0
Single high-risk category			
Mother's age <18	7.2	1.76	0.9
Mother's age >34	0.3	(0.94)	2.1
Birth interval <24 months	5.3	1.49	12.9
Birth order >3	24.1	0.97	17.9
Subtotal	36.9	1.20	33.9
Multiple high-risk category			
Age <18 & birth interval <24 months ²	0.4	3.45	0.4
Age >34 & birth interval <24 months	0.0	na	0.0
Age >34 & birth order >3	10.1	0.90	16.9
Age >34 & birth interval <24 months & birth order >3	1.2	2.95	4.8
Birth interval <24 months and birth order >3	4.5	2.12	13.0
Subtotal	16.2	1.46	35.0
In any avoidable high-risk category	53.2	1.28	68.9
Total	100.0	na	100.0
Number of births	10,773	na	8,312

Note: Risk ratio is the ratio of the proportion dead among births in a specific high-risk category to the proportion dead among births *not in any high-risk category*.

Figures in parentheses are based on 25-49 unweighted cases.

na = Not applicable

¹Women are assigned to risk categories according to the status they would have at the birth of a child if they were to conceive at the time of the survey: current age less than 17 years and 3 months or older than 34 years and 2 months, latest birth less than 15 months ago, or latest birth being of order 3 or higher.

²Includes the category age <18 and birth order >3

^aIncludes sterilised women