

Annexure F: Assessment of clinical REF data

TABLE OF CONTENTS

1	MATERNITY	76
2	HIV	77
3	CHRONIC RENAL DISEASE (CRD)	79
4	CARDIOMYOPATHY (CMY) AND CARDIAC FAILURE (CHF)	80
5	BRONCHIECTASIS (BCE)	81
6	HAEMOPHILIA (HAE)	83
7	MULTIPLE SCLEROSIS (MSS)	83
8	SCHIZOPHRENIA (SCZ)	84
9	DIABETES MELLITUS TYPE 2 (DM2)	84
10	MULTIPLE CHRONIC CONDITIONS (CC2; CC3; CC4)	85
11	TOTAL CDL (ALL CDLS PLUS HIV)	87

LIST OF FIGURES

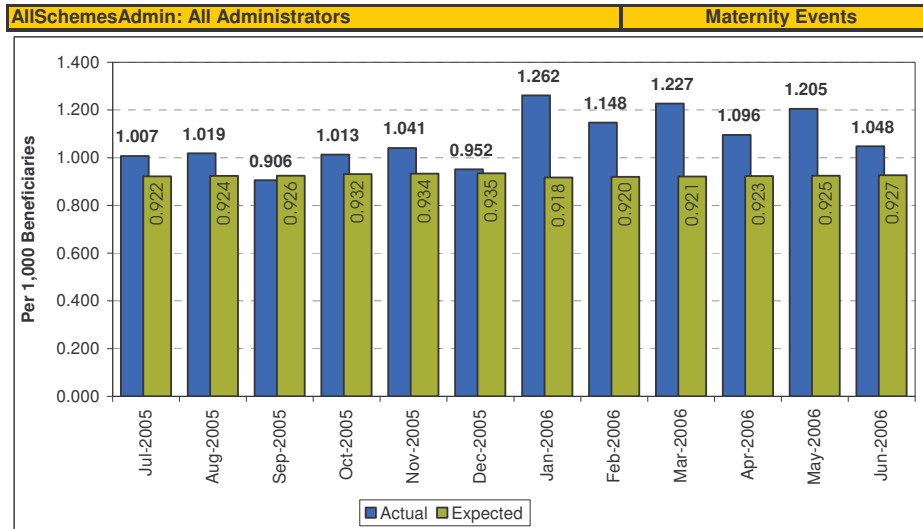
Figure 36: Maternity cases for all schemes by month	76
Figure 37: HIV cases for all schemes by month	78
Figure 38: Chronic renal disease cases by month for all schemes	79
Figure 39: Cardiomyopathy and cardiac failure counts over time for all schemes	80
Figure 40: Bronchiectasis counts for all schemes over time	82
Figure 41: Haemophilia counts over time for all schemes	83
Figure 42: Over reporting of Schizophrenia over time for all schemes	84
Figure 43: Counts for diabetes mellitus 2 over time	85
Figure 44: Counts for Multiple CDL conditions	86
Figure 45: Administrators demonstrating a reduction in excessive multiple CDL counts	86
Figure 46: Reduction in multiple CDL counts from Jan 2006 onward	87

LIST OF TABLES

Table 26: Specific problems encountered in maternity reporting	77
Table 27: Problems encountered in HIV reporting	78
Table 28: Schemes with persistently high chronic renal failure cases	80
Table 29: Schemes incorrectly reporting CHF separately from CMY	81
Table 30: Unexpected high bronchiectasis counts	81
Table 31: Schemes reporting bronchiectasis counts more than 4 times higher than expected	82
Table 32: Decline in Multiple Sclerosis counts	83
Table 33: Schemes reporting exceptionally high levels of schizophrenia	84
Table 34: Schemes reporting more than twice the expected number of diabetes mellitus 2 cases (June 2006)	85
Table 35: Total CDL conditions as a proportion of all beneficiaries by scheme size	88

1 Maternity

Figure 36: Maternity cases for all schemes by month



The graph illustrates the number of maternity cases reported per 1000 beneficiaries for all schemes. Visually, the trend indicates a worsening in the quality of data submitted in 2006 when compared to 2005. Definitional problems seem to be resurfacing in 2006. The previous pattern, whereby cases submitted for the last month in each quarter is lower than in the first two months, continues and is probably because not all claims are yet run-off by the time that REF submissions are made.

The sharp increase in the maternity rate in January is unlikely to be a true reflection of reality and is probably due to data definition and extraction problems.

Table 26: Specific problems encountered in maternity reporting

	Q4 2005	Q1 2006	Q2 2006	COMMENTS
No maternity cases reported	No maternity counts were expected for 5 schemes due to scheme age and gender profile, and the size of the schemes. Although a small number of maternity cases are expected for Witbank Coalfields Medical Aid Scheme, none were reported	Although a small number of maternity cases are expected for Umed Medical Scheme, none were reported		This is a vast improvement from Q1 2005 where 22 schemes did not submit data.
Maternity cases in beneficiaries less than 10 years old	8 schemes: Bestmed, COMMED, Genesis, Hosmed, Medcor, Medihelp, Spectramed, and Telemed.	2 schemes: Fedhealth and Medihelp.	3 schemes: Spectramed, Metrocare and NBC Medical Scheme	There are no expected cases below this age hence these cases can be attributed to definitional problems.
Maternity cases in beneficiaries older than 60 years old	No schemes	1 scheme: Medihelp	2 schemes: Bonitas and Medihelp	Although some of these cases may be credible, there are beneficiaries as old as 70years that were reported.
Average (Actual/Expected)	107,01%	131,25%	119,76%	Significant deviation from expected vales is visible in Q1 2006.

2 HIV

The graph below compares the number of expected to reported beneficiaries per 1000 for all schemes. The expected data is derived from estimates by the Centre for Actuarial Research at UCT. The definition used for REF submissions and thus in this report is that the beneficiary must be on anti-retroviral treatment in accordance with the national guidelines.

Figure 37: HIV cases for all schemes by month

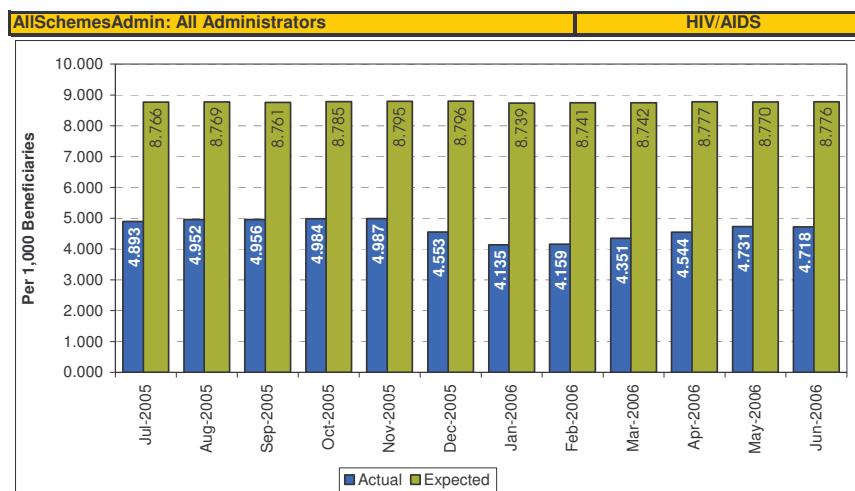


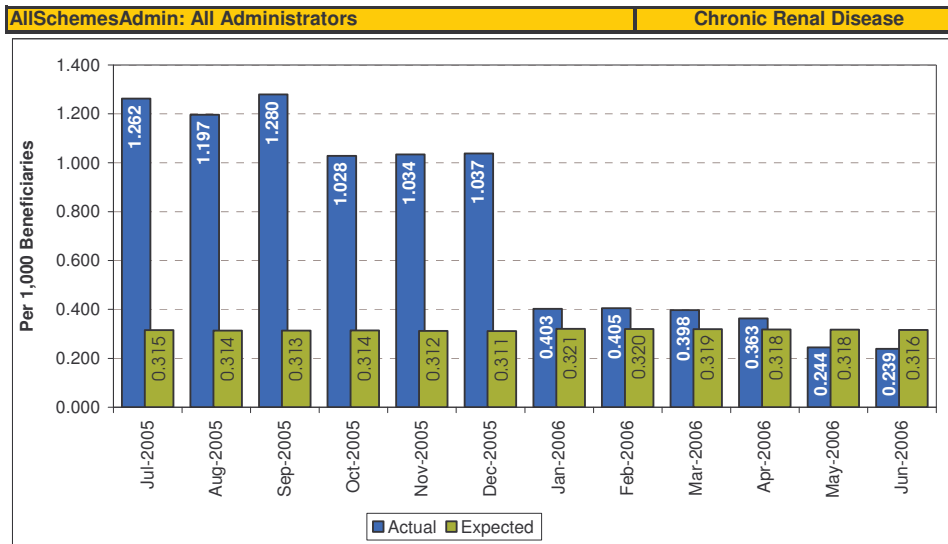
Table 27: Problems encountered in HIV reporting

	Q4 2005	Q1 2006	Q2 2006
No HIV cases reported	7 schemes were not expected to have HIV cases due to scheme age and gender profile, and the size of the schemes.	10 schemes were not expected to have HIV cases due to scheme age and gender profile, and the size of the schemes	5 schemes were not expected to have HIV cases due to scheme age and gender profile, and the size of the schemes
	Based on their demographic profile, the following schemes were expected to submit data but did not: Building & Construction Industry Medical Aid Fund, Fishing Industry Medical Scheme, Grintek Electronics Medical Aid Scheme, Malcor Medical Scheme, Resolution Health Medical Scheme, Telemed,	Based on their demographic profile, the following schemes were expected to submit data but did not: Building & Construction Industry Medical Aid Fund, CSIR Medical Scheme, EyethuMed Medical Scheme, Fishing Industry Medical Scheme, Grintek Electronics Medical Aid Scheme, Malcor Medical Scheme, Naspers Medical Fund, Resolution Health Medical Scheme.	Based on their demographic profile, the following schemes were expected to submit data but did not: Building & Construction Industry Medical Aid Fund, EyethuMed Medical Scheme, Fishing Industry Medical Scheme, Malcor Medical Scheme, Naspers Medical Fund, Protea Medical Aid Society.
(Actual/Expected)	55,29%	48,41%	53,20%

3 Chronic Renal Disease (CRD)

The graph below demonstrates the improving trend in the coverage of expected vs. reported beneficiaries per 1000 for all schemes, since July 2005.

Figure 38: Chronic renal disease cases by month for all schemes



The reporting of this condition has shown major improvement over the last 9 months, with the average Actual/ Expected percentage among schemes being reduced from 257% in Dec 2005 to 112% in Mar 2006 and a further reduction to 92% in Jun 2006. This can be attributed to the major change in the REF entry and verification criteria which attempted to remove the possibility of duplication with similarly treated conditions.

Large improvements in submitted counts have been noted particularly with Telemed (Self-Administered); Naspers (Self-Administered), and COMMED (Allcare Administrators). These schemes had previous reported unrealistic figures for this condition, but this has subsequently progressed toward normative values. Table 28 below contains a list of schemes that continue to report a large deviation from the expected values for chronic renal disease.

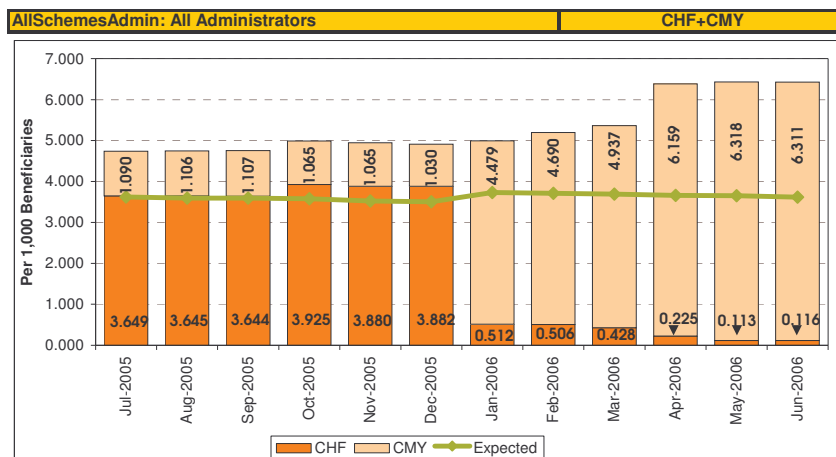
Table 28: Schemes with persistently high chronic renal failure cases

	<i>Dec 2005</i>	<i>Mar 2006</i>	<i>Jun 2006</i>
<i>Platinum Health (Self Administered)</i>	781%	853%	788%
<i>Pro Sano Medical Scheme (Sigma Health Fund Managers)</i>	276%	165%	178%
<i>Spectramed (Rowan Angel Pty Ltd)</i>	327%	211%	237%
<i>Tiger Brands Medical Scheme (Status Medical Aid Administrators)</i>	96%	209%	211%

4 Cardiomyopathy (CMY) and cardiac failure (CHF)

The graph below indicates the expected and actual counts per 1000 beneficiaries for the combination of CMY and CHF.

Figure 39: Cardiomyopathy and cardiac failure counts over time for all schemes



Due to the difficulty in distinguishing cardiomyopathy and cardiac failure on routinely collected data, and because there may exist a causal relationship between the two conditions, these conditions have been combined and are reflected in the CMY column of the grids only. The CHF column should be left blank. The contribution table was adjusted to reflect the new rates. It was recommended that this rule be implemented by schemes as of 1 January 2006. (See Guidelines for the Identification of Beneficiaries with REF Risk Factors in Accordance with the REF entry and verification criteria Version 2)

Table 29 below list the schemes that incorrectly reported CHF separately from CMY in their June 2006 returns.

Table 29: Schemes incorrectly reporting CHF separately from CMY

<i>Scheme</i>	<i>Administrator</i>
Altron Medical Aid Scheme	Allcare Administrators (Pty) Ltd
Cape Medical Plan	Self-Administered
Community Medical Aid Scheme (COMMED)	Allcare Administrators (Pty) Ltd
Genesis Medical Scheme	Definiti Medical Fund Managers (Pty) Ltd
Hosmed Medical Aid Scheme	Allcare Administrators (Pty) Ltd
Impala Medical Plan	Self-Administered
Klerksdorp Medical Benefit Scheme (KDM)	Self-Administered
Kwa-Zulu Natal Medical Aid Scheme	Prosperity Health Managers (Pty) Ltd
Mascom Medical Scheme	Self-Administered
Medihelp	Self-Administered
Naspers Medical Fund	Self-Administered
National Independent Medical Aid Society (NIMAS)	Self-Administered
NBC Medical Scheme	Allcare Administrators (Pty) Ltd
Platinum Health	Self-Administered
Renaissance Health Medical Scheme	Prosperity Health Managers (Pty) Ltd
Sizwe Medical Scheme	Sizwe Medical Services (Pty) Ltd
Spectramed	Rowan Angel (Pty) Ltd
Umvuzo Health Medical Scheme	Self-Administered

5 Bronchiectasis (BCE)

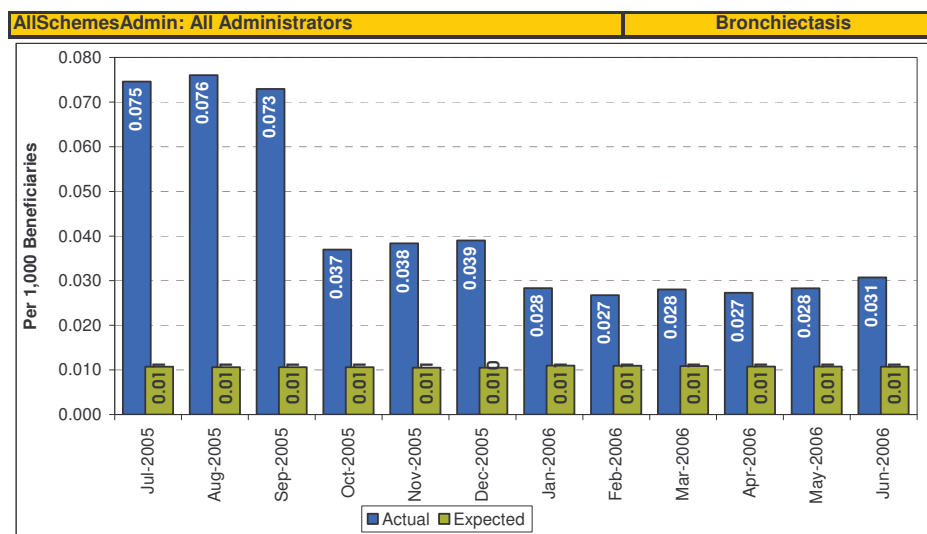
Despite a reduction in the cases reported for Bronchiectasis (BCE), the overall rate is still exceptionally high when compared to the expected.

Table 30: Unexpected high bronchiectasis counts

	<i>OCT 2005</i>	<i>NOV 2005</i>	<i>DEC 2005</i>	<i>JAN 2006</i>	<i>FEB 2006</i>	<i>MAR 2006</i>	<i>APR 2006</i>	<i>MAY 2006</i>	<i>JUN 2006</i>
ACTUAL	242	251	256	191	181	190	185	193	211
EXPECTED	70	69	69	74	74	74	73	74	73

The numbers that are higher than expected could be due to definitional problems relating to the similarity in medication usage in other REF respiratory conditions. The REF entry and verification criteria Version 2 contains updated parameters with which to identify these patients. Schemes and administrators are urged to comply with these recommendations as soon as possible to ensure uniformity in reporting of this condition.

Figure 40: Bronchiectasis counts for all schemes over time



At June 2006, 4 schemes were reporting more than 400% difference from the expected BCE cases (Table 31 below)

Table 31: Schemes reporting bronchiectasis counts more than 4 times higher than expected

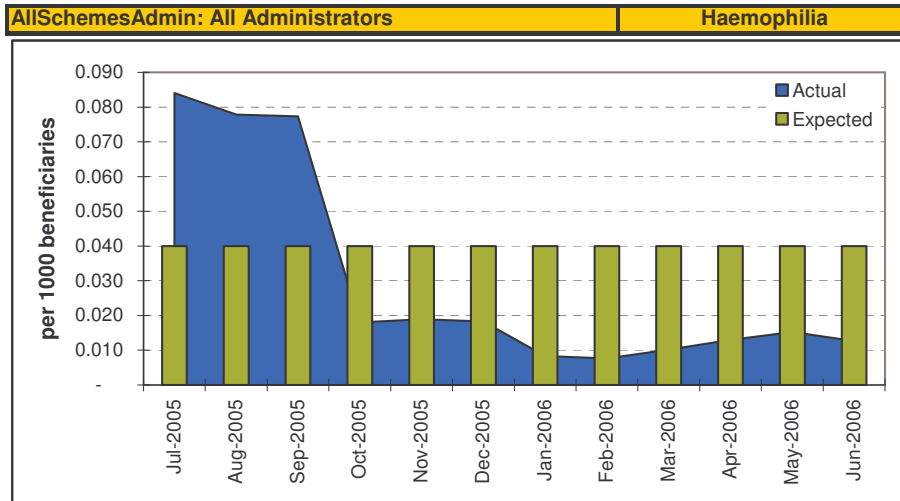
<i>Bonitas Medical Fund (Medscheme Holdings Pty Ltd)</i>	575%
<i>POLMED (Metropolitan Health Group Pty Ltd)</i>	1128%
<i>Spectramed (Rowan Angel Pty Ltd)</i>	1384%
<i>Medcor (Mx Health Pty Ltd)</i>	4312%

Specifically COMMED (Allcare administrators) is applauded on the improvement of its data for BCE, which is now at the expected rate for the scheme.

6 Haemophilia (HAE)

Whereas in previous months this condition was grossly over-reported, this has now greatly improved and stabilized as seen below. The percentage deviation from expected values has decreased materially from 199% in Q3 2005 to 34% in Q2 2006.

Figure 41: Haemophilia counts over time for all schemes



7 Multiple Sclerosis (MSS)

Table 32 below demonstrates a steady decline toward the expected values in the reporting of MSS cases since Q3 2005.

Table 32: Decline in Multiple Sclerosis counts

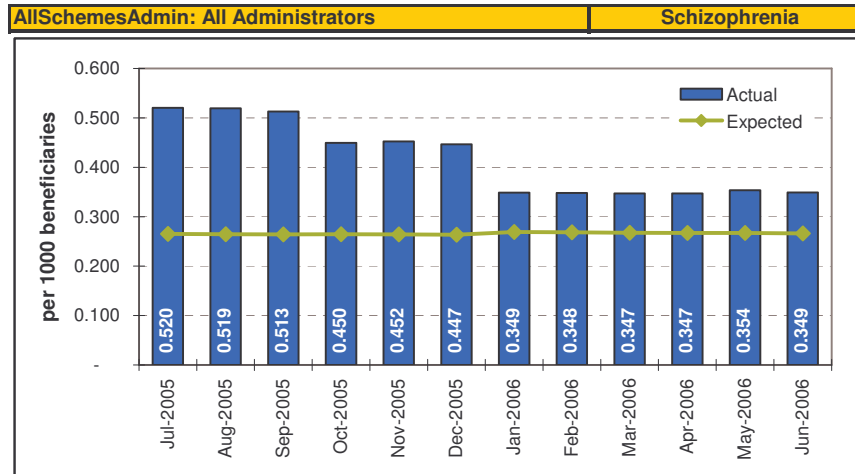
	OCT 2005	NOV 2005	DEC 2005	JAN 2006	FEB 2006	MAR 2006	APR 2006	MAY 2006	JUN 2006
ACTUAL (A)	1235	1220	1231	743	750	773	696	715	714
EXPECTED (E)	649	648	649	676	677	677	678	680	683
A/E %	190,31	188,35	189,73	109,90	110,86	114,17	102,62	105,08	104,50

The exaggerated data submitted by COMMED (Allcare Administrators) in Q2 2005 has been correctly amended and is now within the norm for the scheme.

8 Schizophrenia (SCZ)

Despite the adjustment to the REF entry and verification criteria to facilitate the identification of these patients, reporting of this condition has still not reached the desired level of quality as observed by the graph in Figure 42 below.

Figure 42: Over reporting of Schizophrenia over time for all schemes



The schemes below have contributed the most to the higher than expected data submitted for June 2006 are listed in Table 33 below.

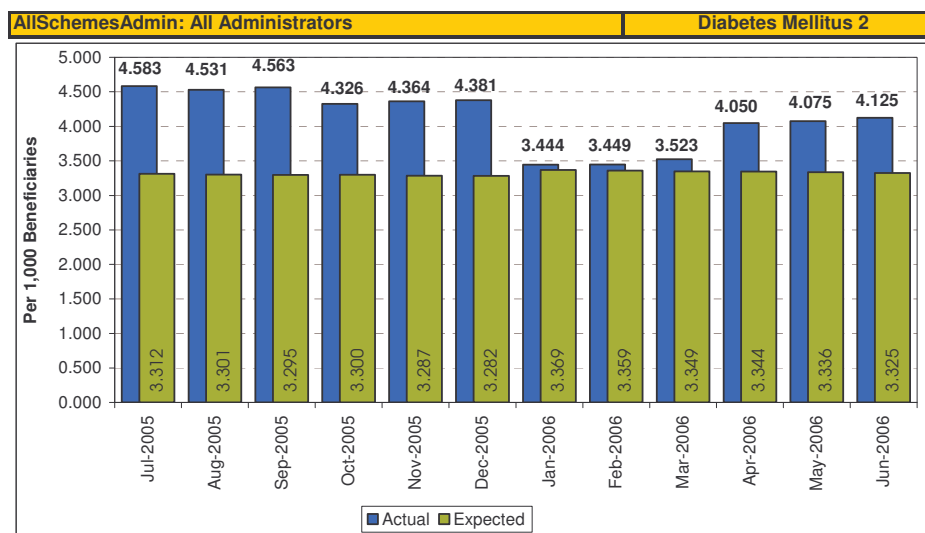
Table 33: Schemes reporting exceptionally high levels of schizophrenia

<i>Medihelp (Self Administered)</i>	250% of projected value
<i>Pro Sano Medical Scheme (Sigma Health Fund Managers)</i>	260% of projected value
<i>Munimed (Multimed)</i>	380% of projected value
<i>Platinum Health (Self Administered)</i>	542% of projected value
<i>Old Mutual Staff Medical Aid Scheme (Old Mutual Healthcare Pty Ltd)</i>	521% of projected value

9 Diabetes Mellitus type 2 (DM2)

Over-reporting of this condition reduced at the beginning of 2006 but has since resumed an upward trend toward the end of June 2006, as indicated in Figure 43 below.

Figure 43: Counts for diabetes mellitus 2 over time



The following schemes who reported more than double the number of expected beneficiaries in June 2006 are listed in Table 34 below.

Table 34: Schemes reporting more than twice the expected number of diabetes mellitus 2 cases (June 2006)

<i>Medcor (Mx Health Pty Ltd)</i>	214%
<i>POLMED (Metropolitan Health Group Pty Ltd)</i>	213%
<i>Pro Sano Medical Scheme (Sigma Health Fund Managers Pty Ltd)</i>	240%
<i>Sizwe Medical Scheme (Sizwe Medical Services Pty Ltd)</i>	273%
<i>Spectramed (Rowan Angel Pty Ltd)</i>	215%

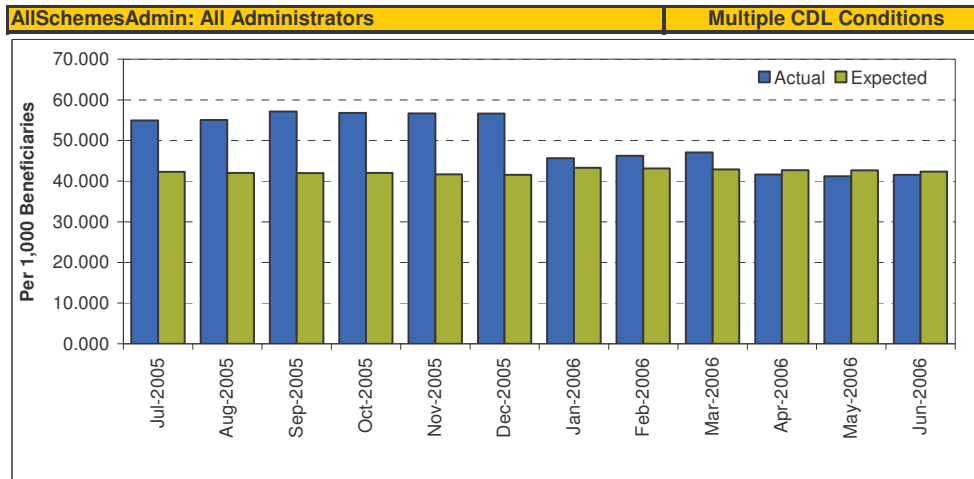
Global Health, administered by Amanzi Health Administrators, reported more than three times the expected values (317%) for June 2006.

These schemes are urged to review their application of the REF entry and verification criteria Version 2, to ensure that its application thereof is consistent and correct.

10 Multiple chronic conditions (CC2; CC3; CC4)

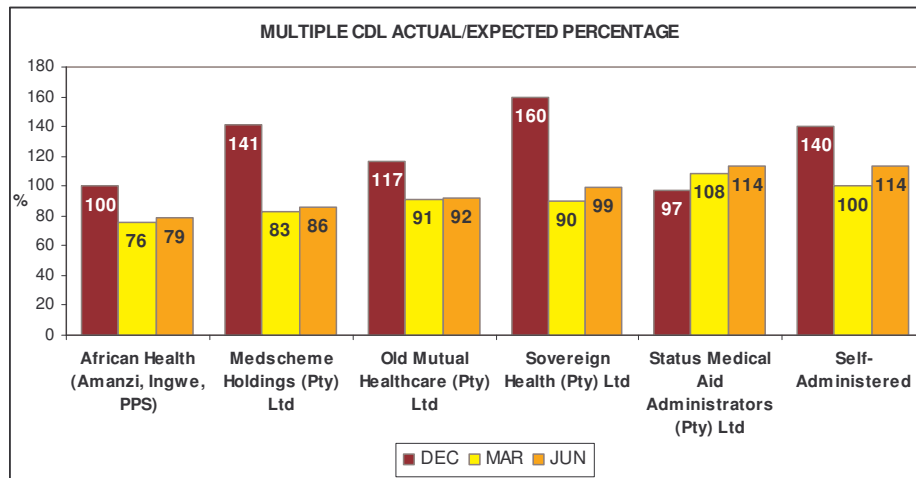
Excessive reporting of beneficiaries with two, three and four or more CDL conditions has consolidated to an acceptable level as the graph below indicates:

Figure 44: Counts for Multiple CDL conditions



The change in the December 2005 to January 2006 statistics is due to the implementation of the REF entry and verification criteria. The following administrators show improved quality data in the reporting of beneficiaries with multiple CDL conditions when compared to some of their colleagues:

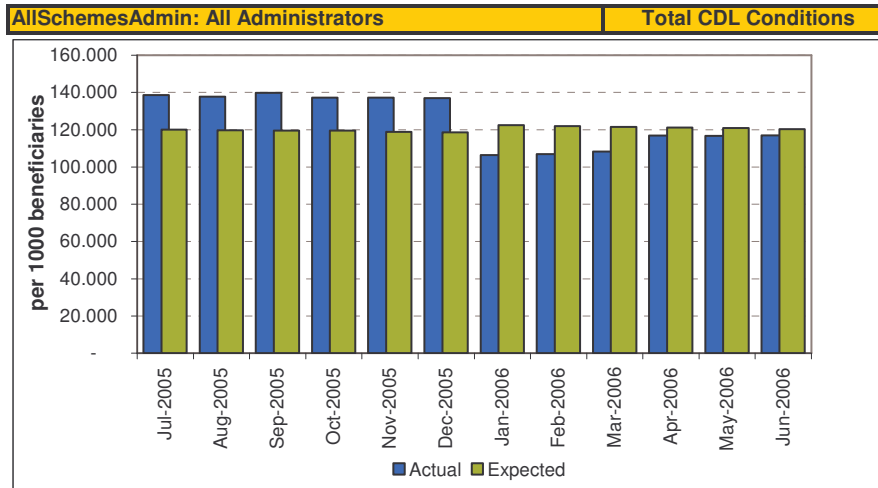
Figure 45: Administrators demonstrating a reduction in excessive multiple CDL counts



11 Total CDL (all CDLs plus HIV)

The graph below reflects the count of actual and expected Total CDL conditions per 1000 beneficiaries for all administrators. The data presented shows improvement over time.

Figure 46: Reduction in multiple CDL counts from Jan 2006 onward



The December 2005 submitted data represents 116% of the expected data; March 2006 is 89% of what is expected and June very closely approaches the expected value at 97%.

Table 35 below shows the percentage of Total CDL as a proportion of the scheme population stratified by scheme size and type. June, in particular, gives a good estimate of the level of CDL population required to mirror the expected values and hence have a favourable risk profile.

Table 35: Total CDL conditions as a proportion of all beneficiaries by scheme size

<i>Type: Size</i>	<i>Total CDL as an average % of scheme population</i>		
	Dec-05	Mar-06	Jun-06
<i>Open: Large</i>	13,30	11,50	12,68
<i>Restricted: Large</i>	16,89	14,74	15,51
<i>Open: Medium</i>	18,05	11,58	10,77
<i>Restricted: Medium</i>	16,23	13,04	14,23
<i>Open: Small</i>	9,50	10,08	11,38
<i>Restricted: Small</i>	16,32	13,51	14,42
<i>Open: Ultra-small</i>	13,04	14,04	15,08
<i>Restricted: Ultra-small</i>	18,81	17,11	13,97