# MANAGING EDUCATIONAL QUALITY IN AN AIDS ENVIRONMENT: DEVELOPMENT OF A DISTRICT-LEVEL DATABASE 

Lilongwe, Malawi

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in co-operation with the
Malawi
Ministry of Education

## Preliminary results

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National AIDS Commission of Malawi

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## General Presentation

## Rationale

Maintaining and enhancing educational quality in the context of the HIV and AIDS epidemic is particularly difficult because the virus is infecting increasing numbers of teaching and administrative staff in the education sector. The epidemic is also affecting pupils. Many have lost one or both parents, leading to financial strains and erratic attendance. In this context, it is important to track on a regular basis factors affecting educational quality during the school year in order to take corrective and preventive measures. However, in order to define, implement and monitor relevant strategies, appropriate information tools are needed.

## Background

IIEP, in partnership with the Ministry of Education and the UNESCO National Commission for Malawi, has designed a model for a local information base that is both sensitive to AIDS impact on staff and pupils and useful in monitoring educational quality. This educational management information system (EMIS) involves the computerization of data collected at the school level for analysis and decision-making at the district level. Many of the data are already collected through the annual school census and/or inspectorate services. Certain data, like the condition of school facilities, are collected and reported once a year. Other data, such as the number of teachers absent, present, on sick leave or who have died, are reported and computerised monthly.

Officially started in March 2005, this district-level EMIS initiative (DEMIS) is designed to strengthen the capacities of District Education Offices, Primary Education Advisors and head teachers to monitor educational quality through the building of a local information system and covers two districts of the CentreWest Education Division, Lilongwe Urban and Rural West. It is envisaged, based on the achievements of this pilot-project, that the initiative could be generalized across the country.

## Overall goals and purpose

Through a participatory process the overall goal and purpose of the Pilot Project are:

- Goal: information is readily available and used at District and zone level to inform management decisions.
- Purpose: educational quality is maintained or enhanced and school management and monitoring practices strengthened.


## Expected outputs

- AIDS-sensitive data collection tools.
- Up-to-date database, readily used by stakeholders.
- Computerized summary sheet of data for each school, comparing a variety of indicators with the district average.
- Mid-term and final analytical reports.


## District-level database: What has already been achieved?

## Identification of needs

The database is designed to be fully integrated in overall sector information management tools and processes. Before finalising the design of the district-level data base, a preliminary assessment of on-going activities in developing or upgrading educational statistics and EMIS management was carried out in MarchApril 2005. The situation analysis was conducted at three levels:

1. The central ministry level

The needs for school-level information of the various units, including educational planning, personnel management, the inspectorate service and the HIVIAIDS focal point were assessed in order to determine what existing or new data needed to be gathered. In addition, the assessment of EMIS development activities was necessary to avoid duplication and overlap.
2. The district level

This is the most critical level for which school-level information needs are determined. The District Education Office (DEO) requires more data reported on a more frequent basis than the central ministry. A comprehensive list of school data and frequency of collection was established. Computer training needs of District Education Managers and Desk Officers were assessed.
3. The school level

A visit to schools in the target area for piloting the district-level database was carried out at project inception in order to determine the quality of collecting and reporting information on attendance and absenteeism, school infrastructure, instructional material, community relations and other factors related to school management and educational quality.

## Activities carried out

First phase (Nov.-Dec. 2005)

- Design of data collection instruments, database and the school-district summary sheets of indicators;
- Training on Excel and Access for the DEO staff responsible for collecting and computerising the data reported by the head teachers;
- Procurement of a computer, current stabiliser, printer and other small devices for each DEO;
- Training of DEMS, PEAs and head teachers on the rationale of DEMIS and procedures of data collection.

Second phase (January-June 2006)

- Data collection of the January to the May monthly forms by the head teachers;
- Improvement of data collection tools based on feedback from PEAs and head teachers;
- Adaptation of the database to facilitate the data entry process;
- Training of DEMS, PEAs and head teachers on how to solve the difficulties remaining after 5 months of data collection and on the use of education data at local level and tools for data analysis;
- Presentation of the results for a selection of indicators in Access.

Final phase (July 2006-April. 2007)

- Data collection of the June to the November monthly forms by the head teachers;
- Final adaptation of the data collection tools and information system;
- Finalization of the summary sheet and database queries;
- Review and feedback on overall initiative;
- Assessment of the sustainability of the information system and support on specific issues;
- Analytical report.


## District-level database: What is the evaluation at this stage?

## Sustainability issues and challenges

$\rightarrow$ The Pilot Project was designed with considerable attention to sustainability, building on what already existed and conducted in a participatory manner. The first sets of results are satisfactory, notably with regards to the level of involvement of head teachers in the data collection. The majority of forms were correctly filled in, without misunderstanding except for a small number of variables. Moreover, coordination and organisation among the various partners was efficient, pointing their involvement in the project.
$\rightarrow$ However, during the implementation of the initiative, the following issues were identified as challenges to the success of the initiative:

- High turnover of staff at Ministry and District level;
- Weak incentive at Ministry level for the involvement of the EMIS unit - this should be resolved in future with the appointment of the Head of Statistics as our counterpart;
- Strained human resources at District level, in particular for the data entry process;
- Weakness of the data entry cleaning;
- Limited computer training in database management of primary users;
- Ownership of the information system will take time to develop;
- Limited resources for photocopying and reproduction.


## Preliminary results

In time, the data collected on teacher and pupil absenteeism, illness, death and orphaning will prove a basis for informing priority interventions. These can be in the form of finding temporary substitute teachers, cooperation with school management committees, NGOs and other bodies that provide assistance to persons infected or affected by HIV and AIDS. Besides the AIDS-sensitive data, the local information base provides data for a variety of initiatives related to developing and enhancing educational quality and strengthening school management practices. For example, information on the following themes can be reported:

- The number of staff meetings held each term and the main themes of discussion;
- The number of visits by inspectorate staff by total and type of visit;
- Extracurricular activities, including "anti-AIDS clubs";
- Teacher problems, including tardiness (one day or more weekly) by main reasons including health problems; financial difficulties; administrative issues; distance from school; family reasons -- or no justification.
- Relations with parents and the local community.


## Lilongwe Rural West district

I-1. Age group by sex
Important information, the age of teachers will allow planning future needs if a major group of teachers retires at the same moment (the current 35-39 y.o., for example).


Only 2 teachers are less than 25 years old - the age group generally most affected by HIV and AIDS in Malawi. 50\% of teachers are younger than 36 years old. The most frequent age for teachers is 38.5 years old.

Most of the teachers are male, with only $36.2 \%$ of female teachers.

* The difference between zones is low: there is maximum 3 years difference on the average age. But the gender distribution is rather unequal, from $18 \%$ in Malembo to almost $77 \%$ in Dzenza.



## I-2. Academic qualification

45.8\% of teachers have a MSCE. The majority has a JCE (53.7\%) and very few teachers have only a PSLCE (0.4\%).

* There are zones that have an important \% of teachers with only a JCE certificate (the other teachers having higher qualification), as Ndaula (18\%) or Majiga (15\%) compared to Likuni that has only 5\% of such teachers.


I-3. Teacher experience


New teachers are few in the district; only 4\% of teachers have less than 3 years of experience, and $8 \%$ of teachers less than 5 . The majority of teachers have between 5 and 15 years of experience. $15 \%$ of the teachers have more than 15 years of experience.

* But the distribution by zone shows imbalances. Njewa presents the highest proportion of less experienced teachers: $20 \%$ of teachers have less than 5 years of experience ( $14 \%$ less than 3 years). In Kasiya $13 \%$ of teachers have less than 5 years of experience ( $8 \%$ less than 3 years). On the opposite, Mpingu and Karonga present the highest proportion of experienced teachers, with around $22 \%$ of teachers with more than 15 years of experience.

|  | Total <br> Rural | Total \% | Chikhutu | Dzenza | Kabudula | kabuthu | Kalolo | Karonga | Kasiya | Likuni |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |
| <3 <br> years | 91 | $4 \%$ | 3 | 2 | 0 | 5 | 1 | 3 | 8 | 5 |
| $[3-5[$ | 71 | $3 \%$ | 9 | 2 | 0 | 4 | 3 | 2 | 5 | 1 |
| $[5-9[$ | 790 | $37 \%$ | 30 | 45 | 36 | 37 | 39 | 26 | 27 | 33 |
| $[10-15[$ | 881 | $41 \%$ | 48 | 39 | 47 | 44 | 43 | 47 | 47 | 42 |
| $[15-25[$ | 198 | $9 \%$ | 5 | 6 | 13 | 7 | 9 | 13 | 10 | 13 |
| $>=25$ <br> years | 121 | $6 \%$ | 5 | 6 | 4 | 3 | 5 | 9 | 3 | 6 |
|  |  |  |  |  |  |  |  |  |  |  |
|  | Total $=$ | 2152 | 111 | 199 | 109 |  | 149 | 234 | 146 | 101 |


|  | Total $\%$ | Majiga | Malembo | Malingunde | Mdzobwe | Mpingu | Mzumazi | Ndaula | Njewa |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ | $\%$ |
| $<3$ <br> years | $4 \%$ | 5 | 1 | 5 | 8 | 1 | 5 | 3 | 14 |
| $[3-5[$ | $3 \%$ | 0 | 3 | 2 | 3 | 2 | 0 | 1 | 6 |
| $[5-9[$ | $37 \%$ | 39 | 51 | 43 | 39 | 36 | 33 | 51 | 37 |
| $[10-15[$ | $41 \%$ | 43 | 36 | 35 | 37 | 40 | 43 | 34 | 28 |
| $[15-25[$ | $9 \%$ | 8 | 6 | 10 | 8 | 13 | 8 | 8 | 7 |
| $>=25$ <br> years | $6 \%$ | 5 | 3 | 5 | 5 | 8 | 11 | 3 | 8 |
|  |  |  |  |  |  |  |  |  |  |

## II Teachers absenteeism

How many teachers are absent? For how long? What are the main reasons? Those are the questions the DEMIS tries to answer. In order to collect reliable data, Primary Education Advisers and head teachers received training and notebooks were provided to facilitate record-keeping at school level.

## II-1. Absenteeism intensity

The absenteeism rate varies according to the months, from a minimum of $5.7 \%$ in September to a maximum of $16.6 \%$ in the end of year (see graph below). This is the global picture, but $42.4 \%$ of schools (92 out of 217) present in January an absenteeism rate higher than the average, from $6.5 \%$ to as high as $41.2 \%$ of absenteeism rate.

2.9\% of the teachers were absent more than half of the working days in January. The situation was similar in February with $2.15 \%$ of teachers.

An unexpected impact of the DEMIS appears in some schools, confirmed by the head teachers and the DEMs: teacher absenteeism reduced when it started being recorded in the questionnaire (some head teachers have the attendance register up on the wall in their office).

* The absenteeism rate by zone shows great disparities. The zones rank is often changing according to the month, but three zones show higher rates on average, Mdzobwe, Dzenza and Likuni. Mzumazi zone was very high the first part of the year, but decreased regularly during the second part. The only zone which regularly has low rates is Chikutu.


## II-2. Absenteeism by reason

Overall the main reasons of teacher absenteeism in the District are 1) the teacher is sick, 2) a family relative is sick or 3) attendance to training. There is a slight variation between months.

Distribution of reason of absenteeism at District-level January to November 2006


* However, there are important differences at zone level, from one extreme with Majiga that shows 60\% of 'sick and family_sick' reasons to the other extreme with Mdzobwe presenting only $33 \%$ of these reasons but $19 \%$ for 'funeral' and $31 \%$ for 'training'.
> Specific results for funerals: In 8 zones, for at least one month of the year, funerals represent between $20 \%$ and $26 \%$ (its maximum during the year) of the reasons of absenteeism: Chikhutu (4 months), Kabudula, Kabuthu, Malembo, Malingunde, Mpingu, Mzumazi and Njewa.

The 'other reasons' item presents a high level of answers that needs to be explained. The revised questionnaire has taken this concern into account.

We did not a find correlation between the absenteeism rate and the level of experience of teachers, head teachers, or \% of female teachers in the school.

## III School Monitoring

An important issue is the monitoring of schools by the PEAs in order to support them in their pedagogical work but also with their general functioning. The information system will also be more reliable if PEAs continually visit schools.

Around 26\% (60 out of 230) of schools have been visited by PEAs in January and 19.23\% (45 out of 234) in February.

Only around half the schools (47\%) have been inspected at the end of the first term. At the end of the two first terms (from January to July), $60.7 \%$ of the schools have been inspected (142 schools out of 234 schools). The visits during the second term concerned in $71 \%$ schools already visited during the first term, and only in $29 \%$, schools not yet visited.

## IV Pupils profile, OVC, absenteeism, attrition

Information is captured on gender, orphans and children with special needs, in particular related to absenteeism and reason of attrition.

IV-1. How many girls and boys?
The balance between genders is rather good; $51.4 \%$ of pupils in the district are girls. A slight disparity exists between zones, in favour of girls (Mdzobwe, Kabuthu, Kabudula) as of boys (Malembo and Mzumazi).

| zone_nam | GirlsPCT |
| :--- | ---: |
| Malembo | 48,1 |
| Mzumazi | 49,2 |
| Ndaula | 49,5 |
| Kasiya | 50,0 |
| Njewa | 50,3 |
| Kalonga | 50,3 |
| Majiga | 50,4 |
| Dzenza | 50,5 |
| Malingunde | 50,8 |
| Mpingu | 51,3 |
| Chikhutu | 51,5 |
| Likuni | 51,5 |
| Kalolo | 51,6 |
| Mdzobwe | 53,4 |
| Kabuthu | 53,7 |
| Kabudula | 54,9 |

How is this balance varying through the grades?
In the beginning of the year, there is almost no disparity. But in July the imbalance changes, with a decrease of the proportion of girls pupils from Standard 2 to Standard 7.

| January | STD1 | STD2 | STD3 | STD4 | STD5 | STD6 | STD7 | STD8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\%$ girls | 50.8 | 50.9 | 50.6 | 51.4 | 51.0 | 50.7 | 49.4 | 46.2 |


| July | STD1 | STD2 | STD3 | STD4 | STD5 | STD6 | STD7 | STD8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| \% girls | 50.0 | 45.6 | 37.5 | 46.7 | 43.5 | 48.5 | 48.1 | 53.1 |

## IV-2. How many orphans?

We found that $9.8 \%$ of the pupils in the district are orphans in January and $10.6 \%$ in August, but over $40 \%$ of the schools have a percentage of orphans higher than this district average ( $43 \%$ and $38 \%$ respectively for January and August).

There are important disparities between schools from 1.3\% of orphans in one school to $30.4 \%$ in another (in August)

* Disparities also exist between zones, even if to a lower degree: from 8.0 in Ndaula zone to 13.4 in Mdzobwe (in January from 7.7 in Ndaula to 13.2 \% in Chikhutu).

The evolution between January and September: 103 schools increased their \% of orphans but only 64 schools showed an increase of at least 1 point of $\%$ up to 13.5 point of $\%$ (Pheleni School). 98 schools decreased their $\%$ of orphans. Out of these, 62 schools showed a decrease of at least 1 point of $\%$ up to 15 points of \% (Bondo LEA School).

## IV-3. Children with special needs (termly data)

The proportion of children with special needs varies between schools from 0.0\% to $13.5 \%$ in January; 15.8\% of schools have over $2 \%$ of pupils with special needs. At zone level, Likuni is the zone with the smallest proportion of pupils with special needs, $0.3 \%$, while in Ndaula, where the proportion is highest, it is of $2.5 \%$. In April the proportion was highest in Kalonga with $2.6 \%$, and in August it is again Ndaula with around $5 \%$ of special needs pupils.

## IV-4. Absenteeism

In the beginning of the school year (January and February), except for 31 schools out of 201 ( $15.4 \%$ of schools), orphans are more often absent than non-orphans in the district, with important variations from one school to another.

In almost half of the schools (47.1\%), absenteeism of orphans is over 3 times more important than for nonorphans. No different trend appears between girls and boys orphans.

The trend between orphans and non orphans is the same for the other months. We can present the results for August:

| Schools where |  |  |
| :--- | :---: | :---: |
| non orphans are more absent than orphans | 32 | $18,5 \%$ |
| same absenteeism rate | 9 | $5,2 \%$ |
| orphans are more absent than non-orphans | 132 | $76,3 \%$ |
| Total | 173 | $100 \%$ |

## IV-5. Dropouts

Of the total pupils dropping out in the district between January and September, looking into each category orphans/non-orphans, we find that the drop-out rate among orphans is $10.5 \%$, while it is only of $3.3 \%$ among non-orphans.

Reasons for dropping out, Jan-sept2006

|  | Orphans | Non-orphans |
| :--- | :---: | :---: |
| Desertion | 34.2 | 33.2 |
| Pregnancy/marriage | 10.4 | 16.5 |
| Transfer | 22.3 | 22.1 |
| Illness | 23.8 | 19 |
| Other causes | 9.3 | 9.2 |



* By zones, we can see some disparities in the reasons of dropouts, in relation to the illness: Kasiya, Malingunde and Likuni in particular.

|  | desertion | preg./marriage | transfer | illness | other |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Kasiya | 4 | 1 | 39 | 52 | 4 |
| Malingunde | 1 | 6 | 50 | 41 | 2 |
| Likuni | 8 | 0 | 9 | 39 | 45 |
| Karonga | 15 | 1 | 12 | 36 | 36 |
| Majiga | 11 | 2 | 21 | 35 | 30 |
| Chikhutu | 25 | 3 | 17 | 31 | 24 |
| Malembo | 37 | 3 | 20 | 29 | 11 |
| Mzumazi | 31 | 1 | 38 | 19 | 11 |
| Mdzobwe | 33 | 2 | 29 | 17 | 19 |
| Njewa | 61 | 1 | 12 | 13 | 13 |
| Ndaula | 55 | 2 | 21 | 13 | 10 |
| Kalolo | 52 | 1 | 23 | 12 | 12 |
| Kabuthu | 4 | 11 | 65 | 9 | 11 |
| Kabudula | 27 | 4 | 14 | 7 | 47 |
| Dzenza | 26 | 2 | 55 | 5 | 12 |
| Mpingu | 64 | 2 | 31 | 3 | 0 |

## V General Information on pedagogical organisation, materials and on school support

## V-1. Pupil class and teacher ratio

March should be a stabilised period with respect to the teachers and pupils' numbers (176 schools are in the database for this month).

Pupil class ratio in March 2006


In March, compared to January, 82 schools increased their ratio, but 35 schools increased their average ratio with more than 6 pupils up to 41 pupils in addition per class (Kaphulika School has one class less in March compared to January). In 24 schools the ratio decreased by 6 to 37 pupils less per class.

* The disparities once again exist when looking at the data by zone. If Dzenza and Likuni are advantaged by a low ratio (respectively 39 and 44), several zones present a very high ratio, such as Malembo and Kabudula (respectively 106 and 116).

| Zone | Pupils per teacher |
| :--- | :---: |
| Dzenza | 39 |
| Likuni | 44 |
| Njewa | 58 |
| Karonga | 69 |
| Mpingu | 74 |
| Mzumazi | 77 |
| Malingunde | 78 |
| Kalolo | 80 |
| Chikhutu | 84 |
| Ndaula | 84 |
| Majiga | 88 |
| Kabuthu | 91 |
| Kasiya | 94 |
| Mdzobwe | 95 |
| Malembo | 106 |
| Kabudula | 116 |

Let's have a look at more disaggregated information, the average ratio of schools within a zone, for example Kabudula, which has the highest ratio. One observes big disparities also between schools.


## V-2. Teachers teaching more than one class

Out of 222 schools in September, we found that 54\% have at least one teacher teaching more than one class (mainly to replace another teacher absent). With respect to the number of teachers concerned within the district in September (2192 teachers), there are 30.6\% in this situation (414 teachers).

|  | Number of schools with teachers |  | \% of (1) <br> in the zone |
| :---: | :---: | :---: | :---: |
|  | teaching more | in the zone |  |
| Zones | than 1class (1) |  |  |
| Mpingu | 3 | 16 | 19\% |
| Kabuthu | 3 | 13 | 23\% |
| Kalonga | 4 | 12 | 33\% |
| Majiga | 6 | 16 | 38\% |
| Ndaula | 5 | 11 | 45\% |
| Mdzobwe | 6 | 12 | 50\% |
| Mzumazi | 8 | 15 | 53\% |
| Likuni | 7 | 13 | 54\% (mean) |
| Kabudula | 6 | 11 | 55\% |
| Njewa | 6 | 10 | 60\% |
| Malingunde | 15 | 23 | 65\% |
| Malembo | 10 | 14 | 71\% |
| Dzenza | 11 | 15 | 73\% |
| Kalolo | 11 | 15 | 73\% |
| Kasiya | 8 | 10 | 80\% |
| Chikhutu | 13 | 16 | 81\% |

There is no correlation between this indicator and the absenteeism rate.

## V-3. Head teacher time

An important factor of the functioning of the school is the leadership of the head teacher. Even if this information is still difficult for some head teachers to estimate, it already gives an idea of the weight of the different activities. Head teachers mainly teach and work on administration duties (56\% of their time). School organisation/management committees take on average $13 \%$ of their time; meetings with teachers $12 \%$ and pedagogical support and supervision $10 \%$. Meetings with parents come in last position with $8 \%$.


In October

## V-4. Head teacher turnover

The Head teachers of the district are in their current school since 5.3 years on average. The duration of a head teacher is important for the school, because she/he will better know his/her teachers, pupils, the environment and the pupil's parents. This situation could facilitate the management of the school.

* Dzenza and Ndaula present head teachers who are more new comers than in the other zones (less than 3 years in their current school) compared specially to Njewa where head teachers are, on average, since more than 9 years in their present school.

| August | Head teachers |  |  | Number of years in the current school |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dzenza | Ndaula | Mdzobwe | Malembo | Malingunde | Majiga | Mpingu | Kasiya |
| Mean | 2,5 | 2,9 | 3,5 | 4,1 | 4,4 | 4,5 | 4,8 | 5,1 |
| Variation | 2,9 | 2,8 | 2,5 | 3,5 | 4,2 | 3,0 | 4,4 | 3,3 |
|  | Chikhutu | Kalolo | Kalonga | Mzumazi | Kabuthu | Kabudula | Likuni | Njewa |
| Mean | 5,2 | 5,9 | 5,9 | 6,0 | 6,2 | 6,6 | 7,9 | 9,4 |
| Variation | 3,0 | 4,3 | 3,8 | 5,4 | 3,5 | 3,4 | 3,8 | 9,2 |

## V-5. Teacher turnover

Between January and October, there was $8 \%$ of movement of teachers, from and out to other districts (99 in and 77 out). The movement (between districts and within) occurred mostly in the first five months, until May, and decreased a little in June, and is low afterwards.

* Zones like Ndaula and Mzumazi have important turnover in their schools, while Kabudula or Njewa present more stable teachers.
\% of teachers that have been less than 2 years in the school (August):

|  | \% |
| :--- | :---: |
| Kabudula | 16.0 |
| Njewa | 17.4 |
| Chikhutu | 18.0 |
| Mdzobwe | 20.4 |
| Malingunde | 20.8 |
| Kalonga | 20.9 |
| Kabuthu | 21.8 |
| Kalolo | 22.7 |
| Mpingu | 24.0 |
| Malembo | 24.7 |
| Dzenza | 25.6 |
| Majiga | 25.8 |
| Likuni | 26.0 |
| Kasiya | 27.4 |
| Mzumazi | 30.2 |
| Ndaula | 30.3 |

## V-6. Availability of 1 rst aid kit

None school reported the availability of a first aid kit.

## V-7. Functioning AIDS-TOTO club and availability of HIV/AIDS materials

Of the 190 schools having answered this question in January, only 9 are supported by an NGO dealing with HIVIAIDS issues, equivalent to $4.7 \%$. In March, just one more school is to be added.

According to the school, from just over $1 \%$ to $65 \%$ of the pupils are covered by a functioning AIDS-TOTO club, showing great variation amongst schools. Three quarters of schools have less than $10 \%$ of their pupils covered.

* Variations also exist between zones.

| Zones | \% pupils <br> covered |
| :--- | ---: |
| Malembo | 21,1 |
| Kasiya | 18,6 |
| Karonga | 18,5 |
| Mzumazi | 14,3 |
| Kabudula | 10,4 |
| Kabuthu | 9,7 |
| Mdzobwe | 7,7 |
| Chikhutu | 7,5 |
| Dzenza | 7,1 |
| Likuni | 6,4 |
| Njewa | 5,2 |
| Malingunde | 5,1 |
| Ndaula | 5,0 |
| Majiga | 4,5 |
| Mpingu | 4,5 |

Number and \% of the schools according to the availability of HIVIAIDS materials by standard

|  | STD 1 | STD 2 | STD 3 | STD 4 | STD 5 | STD 6 | STD 7 | STD 8 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No availability | 205 | 204 | 202 | 196 | 193 | 197 | 199 | 203 |
| Availability | 26 | 27 | 29 | 35 | 38 | 34 | 32 | 28 |
| \% of schools with <br> availability | 12,7 | 13,2 | 14,4 | 17,9 | 19,7 | 17,3 | 16,1 | 13,8 |

## Conclusion

All these results have to be put in relation to the national situation. But this first analysis of the situation in Lilongwe Rural West is impressive concerning the high disparities between the zones, and even within the zones themselves. Therefore it is difficult to reduce the analysis with only one profile for the district and only district level indicators.

Looking at different factors that may impact on the condition of teaching learning (teachers experience, diploma, attendance, number of classes to teach, turnover, the attrition of pupils and the ratio pupil teacher), we can see that Chikutu and Malembo are zones with more difficulties, while Dzenza, Kabuthu and Likuni are more advantaged.

When we focus on HIV sensitive information (teacher absenteeism and pupil attrition), another profile appears: Kabudula, Karonga, Likuni and Njewa seem to be more problematic.

## Lilongwe Urban district

I Profile of teachers

## I-1. Age group by sex

The age of teachers is important information as it will allow planning future needs if a major group of teachers retire at the same moment (the current 30-34 year old for example).


In January

As one can see on the above age pyramid, only $0.3 \%$ of teachers are less than 25 year old - the age group generally most affected by HIV and AIDS in Malawi - while around $50 \%$ of the teachers are younger than 35 years old (January).

Most of the teachers are female, with 85\% of female teachers (in February).

* There are no differences in terms of average age of teachers by zone (less than one year). Although there is some fluctuation in the gender distribution between zones, the representation of female teachers remains very high in all, from 80\% in Mkulula to 94\% in Mvungunti.
\% of female teachers by zone



## I-2. Academic qualification

Half of teachers (49\%) a MSCE. The others own a JCE.

* The situation across zones is broadly similar, with teachers only having a JCE ranging between 46\% in Mkulula to 53\% in Chiwoko.
\% of teachers with JCE


I-3. Teacher experience


New teachers in the district are few with only 6\% of teachers in post since less than 3 years and $9 \%$ with less than 5 years. The majority of teachers in the district have between 5 and 15 years of service ( $77 \%$ ).


* At zone level, we can see that there are disparities. There are many more teachers with less than 5 years of experience in Chiwoko (18.7\%) and Mkulula (11.8\%) than in the other zones (between $1.8 \%$ in Mvunguti and $2.7 \%$ in Chimutu). In Chiwoko, teachers have comparatively less years of service than in the other zones (10 years on average), followed by Mkulula (11.1 years of service). The zone where teachers have most experience is Mvunguti (12.9 years on average).


## II Teachers absenteeism

How many teachers are absent? For how long? What are the main reasons? Those are the questions the DEMIS tries to answer. In order to collect reliable data, Primary Education Advisers and head teachers received training and notebooks were provided to facilitate record-keeping at school level.

## II-1. Absenteeism intensity

We recorded a $6.5 \%$ absenteeism rate at the start of the year (February), and similarly towards the end of the year ( $6.7 \%$ in September). This is the global picture but the situation varies among schools. In February, 22 schools out of 30 presented an absenteeism rate above the average, including one school with over 30\%. Similarly, in September 18 schools out of 34 presented a teacher absenteeism rate above the average, including 3 with rates over 20\%.

Overall, $4.3 \%$ of the teachers in the district were absent more than half of the working days in February. In September, the proportion was of $6.9 \%$.

An unexpected impact of the DEMIS appears in some schools, confirmed by the head teachers and the DEMs: teacher absenteeism reduced when it started being recorded in the questionnaire (some head teachers have the attendance register up on the wall in their office).

* The absenteeism rate by zone shows great disparities. The zones rank differently according to the month, but three zones show higher rates on average, Mkulula, Chimutu and Mvungunti. The absenteeism rate in Kafulu remained low and decreased throughout the year.



## II-2. Absenteeism by reason

At district level there are no important variations in the ranking of reasons of teacher absences throughout the year. Teachers off sick consistently represent the main reason of teacher absenteeism, followed by sickness of a family member (both reasons highlighted in bold in the table below). Excluding the category other causes ('leave other'), attendance to funerals is the third major reason of absenteeism. What is included under the category 'leave other' needs to be further clarified.

Reason of absenteeism at zone-level in percentages
Feb-Apr-Sept-Nov 2006

| zone_nam | Sick | family_sick | funeral | maternity | training | leave_other |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Chimutu | $\mathbf{4 7}$ | $\mathbf{2 7}$ | 8 | 2 | 3 | 14 |
| Chiwoko | $\mathbf{4 6}$ | $\mathbf{2 4}$ | 9 | 3 | 7 | 11 |
| Kafulu | $\mathbf{4 1}$ | $\mathbf{2 5}$ | 8 | 4 | 3 | 21 |
| Mkukula | $\mathbf{2 8}$ | $\mathbf{2 5}$ | 13 | 2 | 10 | 22 |
| Mvunguti | $\mathbf{3 6}$ | $\mathbf{2 5}$ | 10 | 4 | 6 | 21 |

Overall, in February teacher sickness represented 46\% of teacher absences across the District, illness of relatives $28 \%$ and funerals $8 \%$. In November, the proportion of absenteeism due to sickness decreased to $36 \%$, illness of relatives (26\%) and funerals (9\%) remained similar. However, there are important variations at zone level, as illustrated below for the months of February and November.



* Although teacher absenteeism due to sickness was generally lower in November than in February, in Chiwoko it rose to $52.2 \%$ of absences. Similarly, in Kafulu absenteeism due to family sickness increased from $21.2 \%$ in February to $47.4 \%$ in November. In Mvungunti zone, funerals represented the most important reason of teacher absenteeism, accounting for $45 \%$ of all absences, as opposed to $5.5 \%$ in February!

We did not find any correlation between the absenteeism rate and the level of experience of teachers, head teachers, or \% of female in the school.

## III School Monitoring

An important issue is the monitoring of schools by the PEAs in order to support them in their pedagogical work but also with their general functioning. The information system will also be more reliable if PEAs continually visit schools.

Around 51.6\% of schools were visited by PEAs in February, 44.1\% in April, 38.8\% in September and similarly, $37.8 \%$ in November.

Of the 13 schools that were regularly recorded over the four months period (Feb-Apr-Sept-Nov), 31\% were visited once ( 4 schools), $8 \%$ were visited twice ( 1 school), $31 \% 3$ times ( 4 schools) and 1 school was visited every month. $23 \%$ of schools ( 3 schools) were not visited at all. Schools were therefore visited on average 1.7 times over the four months period.

## IV Profile of pupils, OVC, absenteeism, attrition

Information is captured on orphans and children with special needs, in particular related to absenteeism and reason of attrition.

IV-1. How many girls and boys?
The balance between genders in the district is good: 51\% of pupils are girls, with very little disparity between zones.

| Zone | Girls\% |
| :--- | ---: |
| Chimutu | 50.8 |
| Chiwoko | 51.3 |
| Kafulu | 50.5 |
| Mkukula | 51.1 |
| Mvunguti | 51.2 |
| In November |  |

How is this balance varying through the grades? On average, in the Urban District, girls are well represented across all standards, with a slight under-representation in Standards 1 and 2, and slight over-representation in Standards 4, 5 and 6.

| \% Girls <br> Std1 | \% Girls <br> Std2 | \% Girls <br> Std3 | \% Girls <br> Std4 | \% Girls <br> Std5 | \% Girls <br> Std6 | \% Girls <br> Std7 | \% Girls <br> Std8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 49.5 | 49.4 | 50.3 | 52.7 | 51.8 | 53.8 | 50.4 | 51.1 |

In fact, a majority (20 out of 31) of schools have more girls than boys enrolled in Standard 8 at the end of the school academic year (November).

Proportion of girls by standard in LL urban schools:


## IV-2. How many orphans?

We found that in February 12.8\% of pupils enrolled in the District were orphans. At the end of the year, this proportion was reduced to $10 \%$.

* In all zones, the percentage of orphans was lower in November than at the start of the year. Disparities between zones were also reduced: from 17\% in Mvunguti compared to 9.4\% in Kafulu to11.9\% and 8.2\% respectively in November.


However, there are important disparities at school level, ranging from $21.2 \%$ to $0 \%$ of orphans in November. $60 \%$ (21 out of 35 ) of schools have a percentage of orphans higher than the district average.

Between February and November, the rate of orphans decreased in most schools (19 out of 24) sometimes losing up to 18.2 points of $\%$ (Chimutu School, Chimutu). In a few schools (4 out of 24, the rate went up slightly (between 0.4 and 1.4 points of \%).

## IV-3. Absenteeism

Across the District, in September orphans were over 6 times more likely to be absent for over 4 days than non-orphans.

In November, the absenteeism rate of non-orphans was of $1.25 \%$ compared to $4.6 \%$ for orphans. Orphans were more absent than non-orphans in all schools across the District but with important variations, from $0.4 \%$ of orphan absenteeism to $15 \%$ (Lilongwe Boys School). On average, absenteeism of orphans was over three times more important than for non-orphans.

## IV-5. Dropouts

Of the total pupils dropping out in the district in the months of February, April, September and November, we found that $34 \%$ are orphans. Looking into each category orphans/non-orphans, we find that the drop-out rate among orphans is $5.7 \%$, while it is only of $1.4 \%$ among non-orphans.

## Distribution of dropout by reason in \% Feb-Apr-Sept-Nov 2006

|  | Orphans | Non-orphans |
| :--- | :---: | :---: |
| Desertion | $\mathbf{2 3 . 6}$ | 15.9 |
| Pregnancy/marriage | 3.1 | 2.6 |
| Transfer | 38.8 | 56.5 |
| Illness | $\mathbf{1 8 . 0}$ | 12.8 |
| Other causes | 16.4 | 12.2 |

Orphans are overall more concerned by desertion and illness than non orphans.


V General information on pedagogical organisation, materials and on school support

## V-1. Pupil teacher ratio

Looking at the month of June, which corresponds to a stabilised period with respect to the number of teachers and pupils, we found that on average the pupil teacher ratio in the district was of 41.2, ranging from 17 pupils per teacher to 73 according to the school. Out of 29 schools, about half (14) had teacher pupil ratios above the district average.

V-2. Teachers teaching more than one class
Out of 27 schools in November, we found that $37 \%$ of schools (10 schools) have at least one teacher teaching more than one class. With respect to the number of teachers within the district in November who answered this question (1209), there are $9.8 \%$ (118) in this situation.

| Number of schools |  |  |  |
| :--- | :--- | ---: | :--- |
| Zones | with teachers <br> teaching more <br> than 1 class <br> (1) | in the zone |  |
| Chiwoko | 2 | 8 | $25 \%$ |
| Chimutu | 3 | 9 | $33 \%$ |
| Mkukula | 1 | 3 | $33 \%$ |
| Kafulu | 2 | 4 | $50 \%$ |
| Mvunguti | 2 | 3 | $67 \%$ |

37\% (mean)

## V-3. Head teacher time

An important factor of the functioning of a school is the leadership of the head teacher. Even if this information is still difficult for some head teachers to answer, it gives an idea of the weight of the different activities.


HTsuperv, 20\%
HTteaching, 14\%

In September
Head teachers estimate that most of their time is spent on administrative matters and supervision.

## V-4. Head teacher turnover

The Head teachers of the district are in their current school since 5.7 years on average. The duration of a head teacher is important for the school, because she/he will better know his/her teachers, pupils, the environment and the pupil's parents. This situation could facilitate the management of the school.

* Head teachers in Mkulula are more new comers than in the other zones (2.5 years in their current school) compared to Kafulu where head teachers have been in the same school for over 7 years.

|  | Head teachers |  | Number of years in the current school |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mkukula | Mvunguti | Chimutu | Chiwoko | Kafulu |
| Mean | 2,5 | 4,6 | 5,7 | 5,8 | 7,2 |
| Variation | 2,2 | 3,5 | 3,9 | 6,2 | 6,3 |

## V-5. Teacher turnover

On average in the District, teachers have spent 5.8 years in their current school. The variation from the mean in the District is of 4.3 years, meaning most teachers have between 1.5 and 10.1 years of service in their current school.

| Mean | Teachers |  | Number of years in the current school |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mkukula | Chimutu | Chiwoko | Kafulu | Mvunguti |
|  | 4,79 | 5,32 | 6,59 | 6,01 | 6,54 |
| Variation | 4,95 | 4,07 | 4,31 | 3,63 | 4,58 |

* The turnover of teachers seems to be fairly comparable between zones, except in Mkulula zone where there is great variation compared to the mean, indicating that many teachers change schools rapidly or on the contrary stay in their current school for many years.


## V-6. Availability of $1^{\text {st }}$ aid kit

In February, only 33\% of schools had a first aid kit.

V-7. Functioning AIDS-TOTO club and availability of HIVIAIDS materials
Of the 38 schools having answered this question, only 18\% (7 schools) are supported by an NGO dealing with HIVIAIDS issues.


Across the District, the percentage of pupils involved in an AIDS-TOTO club becomes significant from Std5 onwards. However, the proportion of pupils covered is low, with only 33.2\% of pupils covered in Std8.

* When looking at the total number of pupils covered across zones, there are important differences, ranging from $32 \%$ covered in Kafulu zone to $2 \%$ in Chiwoko.

| P \% in HIV club by zone |  |  |
| :--- | ---: | ---: |
| zone | Tot P in club | P\% in club |
| $\mid$ Chimutu | 533 | $3 \% \mid$ |
| \|Chiwoko | 477 | $2 \%$ |
| $\mid$ Kafulu | 877 | $32 \% \mid$ |
| \|Mkukula | 617 | $12 \%$ |
| Mvunguti | 907 | $8 \%$ |

In February

Depending on the school, from $0 \%$ to $18 \%$ of the pupils are covered by a functioning AIDS-TOTO club.
Number and \% of schools according to the availability of HIVIAIDS materials by standard

|  | STD 1 | STD 2 | STD 3 | STD 4 | STD 5 | STD 6 | STD 7 | STD 8 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No availability | 42 | 44 | 42 | 42 | 37 | 37 | 37 | 37 |
| Availability | 6 | 4 | 6 | 6 | 9 | 9 | 9 | 9 |
| \% of schools with <br> availability | 14.3 | 9.1 | 14.3 | 14.3 | 24.3 | 24.3 | 24.3 | 24.3 |

In February

## Conclusion

The situation in Lilongwe Urban shows that they are great differences between districts. In this case the comparison is with Lilongwe Rural West district. Looking at different factors that may impact on the condition of teaching learning, indicators such as teacher absenteeism, pupil teacher ratio or teachers with more than once class are overall lower in the urban context, and the proportion of qualified teachers higher, pointing to a more favourable context.

When we focus on HIV sensitive information, such as the situation of orphans, one can see that on average orphans drop out more frequently than non-orphans and are more regularly absent. The proportion of pupils in an anti-AIDS club is generally very low, even in Std8 and varies between zones.

