





# Out-of-School Children Monitoring Framework

Monitoring Out-of-School Children and Children at Risk of Dropping Out in Romania

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August, 2015





Coordinator: Luminița Costache (UNICEF Romania Education Specialist)

Authors: Frank van Cappelle (UNICEF International Consultant)

Sheena Bell (UNESCO Institute for Statistics)

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- I. Cappelle, Frank van
- II. Bell, Sheena
- III. UNICEF România (Bucureşti)
- IV. Costache, Luminița (coord.)

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The report was coordinated by Luminita Costache (UNICEF Education Specialist), and authored by Frank van Cappelle (UNICEF international consultant) and Sheena Bell (UNESCO Institute for Statistics).

# **Abbreviations**

- **ECA**: Europe and Central Asia
- *EMIS:* Education Management Information System, which in the case of Romania refers to SIIIR
- ISCED: The International Standard Classification of Education designed by UNESCO to facilitate comparisons of education statistics and indicators of different countries on the basis of uniform and internationally agreed definitions.
   See also: <a href="http://www.uis.unesco.org/isced">http://www.uis.unesco.org/isced</a>, and in particular the latest version, ISCED 2011:

http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf.<sup>1</sup>

- **OOSC**: Out-of-school children and adolescents
- SIIIR: Sistem informatic integrat al invatamantului din Romania (Integrated education information system of Romania)
- UIS: UNESCO Institute for Statistics

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<sup>&</sup>lt;sup>1</sup> See page 64 for the education levels and corresponding ISCED levels.

# 1. Introduction

This report outlines a framework for developing a system to monitor children and adolescents who are out-of-school (OOSC) or at risk of exclusion from education in Romania. Without an effective national monitoring system, it is difficult if not impossible to obtain accurate figures on out-of-school children and children at risk of exclusion. Moreover, without such a system related policies and strategies will not be evidence-based, or based on unreliable evidence, and possibilities for analyzing the causes of exclusion will be severely limited. To address these issues, a monitoring system needs to be based on a robust framework with clearly defined indicators, procedures and roles and responsibilities, and a clear understanding of information flows in the system and the potential information gaps and bottlenecks.

Specifically, this report outlines a framework which can be used to:

- (i) Reliably identify OOSC and those at risk of exclusion,
- (ii) Analyze the causes of exclusion, and
- (iii) Develop and implement appropriate evidence-based policies and strategies to prevent exclusion.

To be an effective public management tool, a monitoring and evaluation system needs to be results-based - moving beyond inputs and outputs towards outcomes and impacts (Kusek and Rist, 2004). A distinction needs to be made between results at the national level – in terms of improved policies, strategies and legislation, and at the regional and local levels, in terms of improvements in the capacity of regional and local-level institutions and schools to identify, monitor and support OOSC and those at risk of dropping out.

#### OOSC in Romania

According to UNESCO Institute for Statistics (UIS), an estimated 146,749 children are out of school in Romania in 2012, of which 84,187 of primary school age and 62,562 of lower secondary age. These estimates are based on enrolment statistics from the Romania National Institute of Statistics and UNPD population estimates – which are drawn from the population census. In terms of out-of-school children rates, the UIS estimates 9.8 per cent of primary age children and 7.1 per cent of lower secondary age children are out of school in the school year ending 2012, the latest year with data.

According to calculations conducted by the NIS for this report, there were 57,698 primary age OOSC and 68,357 lower secondary age OOSC in the school year 2011/12, or in terms of rate, 6.9 per cent of primary age children and 7.8 per cent of lower-secondary age children were out of school.<sup>2</sup> However, as discussed in Chapter 2,

<sup>&</sup>lt;sup>2</sup> The reference population used in the calculation for the 2011/2012 school year was from 1 July 2011.

Recommendation 3, neither population census data nor civil registry data are considered to be very accurate.

The Ministry of Education does not provide any official out-of-school figures. Out-of-school figures would need to include both dropouts – that is, all school age children who have dropped out at any time in the past and remain out of school, as well as children who have never attended school. For OOSC rates to be automatically calculated by SIIIR, the information system needs to be able to (i) calculate enrolment rates by single years of age, and (ii) incorporate population data by single years of age; this is further described in Chapter 3.<sup>3</sup>

Previous to the academic year 2014-15, information on out-of-school children in Romania has been hampered by dual, overlapping administrative data collections, both paper-based and highly aggregated. Administrative data collected by the Ministry of Education was not considered reliable by many government bodies, and it lacked disaggregated information needed to design targeted policies. Romania has published two important national out-of-school studies which shed light on this issue, and used household surveys in addition to administrative data to understand the OOSC profiles and barriers, as well as recommend policies to enrol all children in school and keep them there. However, both reports noted that there is a clear need for more and better routinely collected administrative data on out-of-school children, as well as data on children at risk of dropping out. The steps to obtain such data are discussed in the following chapters.

### The Global and Regional OOSC Initiative

The Global Initiative on Out-of-School Children was jointly launched by UNICEF and UNESCO Institute for Statistics (UIS) in 2010 to accelerate efforts toward the goal of universal primary education in 2015. The goal of the Initiative is to achieve a breakthrough in reducing the number of out-of-school children. The issue of out-of-school children and adolescents (henceforth referred to as "OOSC") is one of high priority for realizing the Post-2015 education goals, with their expanded focus beyond primary education to encompass early childhood education and at least lower secondary education. Moreover, inclusion for all is a core theme of the post-2015 education goals, with priority attention to be given to addressing the continuing exclusion of marginalized and vulnerable groups to education, including ethnic minorities such as Roma, poor children living in rural and remote areas, children with disabilities and special needs and internally displaced people. Education is seen as a cross-cutting goal of the overall post-2015 development agenda, as it is a fundamental requirement for inclusive social development, inclusive economic development, environmental sustainability, and peace and security.

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<sup>&</sup>lt;sup>3</sup> As described in Chapter 3, the school-age population which is out of school is calculated as population minus enrolment, and the resulting figures includes both dropouts and children who never enrolled in school.

In 2011, the UNICEF Regional Office for the ECA region took part in the Global Initiative on OOSC in two different capacities. First, four country offices undertook national studies on OOSC – Kyrgyzstan, Romania, Tajikistan, and Turkey. Second, at the regional level, the Regional Office coordinated the studies and prepared a regional synthesis report, provided technical support and contributed to the revision of the TransMonEE education indicators to ensure that they better monitor OOSC and are more relevant to the region's needs.

In 2013, the Regional Office launched a Call for Action to end the exclusion of children from education and to ensure that every child is included in quality learning. The Call for Action was developed in a participatory process involving countries and young activists from the region, and launched in December 2013 at a Regional Ministerial Education Conference in Istanbul. At the Conference 17 countries endorsed the Call for Action and agreed to work together to advance a Regional Agenda to bring about education equity. The Regional Education Agenda aims to contribute to four impact results in terms of changes in children's education participation and learning:

- Every child is in school: Accelerate the political momentum around equity in access to, participation in and timely completion of a full basic education cycle (comprising one year of pre-primary, primary and lower secondary education) and upper secondary education.
- Every child is learning: Promote the importance of the quality and relevance of education as a way to improve learning outcomes and reduce equity gaps in learning.
- 3. Every child learns early and enrols on time: Universalize access to quality early childhood education services and ensure that every child enrols in grade 1, having completed at least one year of pre-primary school, ideally at age 6.
- 4. Every child is supported by effective and efficient governance: Promote good governance within education systems including transparent and accountable arrangements. Greater efficiency accompanied by greater investment in education.

Improving data on out-of-school children is a key pillar of the Regional Education Agenda, in particular strategic priority areas one and three.

The Initiative is guided by the *Framework for Monitoring Out-of-School Children and Adolescents in the CEE/CIS Region*, which outlines 8 barriers and steps to establishing a monitoring system for OOSC and children at risk of dropping out. The Regional Monitoring Framework builds upon six country reports based on visits to six countries in the region, including Romania, which identified gaps in data collection systems and made recommendations to improve the monitoring of OOSC and children at risk of dropping out.

## The Five Dimensions of Exclusion (5DE) model

The Five Dimensions of Exclusion (5DE) model of the Global Initiative on Out-of-school Children Conceptual and Methodological Framework distinguishes between children who are out-of-school, and children who are at risk of dropping out (UNICEF and UIS, 2011). The five dimensions are shown in the box below.

# The Five Dimensions of Exclusion (5DE)

#### Out-of-school children:

- Dimension 1: Children of pre-primary school age who are not in pre-primary or primary school
- Dimension 2: Children of primary school age who are not in primary or secondary school
- **Dimension 3:** Children of lower secondary school age who are not in primary or secondary school

#### Children at risk of dropping out:

- Dimension 4: Children who are in primary school but at risk of dropping out
- Dimension 5: Children who are in lower secondary school but at risk of dropping out

In addition, the model distinguishes between out-of-school children who dropped out, children who enter school late, and children who will never enter school.

Children in dimension 1 – pre-primary age children who are not in pre-primary or primary school – are not technically out-of-school children. However, they represent a group of children who may not be adequately prepared for primary education, are at risk of not entering into primary school and, if they do enter, will be late entrants and are therefore at greater risk of dropping out.

#### Out-of-School Children Visibility Model

The out-of-school children visibility model was created as part of the OOSC Monitoring Framework (discussed below). It highlights gaps in data on out-of-school children and children at risk of dropping out, and proposes different procedures for identifying these children based on their level of visibility. Children facing a high risk of being out of school are often omitted from household survey and administrative data – most often homeless, institutionalized and nomadic children, children with disabilities and unregistered children (without identity papers). The model is additional and complementary to the 5DE model. It provides methods for collecting and analysing information on children 'invisible' in data. It allows researchers to estimate the number of out-of-school children and uses multiple data sources on children, in addition to household surveys and administrative records, to determine which children are out of school and, when possible, why.

There are three groups of visibility:

- 1. Visible out-of-school children: Out-of-school children who can be identified using the Ministry of Education database (SIIIR) or other government education database. Visible out-of-school children typically are school leavers (dropouts) because children who have never attended school are often not recorded.
- **2. Semi-invisible out-of-school children:** Invisible out-of-school children who could be visible by cross-referencing government databases and checking school records. They consist of the following two groups:
  - i. Unregistered dropouts: Children who dropped out but never recorded as such who could be identified by improved vertical flows of information from the school to the national levels, in particular using student-level absenteeism records.
  - ii. Out-of-school children who never enrolled in school: Children who never enrolled but for whom information can be collected by use of horizontal, cross-sector information flows (information sharing). Records on children can be linked through a unique ID, such as a birth certificate number, to identify those who not recorded in the Ministry of Education database, but are recorded in other databases such as civil or local registries, whether electronic or paper based.
- 3. Invisible out-of-school children: Children who are not visible in any government, administrative or school records, so are completely invisible. They generally represent the most vulnerable and disadvantaged children.

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Figure 1. Visible, Semi-invisible and Invisible out-of-school children (OOSC)

In addition, the framework also distinguishes between visible and invisible children at risk of dropping out:

 Visible children at risk of dropping out: Children attending school but at risk of dropping out, who are identified as such within schools. In addition, aggregated school-level data on children at risk of dropping out is also monitored at national or sub-national level.

2. *Invisible children at risk of dropping out:* Children attending school but at risk of dropping out who are either not identified as such within schools, or are identified but not included within school-level data monitored at national or subnational level (discussed in Step 6).

In the 5DE model, each dimension can be associated with expected levels of visibility according to the classification described above. This is shown in below. Visible out-of-school children will generally be those in Dimensions 2 and 3 who have dropped out. Unregistered dropouts are semi-invisible out-of-school children (who are likely erroneously considered as in Dimensions 4 or 5). Those who have never entered school, whether in Dimension 1, 2 or 3, could be either semi-invisible out-of-school children if they exist in administrative or school records, or invisible out-of-school children if they are not recorded in any government records at all. Children in Dimensions 4 and 5 who are at risk of dropping out may be visible at the school level. Schools may, for example, monitor and provide support to children in difficult circumstances and children who display characteristics associated with dropout risk, such as frequent absence. However, they are often invisible at the regional and national levels, unless this information is reported by schools.

Table 1. Visibility Model and the 5DE

DIMENSION	GROUPS OF CHILDREN BY EXPOSURE TO EDUCATION	GROUP OF VISIBILITY THESE CHILDREN MAY BELONG TO		
Dimension 1: Pre-primary age OOSC	Have not entered school	Semi-invisible and Invisible OOSC		
Dimension 2:	Dropped out	Visible OOSC		
Primary age OOSC	Unregistered dropouts	Semi-invisible OOSC		
Dimension 3: Lower secondary age OOSC	Have not entered school	Semi-invisible and Invisible OOSC		
Dimension 4: At risk of dropping out in primary school  Dimension 5: At risk of dropping out in lower secondary school	In school	May be visible at the school level, but invisible at regional and national level		

# **Eight-step OOSC Monitoring Framework**

This section summarizes the key characteristics and models of the UNICEF-UIS OOSC Monitoring Framework<sup>4</sup>. The framework distinguishes eight common barriers to obtaining and using relevant and accurate data on OOSC:

- Barrier 1: Information on OOSC and children at risk of dropping out is incomplete;
- Barrier 2: Information on OOSC and children at risk of dropping out is inaccurate;
- Barrier 3: EMIS (SIIIR) cannot incorporate new indicators and methodologies;
- Barrier 4: Gaps in vertical information flows from the local to the national level;
- Barrier 5: Gaps in horizontal information flows: inter-agency collaboration and data sharing;
- Barrier 6: Children at risk of dropping out are not identified;
- Barrier 7: Data on OOSC and children at risk of dropping out are not reported and analysed;
- Barrier 8: Data on OOSC and children at risk of dropping out are not used for evidence-based policy and decision making.

The eight types of barriers listed above correspond to the eight-step monitoring framework, which proposes step-by-step solutions to each of these challenges. These eight steps are described in *Error! Reference source not found.*. Steps 1 to 3 are concerned with improving the availability and accuracy of data on OOSC and children at risk of dropping out. Steps 4 to 5 are concerned with closing gaps in horizontal and vertical information flows. Steps 6 to 8 focus on using and analysing the data to inform and develop evidence-based policies and strategies to reduce exclusion from education.

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<sup>&</sup>lt;sup>4</sup> UNICEF and UIS (2015). *Out-of-School Children Monitoring Framework: Framework for Monitoring Children and Adolescents who are Out of School or At Risk of Dropping Out in the ECA Region*, Geneva: UNICEF Regional Office for Europe and Central Asia.

Figure 2. Eight step Monitoring Framework for OOSC and children at risk of dropping out

- 1. Establish indicators, definitions and benchmarks
- 2. Prevent, detect and resolve data inaccuracies
- 3. Update EMIS to incorporate new indicators and methodologies



## **Collaborate**



- 4. Close gaps in vertical information flows between local and national level
- **5. Close gaps in horizontal information flows through cross-sector collaboration**
- 6. Develop early warning system
- 7. Develop reporting and analysis routines to inform policies and strategies
- 8. Develop improved evidence-based policies and strategies



Figure 3 below shows the information flows in the eight step framework. Steps 1 to 3 are concerned with improving the availability and accuracy of data on OOSC and children at risk of dropping out. Steps 4 to 5 are concerned with closing gaps in horizontal and vertical information flows. Steps 6 to 8 focus on using and analysing the data to inform and develop evidence-based policies and strategies to reduce exclusion from education.

Figure 3. Information flows in the eight step framework

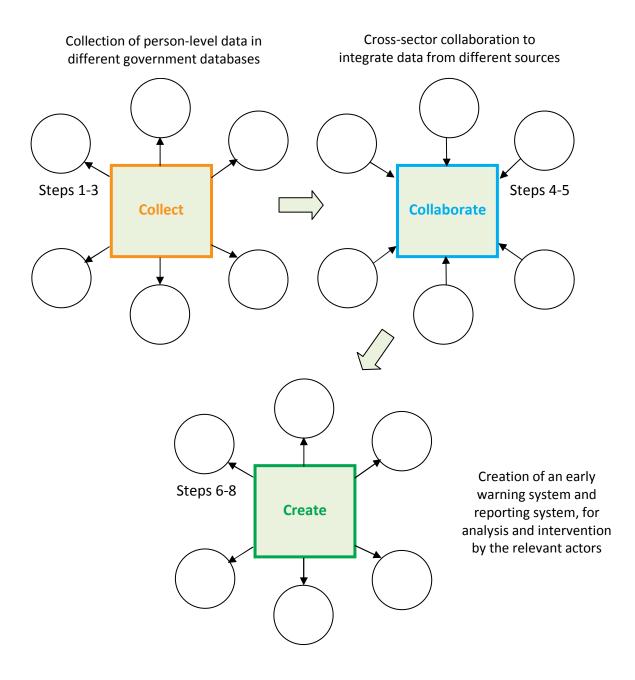
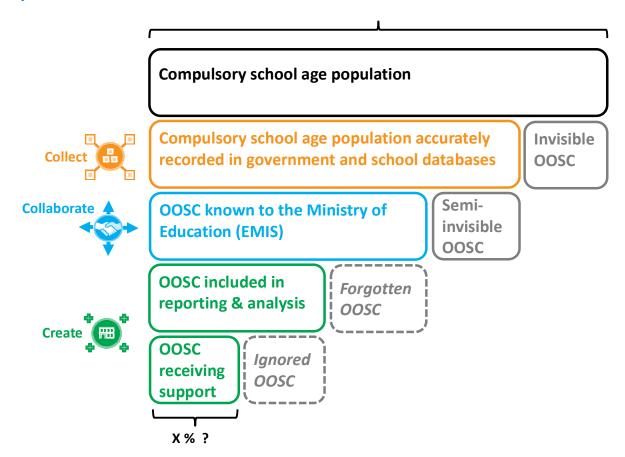


Figure 4 below summarizes potential information loss at various stages in the monitoring system, from the collection of data to the use of the data for evidence-based decision making. The length of the bars in this hypothetical example reflects the percentage of OOSC captured at each step. The decreasing length of the bars at each step reflects information loss, so that by the time the information is analysed and used, only a fraction of the total number of OOSC may be captured (or none at all). Information on children at risk of dropping out is not included in this example – it is often not collected and analysed at all, or only at the school level.

Figure 4. Hypothetical example of information gaps in each step of the monitoring system



The first bar represents the total compulsory school age population in the country. The second (orange) bar covers the share of the compulsory school age population for whom records exist in government and school databases, including the EMIS (SIIIR), but also other databases such as the Civil Registry or Social Services database. These children have not yet been identified as being out of school at this stage, but merely have their personal details recorded in a government database. Invisible OOSC are, in effect, excluded, as they represent those OOSC who are not recorded in any database, such as homeless and refugee children. The third bar (blue) reflects the actual proportion of OOSC known to the Ministry of Education, which excludes Semi-invisible OOSC - that is, currently invisible OOSC who could be made visible through crossreferencing other government databases or by checking school records. The fourth bar (larger green) represents OOSC included in reporting and analysis. Certain groups of OOSC may be excluded from reporting and analysis, and are thus referred to as Forgotten OOSC. The fifth and final bar (smaller green) represents the proportion of OOSC who receive support. Inclusion in reporting and analysis does not guarantee that efforts will be made to support those children, and OOSC who do not receive support in spite of their situation being known are referred to as *Ignored OOSC*.

# Key findings of the 2013 Romania OOSCI study

The Romania OOSCI study (on pre-primary, primary and lower secondary education) released in 2012 raised a number of related issues and recommendations which correspond to the barriers and steps listed in the Regional Initiative's *Monitoring Framework*. In particular, the Romania OOSCI study noted the following issues:

- Lack of clarity and precision in definitions of dropout, non-attendance, withdrawal and repetition, as well as "children with an incomplete academic record at the end of the school year" (missing grades or average grades for certain subjects).<sup>5</sup>
- Need to improve data on specific groups of children: such as children with special educational needs, Roma children, and children with disabilities in mainstream education who are not taken into account in the official NIS statistics on "special education".
- Inconsistences between actual academic records and statistical statements
- Incomplete knowledge of regulations concerning dropout and truancy by school staff, insufficient training in statistical reporting, and lack of data quality and consistency checks.
- The need for a gradebook/academic passport for children who move frequently so as to ensure that lack of documentation does not prevent their re-integration into the Romania school system
- Poor inter-institutional coordination which hinders the response to out-of-school children issues
- The need for long term school cohort tracking, or a school-based information management system whereby all children could be entered into the national database, and basic risk factors could be included

## Key findings of the 2012 UNICEF Regional Office study visit to Romania

The key gaps in data collection systems which were identified during the previous country visit in 2012 are as follows:

- The limited levels of disaggregation of enrolment and dropouts (currently data is available only by sex, grade and area of residence), and lack of inter-institutional mechanisms for collecting and reporting this information.
- The lack of coordination and information sharing between the Ministry of Education departments and other institutions under MoE coordination, such as the Agency for Quality Assurance in Pre-University Education, in particular in relation to data collected on at-risk children from schools.

<sup>&</sup>lt;sup>5</sup> In Romanian: copii cu situatia neîncheiată

- The lack of coordination and information exchange between the education authorities and civil population registry offices with respect to OOSC.
- The lack of coordination and information sharing between the education authorities and other relevant authorities, such as health, child protection, employment, social services, etc.
- The need for student-level data collection (which has now been implemented through SIIIR).
- The general lack of electronic registration of data, which makes the data inaccessible or difficult to access at the national level. This is required to obtain reliable person-level information for the *entire* school age population, since SIIIR only covers the school population *enrolled in school* – see also Chapter 2 – Intersectoral collaboration and information exchange).
- The lack of accuracy of information of government registers at the national level, leading to some children being invisible in the system.
- Insufficient awareness at the grass-root level of the importance of statistical data collection/reporting/analysis for an evidence-based policy-making process in education.

# 2. Recommendations for improving the monitoring of OOSC and children at risk of dropping out in Romania

With the introduction of the SIIIR - the new EMIS, and the end of the dual, paper-based education data collection systems, the 2014/15 academic year is an important transition year for the education management information system in Romania. Comparing the recent activities in Romania to the 8 steps described in the *Regional Monitoring Framework for Out-of-School Children and Children at risk of dropping out,* we see that the developments have focussed on Preventing, detecting and resolving data inaccuracies (Step 2); updating the EMIS to incorporate new indicators and methodologies (Step 3); and closing gaps in vertical information flows between local, regional and national levels (Step 4).

With respect to Step 1 (establishing indicators, definitions, and benchmarks), some work is still needed to ensure that the required indicators and procedures for monitoring OOSC and children at risk of dropping out are established and integrated in SIIIR. The required indicators are discussed in detail in Chapter 3.

The recommendations related to EMIS (SIIIR) cover Steps 3 (updating the EMIS) as well as Step 7 (reporting of indicators). They focus on improving the recording of absenteeism; the implementation of an automatic alert system to prevent dropout and identify out-of-school children; and the development of an automatic reporting system with the required levels of disaggregation for analysis.

With the new cooperation protocol between the Ministry of Education, the National Statistics Institute, and other Ministries and Agencies (which were planned at the time of writing the report), the key mechanisms are moving in place to close gaps in horizontal information flows through cross sector collaboration (Step 5). The purpose of closing information gaps is to ensure that the Ministry of Education can monitor the school participation of the entire pre-school and school age population, and not just a sub-set of the school age population which is enrolled or dropped out from school. There are some outstanding questions and issues which should be considered carefully in order to ensure that the benefits of shared data can be provided to different users. The recommendations related to Step 5, therefore, focus on ensuring that the technical developments of the education data collection result in improved data quality and coverage, and use of data in decision making by both national and school level actors.

This chapter discusses areas which need improvement and obstacles which still need to overcome, along with corresponding recommendations.

# Recommendations related to SIIIR (Steps 3 and 7)

#### **Current practices**

- Measurement of absences: there appears to be a disconnect between the official policy definition of a child who dropped out, and the way dropout is recorded in the SIIIR. According to Valentin Popescu (Director, Unit of Public Policies and Strategies), a child is considered to have dropped out after accumulating 60 hours of unjustified school absence or "truancy". Justified school absence is not counted for dropout. However, as indicated by Ciprian Fartusnic (Director, Institute of Educational Sciences), NIS calculates dropout differently, based on the entry-exit method; the Ministry is deliberating a new definition of dropout, to be applicable in the whole system. Currently, in disadvantaged schools with high levels of absenteeism students are often not considered to have dropped out, in spite of the fact they have not attended school for long periods of time. According to SIIIR IT experts, SIIIR currently does not have the capacity to store the absences for each pupil but progress is being made on an electronic catalogue. This catalogue will use low-cost tablets with a single purpose (collect absenteeism data) and send the information to SIIR. Teachers can use it in the classroom for this purpose.
- Measurement of dropout: Some schools (in urban areas) already have absenteeism information recorded electronically, but it is aggregated by classroom. Individual absences are only available in paper records. As described by the school inspectorate, there is a regulation which specifies that if a child fails to come to school 3 years in a row, then that child cannot be enrolled anymore. No reason for dropout is currently recorded in SIIIR..

#### Recommendation 1: Improve recording of absenteeism and dropout

The recommended procedures for electronic recording of absenteeism and dropout are as follows:

I. There is a need to ensure that the laws on defining the number of absences, and the type of absences which lead to the drop out, are clearly translated into the SIIIR system and electronic catalogue for recording absenteeism. It should include a complete list of possible reasons for absenteeism (e.g. "illness with a doctor's note", "suspension", "on holiday", "religious event", "other", "unknown"). The system (not necessarily the person recording the information) should classify each of these reasons as either justified or unjustified. Unjustified absenteeism or truancy would lead to a special alert (see EMIS alerts below). Once a system of electronically recording absenteeism is in place in all educational institutions, it can be used to automatically determine whether a child is still in school or not. The actual calculation would depend on the final definition of dropout and whether, and how many, hours of unjustified hours of absenteeism would lead to a status of dropout. This would then also need to be reflected in enrolment statistics

generated through SIIIR. An example form for recording reasons of absenteeism is provided below.

- II. Teachers indicate not just whether a student is absent, but also whether a student is present. This is important for the practice to become 'routine' and not 'forgotten', and to be able to better hold teachers accountable. Recording attendance better holds teachers accountable and creates an incentive to keep accurate records. If a student who is absent is recorded as absent, this is no longer an *omission* (forgetting to record absenteeism), but rather a *mistake* (where deliberate or accidental although if done for a period of time rather than once, it would clearly be deliberate).
- III. The reason for truancy *becomes* the reason for dropout, if the truant student fails to return to school after a specified number of hours of unjustified school absence. It also needs to be decided whether it is should be continuous (for example, 60 hours of continuous truancy), or cumulative within a specified time range (this is the approach in Netherlands, which monitors cases of truancy of at least 16 hours cumulated within the past 4 weeks). However, teachers should have the option of changing this reason at the time a student becomes a dropout, as at that time they may have a better idea as to the actual reason for absenteeism/dropout.

#### Form for recording reasons of absenteeism

When a student is absent, it is important that teachers indicate the reason for absenteeism, distinguishing between justified and unjustified reasons. Once a student drops out, the recorded unjustified reason for absenteeism becomes the reason for dropout. This information would enable the monitoring of reasons for dropout, leading to a much better understanding of why children are dropping out – including by age, by region in the country, and other factors enabled through disaggregated analysis of reasons for dropout.

To support this process, schools could be provided with a standardized absence form which parents/guardians would need to complete when their child is absent. The form could include a list of justified reasons for absenteeism, and a separate open-ended field, "other reason for absenteeism". The daily attendance register to be completed by teachers would be identical to that form, for example: <sup>6</sup>

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<sup>&</sup>lt;sup>6</sup> This is based on the list of justified reasons for absenteeism in schools in the Australian state of New South Wales: <a href="http://www.schools.nsw.edu.au/gotoschool/a-z/attendance.php">http://www.schools.nsw.edu.au/gotoschool/a-z/attendance.php</a>. A more detailed list from Portugal is as follows: illness; quarantine due to infectious diseases; death of a family member; birth of siblings (day of birth + the day immediately following birth); outpatient treatments when those are essential and cannot take place outside teaching hours; care/assistance of sick household member when there is evidence that such assistance cannot be provided by any other person; antenatal care, delivery and breastfeeding according to the legislation; religious events when recognised as a key practice; participation in cultural, associative and sports activities of public interest; and sports - high level competitions (Antonowicz, 2013).

- Illness or unavoidable medical / dental appointment
- · Religious ceremony
- Serious and/or urgent family situation, such as a funeral
- Other reason for absenteeism

If the absenteeism is for an unjustified reason (the category "Other reason for absenteeism" in the above list), there may be many different kinds of reasons for this absence. It is important to find out the reason for absenteeism, as unjustified absenteeism can eventually lead to dropout. A certain time frame, for example 3 days, could be provided for teachers to fill in the actual reason for unjustified absenteeism (see also Recommendation 2 - Alert 3 below). This should give enough time to obtain or investigate the reason for absenteeism, and it is of course part of the responsibilities of the school to know if and why students are absent for no legitimate reason. If the reason is never provided, and the reason remains 'unknown', this information could then be used to identify schools where school staff frequently do not know why students are absent. It may be indicative of poor relations between the school and the community, uncooperative parents, and/or lack of interest of school staff in investigating absenteeism.

The following is a proposed list of reasons for unjustified absenteeism to be completed within three days if no legitimate reason for absenteeism has been provided. It also doubles as the reason for dropout should the student not return to school. (A student can of course return to school after having dropped out, so their record, including the reason for dropout, should not be removed from the system). In addition, the form could also specify the action undertaken by the school (an example is provided in the form, based on the approach used in the Netherlands).

#### Reason for unjustified absenteeism (select all that apply):

Physical, cognitive, emotional or other disability which made continued schooling too difficult

Difficulty keeping up with peers / Poor results / Underachievement

Peer pressure (such as friends not going to / dropping out from school)

Difficulty in commuting to school

Unable to afford the costs of schooling (including uniform/clothing, school materials, etc.)

Marriage

Pregnancy / parenthood

Discrimination at school

	Work (including both formal and informal, paid and dispaid work)
	Student's lack of interest in school
	Student's family's lack of interest in their child's education
	Family problems at home (such as violence or drug/alcohol abuse)
	None of the above
0	If none of the above, please indicate the reason below
0	Comments
ction	s undertaken (select all that apply):
	Parent / guardian contacted, on the following date:
	//

<insert relevant government body> contacted, on the following date:

Work (including both formal and informal and unneid work)

Additional actions undertaken, or comments:

\_\_ / \_\_ / \_\_

When incorporating reasons for absenteeism into SIIIR, it needs to minimize error while making the process efficient for teachers. This is an important issue, because recording presence and absenteeism can be very tedious if the system does not make it very easy for teachers, and this would increase the likelihood of errors (careless or deliberate). An example system is described below:

- The teacher opens a screen with a touch-screen friendly list of students.
- The teacher presses on each of the names of the present students to select them, and then presses a button 'present'. All selected students are now marked as present. A "select all" button should not be an option, because it might encourage teachers to quickly mark all students as present, whether they are all present or not.
- The teacher then selects the 'absent' student(s) and presses 'absent'. A
  window/box appears for each student selected as absent, where the reason for
  absenteeism can be selected (for example, with the options "illness" and
  "other/unknown" the latter to be specified at a later date as described
  above).

# Recommendation 2: Implementation of automatic alert system to prevent dropout, and identify out-of-school children

It is proposed that Semi-invisible OOSC are identified through a link between the EMIS and other government databases, such as the Civil Registry. The Civil Registry for example could provide to the SIIIR a list of school age children expected to enrol in the current year. This would enable the detection of non-enrolled children by a certain cut-off date following the start of the school year. Furthermore, it is proposed that information from teachers' door-to-door visits is recorded directly in SIIIR rather than in a separate database. In the Karaganda region in Kazakhstan, for example, information from door-to-door visits is recorded directly in the education database. By having information on children in school and children not in school in the same database, it is possible to identify and produce reports of school age children who are not enrolled in school. For more details see also the section *Inter-sectoral collaboration and information exchange (Step 5)* below, sub-section *Tracking invisible OOSC*.

Each child's record would need to include a birth date to determine their age; address and contact details; and their unique/personal ID (if available). The address could be used to allocate, and designate responsibility for the child, to a particular region/locality and (if possible) a specific school and school zone. Other government databases may have more accurate lists of disadvantaged and vulnerable school age children in difficult circumstances, who are less likely to be visible in the Civil Registry. Such an interministerial approach to sharing information is currently being pioneered in Albania, where Ministers recently signed a Four Ministry Cooperation Agreement (see Appendix 1) to identify all compulsory school age children, as well as a Regulation for the implementation of this agreement.<sup>7</sup>

Cross-sector information exchange is not just a means to identifying Semi-invisible OOSC, but other kinds of semi-invisible children as well. For example, they include children who are visible in SIIIR – but not in the Civil Registry, or children who are visible in the Civil Registry – but not in another government database. Therefore, cross-sector exchange of information can be used to verify and improve the completeness of child-level records across all databases involved.

It is further proposed that SIIR automatically integrates various types of alerts or communication mechanisms:

Alert 1: When school age children expected to enrol in the current school year
are not enrolled by a certain date (as described above), send an alert to the
relevant entity (see Alert 4 below) with the student details, in order to take
action.

<sup>&</sup>lt;sup>7</sup> Between the Ministry of Education and Science, Ministry of Health, Ministry of Labour and Social Issues and the Civil Registry Agency.

- Alert 2: When a child who has no ID is enrolled in school, or if the child's
  records cannot be retrieved from the civil registry, send an alert to the relevant
  department of the Ministry of Internal Affairs with the student details, in order to
  take action.
- Alert 3: If a child is absent from school and no legitimate reason / note has been provided, send an immediate alert (e.g. via SMS) to the parents, as well as an alert to relevant school staff (e.g. via e-mail, and/or an alert when they next log into the school management system), in order to take action.
- Alert 4: If a child is truant for a certain period of time (e.g. the Netherlands considers truancy of at least 16 hours within the past 4 weeks), send an alert to the relevant entity (or entities) to investigate the matter. This could also be a way of monitoring "at risk students" prior to having their status changed to dropout. Ideally, the alert is sent to a coordinating agency or person, in order to (i) avoid duplicate work being done by different institutions, (ii) avoid inaction because one department assumes another department is already taking action, and (iii) to coordinate responses when action is needed from more than one entity working with children in difficult circumstances. For example, in Armenia there are "case managers" who analyse the situation and coordinate the response accordingly. The approach in the Netherlands is detailed in the box below.

#### Enforcing compulsory school attendance in the Netherlands

In the Netherlands it is mandatory for schools to raise an alert in cases of truancy of at least 16 hours within the past 4 weeks. This alert goes to an official of the local municipality who is in charge of enforcing compulsory education. It leads to an inquiry with the school and parents to find a solution, and in case of continued truancy can lead to a fine for parents or even the youth, or community service or a compulsory training/course for the youth. In certain cases it can even lead to loss of child benefits.

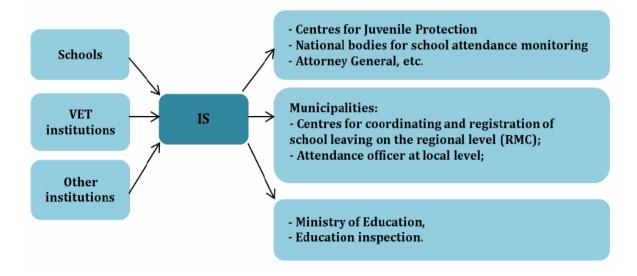
Long-term performance agreements or "covenants" have been established between schools, municipalities, and the national government in order to reduce early school leaving. The performance of educational institutions in reducing the dropout rate compared to the previous school year is closely monitored, and well-performing schools are granted a performance subsidy.<sup>8</sup>

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For more information, see also: <a href="http://www.aanvalopschooluitval.nl/userfiles/file/2014/VSV-Boekje UK 2014.pdf">http://www.aanvalopschooluitval.nl/userfiles/file/2014/VSV-Boekje UK 2014.pdf</a>

Below is an example from the Netherlands, where "IS" stands for the central "Information System", equivalent to SIIIR in Romania.

Reporting of information to the relevant bodies for monitoring and analysis at different levels in the Netherlands



Recommendation 3: Improve reporting of indicators

#### Out-of-school children indicators

Many of the key international education indicators described in Chapter 3 (for monitoring school entry, participation, progression, completion and OOSC), require population data by single years of age. They could be automatically calculated by SIIIR if disaggregated population data by single years of age is incorporated. As of the writing of this report, there were plans for integrating the civil registry with SIIIR (see also the section *Civil Registry* below). Once this link is established, the Civil Registry could provide up-to-date disaggregated population data at times when the key international education indicators are calculated.

Civil registry data is not considered reliable for all areas of the country, and thus the calculations could also be done using population census data to provide a second estimate. However, the population census data is also not considered to be very reliable. Therefore, both figures need to be considered, with the two figures constituting an estimated range for the actual figure.

#### Disaggregation (filtering) and customization

This section proposes automatic reporting to be integrated in SIIIR, or the reporting platform for SIIIR, based on international best practices. It is proposed that the following features are incorporated in order to improve and automate reporting features, to enable the EMIS to be used for monitoring, analysis, and evidence-based decision making:

Automatically generate summary reports on key education indicators

- Present the information in a meaningful way for analysis and interpretation, with options to view information in the form of charts, maps and summary tables. For examples of how other governments are enabling the public to view their data, please see:
  - (i) <a href="http://www.vsvverkenner.nl/english:">http://www.vsvverkenner.nl/english:</a> The online Dropout Explorer of the Netherlands Ministry of Education, Culture and Science. It includes dropouts by school type in each region (province) and municipality, and also dropout statistics for each school.
  - (ii) www.statsilk.com/examples: Examples of maps and visualizations from UN agencies and government agencies around the world. It is a webbased tool for automatically converting a database or spreadsheet into creating interactive visualizations and maps. For country-level example, see:
    - www.statsilk.com/kz: Visualization of Kazakhstan EMIS data.
  - (iii) <a href="https://www.openemis.org/products/dashboard">https://www.openemis.org/products/dashboard</a>: OpenEMIS is an open source EMIS conceived by UNESCO. It has many built in features which are customizable, including a dashboard for monitoring selected data.
  - (iv) Georgia EMIS eCatalog: The Georgian EMIS eCatalog produces a wide range of reports of EMIS data which are publically accessible. It is planned to be updated to incorporate key indicators from Chapter 3 by the end of 2015.
- Include filtering or "drill-down" functionality to enable data, including the indicators specified in the section "International education indicators for monitoring school participation, OOSC and risk of dropout", to be disaggregated according to several criteria. An EMIS typically includes a "Reports" section where various reports can be automatically generated on a range of indicators. It is proposed that the SIIIR Reports section includes the following two sections:
  - (i) An indicator selection dropdown (possibly with several categories of indicators), based on the indicators described in Chapter 3 ("International Education Indicators") and any others required for reporting;

- (ii) Multiple filter selection dropdowns as described below, to filter by multiple criteria.
- To better understand the causes of exclusion from education, the following disaggregation (filtering) criteria are recommended to be included where applicable, for each school year:
  - (i) By single year of age
  - (ii) By sex
  - (iii) By grade and level of education
  - (iv) By type of school (mainstream school, special school, part-time school, home school, special boarding school, mainstream boarding school, etc.)
  - (v) By type of disability, and by ability to participate and learn in class as a consequence of this disability (as listed in Chapter 3, under *Dropout risk*, truancy and disability indicators).
  - (vi) By first, second and (if possible) third level administrative divisions<sup>9</sup> (region, municipality, commune or school zone)
  - (vii) By ethnicity and/or language (if available)
  - (viii) By a combination of the above, e.g. by:
    - Single year of age, further disaggregated by:
      - Sex, further disaggregated by:
        - Region, etc.

An example table with disaggregated data by school year and single years of age is shown below:

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<sup>&</sup>lt;sup>9</sup> http://en.wikipedia.org/wiki/Table of administrative divisions by country

Table template: <Indicator name> <School year>

Age	Total	County 1	County 2, etc.	Munici- pality 1	Munici- pality 2, etc.	Female	Male	Roma
0								
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								

#### User roles and needs

Different user roles need to be defined so that users at different levels have access to data and the types of reports which are relevant to their needs. There is a need for SIIIR data to be accessible at different levels, such as within departments of the Ministry of Education and at the school level. For improving transparency and accountability, certain information could be made public through a portal – see for example the online Dropout Explorer of the Netherlands Ministry of Education, Culture and Science: <a href="http://www.vsvverkenner.nl/english">http://www.vsvverkenner.nl/english</a>. Another example is the Australian websites <a href="http://www.mychild.gov.au">www.mychild.gov.au</a> for preschools and kindergartens, and <a href="http://www.myschool.edu.au">www.myschool.edu.au</a> for schools. The "myschool" website provides information on enrolment, student background, school finances, and national examination results by grade and by year.

To be effective and efficient, a national web-based monitoring system needs to be able to tailor information according to user needs. That is, the types of information and levels of disaggregation should be tailored to the user's role and responsibilities (e.g. researcher, policy maker, education planner, statistician, social worker, teacher or parent). For example, municipality-level data would be more relevant at the national

level within the Ministry of Education, school-level data would be more relevant at the municipality level, and student-level data would be more relevant at the school level. It is also useful for schools to see school-level data to monitor their own performance compared to others (which can be done in Australia, for example, through the "myschool" website linked above).

Reports need to focus on particular issues, such as trends in OOSC by region over time, progress made towards benchmarks, characteristics of OOSC, identified dropout risk factors, absenteeism and truancy trends, and types of support received and required by dropouts. Such reports may take the form of a web-based dashboard rather than a static report, where users can select indicators, areas of the country, and a specific presentation format (e.g. table, chart or map) depending on their needs. Special reports following a specific template could also be automatically produced on a routine basis, for key stakeholders at various administrative levels – national, regional, local levels and school level – with information and levels of disaggregation relevant to those levels.

# Recommendation 4: Ensure all pre-school and school age children are included in SIIIR

- Include pre-primary schools and students into SIIIR. Currently, pre-schools do
  not report to SIIIR data are reported in aggregate form. Ministry of National
  Education staff indicated that specific data requests can be made for more
  detailed information, the availability of detailed information is not routine. The
  availability of pre-school enrolment data was a key data request of primary
  school staff for their intake planning for grade 1.
- Include child-level information from all types of kinds of education institutions. This should include for example private schools, part-time schools, institutions for children with disabilities, and other education institutions. Enrolment in programmes which are not recognized by the country as equivalent to formal education should be calculated separately for enrolment figures for programmes recognized as equivalent to formal education: for example, non-formal or religious education, or day-care centre programmes for children with disabilities, which do not include sufficient curricular content or duration.

#### Data collection regarding specific groups of children

• Roma: It is important to have accurate information on the Roma population in each school because it affects the allocation of special staff, classes (for Roma language and history) and resources where the Roma enrolment (as a proportion of total enrolment) is high. Additionally, careful monitoring is recommended because several studies on the school participation of Roma children show that they are at higher risk of dropout. As of 2014, a parallel system of data collection on Roma school demographics was still in place – one collected by schools and another collected by the Minorities Department of the Ministry of Education. The latter is conducted by Roma education inspectors through the school inspectorate, with the assistance of a school mediator or Roma health

mediator if there is one and in collaboration and with the consent of local Romani leaders, mediators and actors; this approach is deemed to be more accurate by Gheorghe Sarau, Counsellor for Roma, of the Minorities Department. Serban losifescu, Director, Romanian Agency for Quality Assurance in Pre-University Education, noted that there are issues with the school-provided data due to self-reporting. Obtaining accurate information is tricky due to schools reporting false/inaccurate information and/or the general reluctance of students/parents to identify themselves as Roma. This is an issue for follow-up, to see the extent to which SIIIR has completely harmonized data collection related to Roma, and whether the procedure used leads to accurate data. Moreover, it requires verification to ensure the figures are accurate, and that allocation of staff and resources is fair.

• **Children with disabilities:** For children with disabilities, additional information needs to be collected to monitor whether their learning needs are being addressed. This is discussed in Chapter 3, under *Dropout risk, truancy and disability indicators*.

# Recommendation 5: Inclusion of new disability indicators based on the "Social Model of Disability"

Based on a review of the SIIIR manual, SIIIR currently includes the following categories of disability: locomotor, visual, hearing and intellectual. It is recommended that the new school-based approach to measuring disability is adopted, based on the UNICEF (2015) Guide for Including Disability in Education Management Information Systems. This approach distinguishes between seven categories of disability, as follows: vision, hearing, gross motor, fine motor, intellectual, communication, behaviour and socialization. Each of these categories of disability require different kinds of human, environmental and material support at the school level. In addition, it measures disability in terms of how it affects student's ability to participate and learn in school (rather than by severity of disability), specifically: "no difficulty", "some difficulty", "a lot of difficulty or unable". It is based on the "social model of disability", which is now the "dominant legislative, social-science, and humanities paradigm for understanding disability". 10 In this model, disability results from the interaction of a person's functioning and their environment. For example, a physical disability arises from barriers in the environment that prevent the person from participating in society, or in school. The school environment may be such that this disability does not pose any barrier to participation and succeeding in school.

By implementing the above measures, monitoring of disability could be improved by:

1. Distinguishing between additional categories (types) of disability which are currently not being monitored;

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<sup>&</sup>lt;sup>10</sup> Wasserman, D., Asch, A., Blustein, J., & Putnam, D. (2011). *Disability: definitions, models, experience*. In *The Stanford Encyclopaedia of Philosophy*, Zalta, E.N. (Ed.). Retrieved 22 June 2015 from <a href="http://plato.stanford.edu/entries/disability/">http://plato.stanford.edu/entries/disability/</a>.

- 2. Enabling the monitoring of the extent to which schools <u>can meet the needs of children with different types of disability</u>, by considering disability as a result from the interaction of a person's functioning and their environment rather than as a rigid, unchangeable barrier to participation;
- 3. Increasing the likelihood that children with less severe disabilities are identified, monitored and supported.

The categories of disability and approach to integrating are further detailed in Chapter 3, section – *Dropout risk, truancy and disability indicators*. See also the UNICEF report (2015 forthcoming), "Guide for Including Disability in Education Management Information Systems."

## Inter-sectoral collaboration and information exchange (Step 5)

Some potential areas for inter-sectoral collaboration are as follows:

Recommendation: Develop an international (or EU) school passport to record the school participation of children who leave the country. Schools struggle with a significant number of children who migrate and return to Romania with some education completed abroad (a semester or a few grades). There is no standard form or procedure to record school participation abroad and accredit it in the Romanian system. The development of a school passport for children applicable for migration within the EU region would help families facilitate the re-integration into the Romanian school system. A multilingual printout from the SIIIR system declaring the child's profile and grade attending could be added to the passport, to facilitate integration into foreign education systems. As proposed by Ciprian Fartusnic (Director, Institute of Educational Sciences), a pilot could be intiated in collaboration with one or two countries, for example Italy or Spain, where many Romanian children go to school.

Recommendation: Improve information exchange between the National Authority for Child Protection and Adoption and National Authority for People with Disabilities with the Ministry of Education to better track children with disabilities and children in institutions. Currently, there is no systematic information sharing between national authorities responsibles for child protection and adoption, and the Ministry of Education, on children with disabilities or other children in institutions. The Ministry of Education does not have information on how many children are living, or receiving education, in these institutions. As discussed above, information on children with disabilities are generally paper-based. Some of this information could be integrated into SIIIR so that the Ministry of National Education can better identify and respond to their needs. In addition, SIIIR data could be helpful to social workers, for example to have access to the attendance records of the children in their charge.

Recommendation: Establish a governmental institution or agency responsible for the interoperability of governmental databases. The integration of data from a number of ministry databases has both technical and privacy implications. Recommended by Daniel Bojte of the Ministry of National Education, such an institution or agency would provide technical guidelines to harmonize database technology, conventions and facilitate integration of agreed information. In addition, this agency would provide advice on the inter-ministerial agreement for information sharing and ensuring privacy aws are adhered to.

An example of an inter-ministerial approach to sharing information on school age children, the Albanian Four Ministry Cooperation Agreement, can be found in Appendix 1.

#### Tracking invisible OOSC

Invisible OOSC are by definition those who are not registered in the civil registry or any other database. Those at higher risk of not having legal documents and not being registered in any database include children with disabilities – who may be hidden at home by families due to the social stigma, Roma, refugees and in general migrants from other countries. Possible approaches to identifying these Invisible OOSC are as follows:

- School procedures: Ensuring that school administrators are aware that children without any documentation should be entitled to enroll in school according to the education law, and providing guidelines to schools to support families and children in obtaining documentation (such as a birth certificate). This is the responsibility of the Public Services for Social Assistance at the local level. There is currently an absence of clear guidelines for schools on how to deal with such cases, or if they do exist, schools may not be aware of them.
- Establishing partnerships with NGOs and other community-level organizations:

  These organizations may have information on Invisible OOSC, which could be shared with government agencies.
- Door-to-door visits: Schools can play a role in identifying Invisible OOSC through door-to-door visits. In Romania, at the beginning of each school year a census is carried out for all children aged six (the age of entering school). Teachers also conduct door-to-door visits to develop and strengthen the relationship between families and schools. It was proposed by Ciprian Fartusnic (Director, Institute of Educational Sciences) that teams for door-to-door visits are created as a partnership between school actors, a social assistant and community health nurse, with

possible involvement of other community leaders (i.e. priest, local counsellors). This would follow the model promoted in the legislation (social community networks).

It is proposed that the information collected is recorded in SIIIR, in order to identify school age children who have never been to school (mainly late entrants, but also children who may never attend school). In the Karaganda region in Kazakhstan, for example, child-level information collected by teachers during door-to-door visits is entered into the regional education database. By having information on children in school and children not in school in the same database, it is possible to identify and produce reports of school age children who are not enrolled in school. Moreover, it records children from 0 to 18, not just children up to the school starting age. As a result, the system can also track older children excluded from education (e.g. migrants) who would otherwise be invisible. It needs to be taken into account, however, that some children may be missed in door-to-door visits. For example, street children, children in unauthorized camps, and children with disabilities hidden away by their families due to social stigma, could be missed in door-to-door visits. Moreover, such visits may not always be (thoroughly) conducted, in particular if it is weakly enforced and not financially compensated. Furthermore, teachers may also be wary of entering certain areas without a police escort. Unfortunately, children who are likely to be missed in door-to-door visits are likely to be the most disadvantaged, and the most likely to be out of school. Cooperation with the police and local NGOs could help ensure that no children are missed in door to door visits.

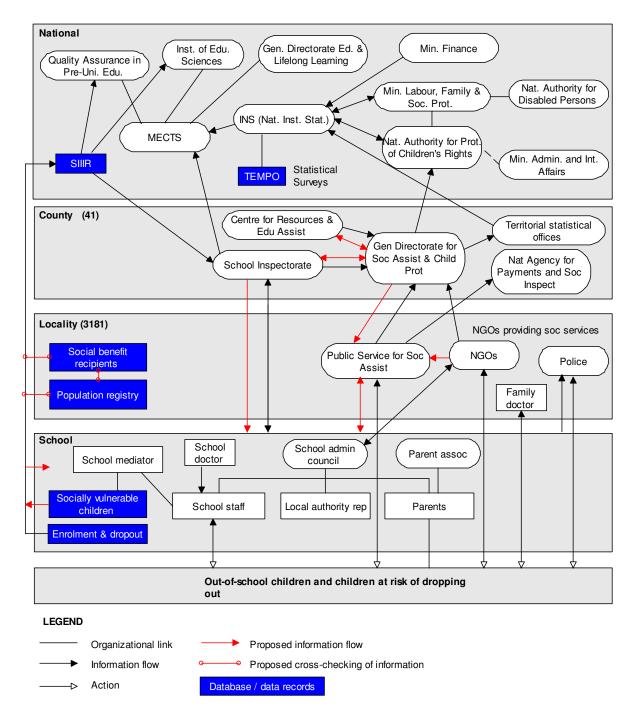
• Addressing the issue of home births: Although home births are not common in Romania, it is still a possible cause of children not having the required documentation once they reach school age. One approach to resolving this issue, used in Georgia, is to make it the responsibility of the person attending the birth (the midwife, doctor and/or community leader) to register (or ensure the registration) of the birth. This process should be standardized and monitoring is required to ensure it is done successfully and consistently. Free birth registration and simple procedures (for example, to avoid the need for a court case when parents do not have the required documentation) are

- important to make it easy and financially feasible for children to be registered.
- Local community leaders and village councils or elders: They are generally knowledgeable about OOSC and children in difficult circumstances in their community, and could be consulted in identifying invisible OOSC as discussed above (door-to-door visits).

## Mapping of information flows

The information mapping below show the key Ministries, agencies and organizations which collect and share information related to out-of-school children and children at risk of dropping out in Romania. The information mapping is intended to provide a holistic overview of the horizontal and information flows at the different levels, and to identify potential bottlenecks or parallel data collections. The arrows in red show the potential information vertical and horizontal gaps to be addressed, as discussed in this report. Since both horizontal and vertical information flows in Romania are continuously changing (such as through the recent introduction of SIIIR), it is not intended as a definite mapping, but rather a snapshot in time (December 2014), which can be updated as the situation changes.

Figure 5. Information flows related to OOSC and children at risk of dropping out in Romania



#### Civil Registry

Recommendation 1: Establish clear procedures for information sharing with the civil registry (especially for school-level actors), and procedures for resolving discrepancies between the civil registry and the SIIIR records.

Interviews with data users indicate that population data at the local level (especially in rural areas) are not accurate and up to date. One major need for population data by schools is to estimate the number of grade 1 entrants to expect at the beginning of the school year, and the information on children who do not enrol at the appropriate age.

Since local civil registry data is often not reliable (beause it may not be updated when families move or emigrate), information on school age children expected to enrol in grade 1 also comes from different sources, depending on the location of the school and the initiatives they take. In some rural communities, school officials may turn to local doctors (if there are any) who potentially have more reliable, updated information on school age children than the commune civil registry office. Kindergarten enrolment data is also used to plan for grade 1 of primary. Some schools compile their own child level databases based on the door-to-door campaign by teachers every September. Given the various approaches used by different schools to obtain a list of students expected to enrol in grade 1 (which is at the same time a list of potentially out-of-school children or late entrants), it is recommended that this procedure is better defined and regulated. Obtaining data from different sources is a good approach (since relying on a single approach could lead to unreliable data), and formal agreements and regulations would facilitate and homogonize this process, ensuring it is carried out consistently. Recording data electronically is also a good approach, but it is recommended that the data is recorded in a central database rather than at the school or local level, which is further discussed in the section Inter-sectoral collaboration and information exchange (Step 5) below (sub-section Tracking invisible OOSC). According to SIIIR experts, SIIIR will integrate civil registry data with enrolment information. This will potentially improve the availability and reliability of the school entry age population data available to schools. This is needed for schools to determine the expected intake rate for the upcoming school year, as well as identify children of school age who are currently not enrolled. The extent this is possible will be determined by what is permissable by the Law 667/2001 on the protection of individuals with regard to the processing of personal data and on the free movement of such data. An inter-Ministerial information sharing agreement is needed, an example of which is provided in Appendix 1 - the Four Ministry Cooperation Agreement signed by Ministers in Albania for the identification and registration of all compulsory school age children. In principle, the cooperation between the population registry and the Ministry of Education was already occurring previous to the SIIIR (albeit in a non-electronic format). The procedure of civil registry data use by school-level administrators should be clearly detailed - so that there is clarity regarding the kind of information available to school-level administrators. One solution is a cooperation agreement for the minimum required data needed by school-level actors to identify which children should be in school: date of birth and home address. Moreover, given the problems with the existing civil registry data noted by data users, it is

recommended to *ensure procedures are in place to identify roles and responsibilities for modifying or updating civil registry* data when more accurate information is received through schools. Lastly, it is important to ensure schools have *clear guidelines on how to extract the population information from the SIIIR system* for the 2015/2016 school year planning for intake to preparatory grade. This recommendation is linked to the implementation of an automatic alert system to prevent dropout and identify out-of-school children discussed in Recommendation 2.

#### Use of statistics in policymaking and planning (Steps 7 and 8)

 Recommendations linked to Step 7 and 8: Ensure data use by decision-makers by training school and district level staff in data use and analysis, create customized reports with relevant data for different data users, and build awareness of benefits of using new SIIIR data through creation of data products and visualizations.

Capacity for analysis and potential for data use: the Romanian Agency for Quality Assurance in Pre-University Education (RAQAPE) collects a substantial amount of socioeconomic data on children and their families, as well as information on teachers, school conditions and supplies. These newly collected data have a huge potential for new, sophisticated analyses to better target resources and strategies. The Agency for Quality Assurance has created some new indicators to transform this new data into useful metrics for decision-making, such as an effectiveness index to compare schools and how they perform relative to their school context. Unfortunately, there is currently no real-time connection between the RAQAPE database and SIIIR. This means that the two types of data collected in these systems are not integrated, preventing monitoring and analysis which would require both sources of data (for example, linking absenteeism data from SIIIR with socio-economic data from RAQAPE).

Furthermore, the use of data depends on whether data are presented in a clear manner relevant to the needs of different actors, and whether there are trained staff which can understand and interpret the data. In the Romanian context, this means ensuring that there are *automated reporting routines* whereby school-level actors, for example, receive a customized set of school and regional or sub-regional data and indicators which can inform their planning. Data users should be consulted to ensure that the data and indicators meet their specific needs. School-level administrators interviewed expressed interest in SIIIR to provide information on school rankings by different indicators, school and district level statistics on promotion rates, data disaggregated by Roma and gender, indicators of teacher experience and qualifications compared to national/district average, and historical trends of the school.

For analysis and interpretation, users should be able to select not just the indicators and level of disaggregation, but also the way in which data is presented – for example, in the form of charts, maps or summary tables, as described in *Recommendation 3* above.

To help schools with planning their intake of preparatory grade students in the

upcoming school year, administrators expressed a need for enrolment data from kindergarten schools, and data on the number of children who will be of primary entrance age living in their catchment area who are not enrolled in kindergarten (as previously discussed above).

Additional ideas for data and information provided from SIIIR to school level actors include:

- Using key indicators (such as school size, pupil-teacher ratio, assessment results, socio-economic indicators) to match schools with similar student profiles. In doing so, schools can identify other schools with similar challenges in order to convene meetings between school professionals to discuss school management issues and strategies. These meetings could be in person, phone, or virtually (through an online collaboration or forum).
- Once relevant data products are created, school management representatives
  and administrators should receive specific trainings on indicator definitions, how
  to interpret the graphs, and potential uses for the information presented.

Of course, the more relevant SIIIR data are to school-level actors, the higher the demand for the data and the more incentive these actors will have to provide timely, complete information into the system.

Secondly, while the potential for data use is greatly expanded with the SIIIR system – it should be ensured that policymakers are informed about the potential new uses of this information for planning. New indicators, indexes, data visualizations, statistical papers or policy notes can highlight the new data available in the SIIIR and go a long way to building awareness among data users of the potential power of this new data source.

Recommendation: enhance Ministry of Education statistical expertise to take full advantage of the new data available in SIIIR by creating a post for an education indicator expert as part of an education statistical unit (distinct from the IT unit). Valentin Popescu, Director, Unit of Public Policies and Strategies, recommended that the Ministry of Education employ an in-house statistical expert in order to be able to have more expertise to calculate and interpret the education data. Currently, SIIIR technicials provide information technology expertise in database creation and technical servies. The Institute for Educational Sciences provides important expertise in education data analysis and research. It is important to have a liaison or counterpart within the Ministry of Education working with the data, who can act as a liason between these data collection and data analysis experts, responsible for the quality and relevance of the education indicators produced by SIIIR. Such a person would have a strong profile in education indicator methodology, and could be a point of reference for other colleagues working with specific groups in the Ministry of Education to include relevant indicators. For example, this staff member could support the office working for Roma issues, of pre-primary issues to help them design indicators with SIIIR data for their needs. A first action item for this in-house expert is to work to document the education indicator definitions, methodology (a glossary) based on the new system.

# 3. International education indicators for monitoring school participation, OOSC and risk of dropout

#### **Enrolment and OOSC indicators**

This section discusses the 5 principal indicators which are proposed to be automatically generated by SIIIR from student-level data. These 5 indicators, together with population data, are the building blocks for generating 21 key international indicators on school entry, participation, progression, completion and OOSC for INSTAT, Eurostat and UIS (listed further below). This includes the new post-2015 education indicators proposed by the Technical Advisory Group (UIS, UNICEF, UNESCO, OECD and the World Bank Group) and indicators linked to important EU benchmarks.

The first three indicators, from A to C, are age-specific indicators:

- Indicator A: Enrolment in primary or secondary education, by single year of age
  - Definition: The number of children or adolescents by single years of age who are enrolled in <u>primary or secondary</u> education (ISCED levels 1, 2 or 3), from 6 to 18 years old or higher, subject to data availability.
- Indicator B: Enrolment in early childhood educational development programmes or pre-primary, by single years of age
  - Definition: The number of children by single years of age who are enrolled in early childhood educational development programmes or pre-primary education, from ages 0 to 7 (or 0 to 6, if there are no 7 year olds still in pre-primary who are starting primary school at a later age)

<sup>11</sup> References:

<sup>-</sup> Eurostat education indicators: <a href="http://ec.europa.eu/eurostat/web/employment-and-social-policy/education-and-training/indicators">http://ec.europa.eu/eurostat/web/employment-and-social-policy/education-and-training/indicators</a>. The EU "early school leaving" indicator is a special case which requires some additional information. Further details are provided below.

<sup>-</sup> Technical Advisory Group (2015). *Technical Advisory Group Proposal: Thematic Indicators to Monitor the Post-2015 Education Agenda*, <a href="http://www.uis.unesco.org/Education/Documents/tag-proposed-thematic-indicators-post2015-education-agenda.pdf">http://www.uis.unesco.org/Education/Documents/tag-proposed-thematic-indicators-post2015-education-agenda.pdf</a>

<sup>-</sup> UIS website, the UN institute responsible for producing data and methodologies to monitor education trends at national and international levels: <a href="http://www.uis.unesco.org">http://www.uis.unesco.org</a>

<sup>-</sup> UNICEF and UIS (2011). OOSCI Conceptual and Methodological Framework (CMF), New York and Montreal.

<sup>-</sup> UNICEF (2015). Guide for Including Disability in Education Management Information Systems, New York: UNICEF.

<sup>-</sup> UNICEF and UIS (2015 forthcoming). *Operational Manual: Global Out-of-School Children Initiative*, New York: UNICEF.

<sup>-</sup> UNICEF and UIS (2015 forthcoming). *Out-of-School Children Monitoring Framework: Framework for Monitoring Children and Adolescents who are Out of School or At Risk of Dropping Out in the ECA Region*, Geneva: UNICEF Regional Office for Europe and Central Asia.

# Indicator C: Number of children and adolescents who left school, by single year of age

O Definition: The number of children by single years of age who are currently not in <u>primary or secondary</u> education (ISCED levels 1, 2 or 3), but have been enrolled at some time in past (so dropped out), from 6 to 18 year old or higher, subject to data availability.

The next two indicators are grade-specific. These two important indicators may already be part of the EMIS reporting functions:

- Indicator D: Total enrolment by education level and grade
- Indicator E: Total number of repeaters by grade

The method of calculating the above indicators through the EMIS is described under *Method for calculating the indicators and levels of disaggregation* below.

In addition, it is proposed that the EMIS can import the following indicator from the population census. This data needs to be incorporated within the EMIS to calculate enrolment and out-of-school rates. The EMIS should provide an easy means of updating this information when new population data becomes available (i.e. with the release of new census data):

#### • Indicator F. Age-specific population data

- Definition: The number of children or adolescents by single years of age, from 0 to 24 years old, with at least the following levels of disaggregation:
  - Population, single years of age by sex
  - Population, single years of age by rural/urban
  - Population, single years of age by regions

Furthermore, it is proposed that at least the following three indicators can be automatically calculated and reported by the EMIS, from the indicators above. Unlike the international education indicators described below, these three indicators are by single years of age rather than aggregated by age group. This enables a better identification of where exactly the problem is occurring (e.g. if late entry to school is an issue and at what age students are dropping out, for specific levels of disaggregation such as by sex and by region).

#### 1. Age-specific enrolment rate (ASER) in primary or secondary education

- Calculation: For each single year of age (from 6 to 18 years old or higher, subject to data availability):
  - Indicator A / Indicator F (total enrolment in primary or secondary education by age, divided by population by age)
- Source: This is an age-specific version of international OOSC indicators 5 to 8 below.
- 2. Age-specific enrolment rate in early childhood educational development programmes, or pre-primary, or primary
  - Calculation: For each single year of age: (0 to 7)
    - (Indicator A + B) / Indicator F (total enrolment in early childhood educational development programmes, pre-primary or primary education by age, divided by population by age)
  - Source: This is an age-specific version of the international early childhood education and pre-primary level indicators below.
- 3. Age-specific Semi-Invisible or Invisible OOSC (Compulsory school age children who are not recorded in the EMIS)
  - Calculation: For each single year of age (from 6 to 18 years old or higher, subject to data availability):
    - Indicator F Indicator A Indicator C (population by age enrolment in primary or secondary education by age - drop-outs by age)
  - Source: UNICEF & UIS Regional Initiative OOSC indicator<sup>12</sup>
- *Note:* The above indicators would need to be calculated with the same levels of disaggregation as the population data, i.e. by sex, rural/urban and region. See also "Indicator disaggregation and customizable reporting" below.

#### List of education indicators

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<sup>&</sup>lt;sup>12</sup> UNICEF and UIS (2015 forthcoming). *Out-of-School Children Monitoring Framework: Framework for Monitoring Children and Adolescents who are Out of School or At Risk of Dropping Out in the ECA Region*, Geneva: UNICEF Regional Office for Europe and Central Asia.

Listed below are the key international indicators for monitoring education entry, participation, progression, completion and OOSC. As this stage, it is most important that the EMIS can generate/incorporate the principal indicators (A to F) above, through which the indicators below can be derived when necessary.

- Indicators <u>A and F</u> above can be used to calculate the following international enrolment and out-of-school indicators:
  - 4. Primary ANER (Adjusted Net Enrolment Rate)<sup>13</sup>
    - Source: UIS, key education indicator
  - 5 and 6 <u>Primary age OOSC number and rate</u> (not in primary or secondary education)
    - Source: UIS; UIS & UNICEF international out-of-school children indicator; post-2015 education indicator
  - 7 and 8. Lower secondary age OOSC number and rate (not in primary or secondary education)
    - Source: UIS; UIS & UNICEF international out-of-school children indicator; post-2015 education indicator
- Indicators A, B and F above can be used to calculate the following international early childhood education and pre-primary level indicators:
  - 9. % <u>Participation in early childhood education</u> (from 4 to 6 years old (the age when compulsory education starts)
    - Source: Eurostat, with EU benchmark of at least 95% in 2020.
  - 10. Participation rate in organized learning (from 24 months to the official primary school entry age)
    - Source: New post-2015 education indicator
  - o 11. Pre-primary GER (Gross Enrolment Ratio)
    - Source: UIS international indicator; post-2015 education indicator

<sup>&</sup>lt;sup>13</sup> Lower secondary ANER cannot be calculated as it excludes enrolment in primary education. To calculate this indicator, it would also be necessary to have data on "the number of children or adolescents by single years of age who are enrolled in secondary <u>but not in primary education"</u>.

- 12. Pre-primary NER (Net Enrolment Rate)
  - Source: UIS international indicator; key education indicator
- 13 and 14. Pre-primary age not in school number and rate: (children aged one year younger than the official school starting age who are not in preprimary or primary education)
  - Source: UIS international indicator, UIS & UNICEF international out-of-school children indicator
- Indicators <u>D</u>, <u>E</u> and <u>F</u> above can be used to calculate the following international education completion indicators:
  - o 15. Gross intake ratio to Grade 1 of primary education
    - Source: UIS international indicator
  - o 16. Gross intake ratio to the last grade of primary education
    - Source: UIS international indicator
  - o 17. Enrolment by level of education
    - Source: UIS international indicator
  - o 18. Primary completion rate
    - Source: post-2015 education indicator
  - 19. Lower secondary completion rate
    - Source: UIS international indicator; post-2015 education indicator
  - o 20. Upper secondary completion rate
    - Source: post-2015 education indicator
- Indicator F is required to calculate the following indicator:
  - 21. Early leavers from education and training, age 18-24
    - Source: Eurostat, with EU benchmark of less than 10% by 2020

Important note: Unlike the other indicators listed here, this indicator requires additional information. The Eurostat definition is specific to the Labour Force Survey from which it is calculated, and is defined as "the percentage of the population aged 18-24 with at most lower secondary education and who were not in further education or training during the last four weeks preceding the survey." However, the similar indicator "the percentage of the population aged 18-24 with at most lower secondary education" can be calculated from EMIS data. It requires that the EMIS maintains records of students at least until they reach age 25, and keeps a record of the last grade successfully completed. The calculation would be: number of adolescents who did not complete, or did not go beyond lower secondary education (ISCED level 2), age 18 to 24, divided by the population for that age group (from indicator F).

#### Method for calculating the indicators and levels of disaggregation

One of the possible methods for calculating the indicators and generating the tables for the reports would be as follows:

- 1. For age specific indicators A, B and C:
  - (i) Count the number of children for each single year of age (e.g. number of 6 year olds, 7 year olds, etc.). This is done by calculating each child's exact age using their date of birth, and a key reference date (i.e. the date when children of school starting age are expected to be in schools). The reference date needs to be a modifiable field in the EMIS.
  - (ii) For each single year of age, count the number of children enrolled in either primary or secondary for Indicator A; count the number of children enrolled in pre-primary only for indicator B; and count the number of children with the status 'dropped out' for Indicator C.
- 2. For grade specific indicators D and E:
  - (i) Count the number of children in each grade

- (ii) For each grade, count the number of children with the status 'enrolled' for indicator D; and count the number of children with the status 'repeating' for indicator E.
- 3. For disaggregating the data by sex, location etc. a methodology is needed for applying additional filters or criteria. For example, to disaggregate indicator A by sex, the following calculation could be applied:
  - (i) For each single year of age, count the number of children enrolled in either primary or secondary who are female
  - (ii) Then count the number of children enrolled in either primary <u>or</u> secondary who are male.
- 4. The same method would be applied for additional levels of disaggregation. For example, to disaggregate indicator A by sex and location, the following calculation could be applied:
  - (i) For each single year of age, count the number of children enrolled in either primary or secondary who are female and live in rural areas
  - (ii) For each single year of age, count the number of children enrolled in either primary or secondary who are female and live in urban areas
  - (iii) For each single year of age, count the number of children enrolled in either primary or secondary who are male and live in rural areas
  - (iv) For each single year of age, count the number of children enrolled in either primary or secondary who are male and live in urban areas

## Dropout risk, truancy and disability indicators

Incorporating dropout risk indicators in the EMIS allows for the better identification of children who are the most vulnerable, the most likely to drop out, and who most need support. Given limited resources and staff time (e.g. of teachers, school psychologists, social workers), this enables a more evidence-based approach which ensure that those most in need of support are more likely to receive it. It is of course better to prevent dropout than it is to deal with the problem once children have already dropped out.

The list of dropout risk indicators is based on the UNICEF and UIS *Out-of-School Children Monitoring Framework*, which includes a more complete list based on a

literature review.<sup>14</sup> It is proposed that the EMIS student administration includes a page/tab of student information with 5 to 10 dropout risk indicators, for example:

- Student does not live with biological parents (1 point)
- Student has difficulty commuting to school due to the large distance or other reasons (1 point)
- Student has no pre-primary experience (1 point)
- Student has severe behavioural problems or anti-social behaviour (1 point)
- Low income family, or student's family receives social assistance (1 point)

These indicators would need to be adapted to the Romanian context. For example, the combination of low income and Roma ethnicity may be a particularly high risk factor for dropout.

These are key risk factors as identified in the literature review conducted for the UNICEF and UIS *Out-of-School Children Monitoring Framework*, and were also found to be key issues in the ECA region based on discussions with government and NGO representatives, school principals and teachers (in seven countries in the region). A much longer list can be found in the *OOSC Monitoring Framework*. However, adding more indicators may overburden teachers, and certain kinds of information may be difficult to obtain.

#### Risk index

Student-level dropout risk and disability indicators are important to identify children who are the most vulnerable, the most likely to drop out, and who most need support. Given limited resources and staff time (e.g. of teachers, school psychologists, social workers), this enables a more evidence-based approach which ensure that those most in need of support are more likely to receive it. It is of course better to prevent dropout than it is to deal with the problem once children have already dropped out.

Research has shown that multiple risk factors increase the risk of drop out.<sup>16</sup> Therefore, combining risk indicators could lead to a more accurate determination of drop out risk. Different categories of risk could be distinguished based on the cumulative weight of all

<sup>&</sup>lt;sup>14</sup> UNICEF and UIS (2015 forthcoming). *Out-of-School Children Monitoring Framework: Framework for Monitoring Children and Adolescents who are Out of School or At Risk of Dropping Out in the ECA Region*, Geneva: UNICEF Regional Office for Europe and Central Asia.

<sup>&</sup>lt;sup>15</sup> UNICEF and UIS (2015 forthcoming). *Out-of-School Children Monitoring Framework: Framework for Monitoring Children and Adolescents who are Out of School or At Risk of Dropping Out in the ECA Region*, Geneva: UNICEF Regional Office for Europe and Central Asia.

<sup>&</sup>lt;sup>16</sup> Lehr, C. A., Johnson, D. R., Bremer, C. D., Cosio, A., & Thompson, M. (2004). *Essential tools: Increasing rates of school completion: Moving from policy and research to practice: A manual for policymakers, administrators, and educators.* Minneapolis, MN: University of Minnesota, Institute on Community Integration, National Center on Secondary Education and Transition.

http://www.ncset.org/publications/essentialtools/dropout/part1.3.asp

the measured indicators combined, for example: 1-3 = some dropout risk, 4-6 points = high dropout risk, 7 + points = very high dropout risk.

It also needs to be taken into account that some indicators are likely to represent a more important dropout risk than others. Risk indicators could therefore be assigned a 'weight', for example from 1 to 3, where 3 represents the highest risk of dropout.

The first step in developing a system of determining dropout risk may be to simply collect data on at risk students for a period of time. Once sufficient data has been collected, an analysis of this data could provide a statistical basis for assigning weights to risk indicators, and assigning dropout risk categories (e.g. low, medium, high) to combinations of indicators. Such an analysis would require that the system keeps records over time of (i) which children have dropped out, (ii) their dropout risk data, and (iii) the actual recorded reasons for dropout. It would be an evolutionary process where the indicators, their weights and the determination of risk categories are adjusted over time based on an analysis of the data.

Besides the risk factors above, a list of disability indicators is proposed based on the UNICEF (2015) *Guide for Including Disability in Education Management Information Systems*. The disability indicators are dropout risk indicators. But they also serve to monitor which school can or cannot meet the needs of children with disabilities, including for which kinds of disabilities. The disability indicators are assigned a 'weight' (number of points) indicating the severity of the problem. For example, a student who has no primary experience (1 point) and a <u>lot of difficulty or is unable</u> to participate and learn in class due to a vision-related disability (2 points) would have a risk index of 1 + 2 = 3 points.

Children with disabilities by type of disability <sup>18</sup>	Example points (weights)			
1a. <i>Vision:</i> the student has <u>no difficulty</u> participating and learning in class	0			
due to this disability.				
1b. Vision: the student has some difficulty participating and learning in	1			
class due to this disability.				
1c. Vision: the student has a lot of difficulty or is unable to participate	2			
and learn in class due to this disability.				
2a. <i>Hearing:</i> the student has no difficulty participating and learning in	0			
class due to this disability.				
2b. <i>Hearing:</i> the student has some difficulty participating and learning in	1			
class due to this disability.				
2c. <i>Hearing:</i> the student has a lot of difficulty or is unable to participate	2			
and learn in class due to this disability.				

<sup>&</sup>lt;sup>17</sup> UNICEF (2015). Guide for Including Disability in Education Management Information Systems, New York:

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<sup>&</sup>lt;sup>18</sup> 'No difficulty' is included although it constitutes no probable dropout risk, because (i) it can be used to identify schools which are able to accommodate children with disabilities, and (ii) it can be used to generate statistics on children by type of disability, not just for those children with disabilities who have difficulties participating and learning in class. See also an alternative way of collecting similar data but aggregated at the school level below, based on the classification by Mont, D. (2013).

3a. <i>Gross motor</i> (e.g., walking or climbing steps): the student has <u>no</u>	0
difficulty participating and learning in class due to this disability.	
3b. <i>Gross motor</i> (e.g., walking or climbing steps): the student has <u>some</u>	1
difficulty participating and learning in class due to this disability.	
3c. <i>Gross motor</i> (e.g., walking or climbing steps): the student has a lot	2
of difficulty or is unable to participate and learn in class due to this	
disability.	
4a. <i>Fine motor</i> (e.g., writing or fastening clothes): the student has <u>no</u>	0
difficulty participating and learning in class due to this disability.	
4b. Fine motor (e.g., writing or fastening clothes): the student has some	1
difficulty participating and learning in class due to this disability.	
4c. Fine motor (e.g., writing or fastening clothes): the student has a lot of	2
difficulty or is unable to participate and learn in class due to this disability.	
5a. <i>Intellectual:</i> the student has no difficulty participating and learning in	0
class due to this disability.	
5b. <i>Intellectual:</i> the student has some difficulty participating and learning	1
in class due to this disability.	
5c. <i>Intellectual:</i> the student has a lot of difficulty or is unable to	2
participate and learn in class due to this disability.	
6a. <i>Communication</i> (understanding and being understood by others): the	0
student has <u>no difficulty</u> participating and learning in class due to this	
disability.	
6b. <i>Communication</i> (understanding and being understood by others): the	1
student has some difficulty participating and learning in class due to this	
disability.	
6c. <i>Communication</i> (understanding and being understood by others): the	2
student has a lot of difficulty or is unable to participate and learn in class	
due to this disability.	
7a. Behaviour and socialization: the student has no difficulty participating	0
and learning in class due to this disability.	
7b. <b>Behaviour and socialization:</b> the student has some difficulty	1
participating and learning in class due to this disability.	
7c. <b>Behaviour and socialization:</b> the student has a lot of difficulty or is	2
unable to participate and learn in class due to this disability.	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1

Finally, the following risk indicators could be generated automatically for each student:

- Automatic from EMIS: Student is repeating or has repeated a grade (1 point)
- Automatic from EMIS: Student is at least two years older than the expected age
  for his or her grade, but has not repeated a grade (to distinguish it from the
  above indicator) (1 point)
- Automatic from EMIS truancy levels:
  - o 10-15% days missed during the current school year for no legitimate

reason (1 point)<sup>19</sup>

- 16-20% days missed during the current school year for no legitimate reason (2 points)
- 21% or more days missed during the current school year for no legitimate reason (3 points)

#### Truancy indicator

It is very important for schools to accurately register and closely monitor truancy. Prolonged and chronic truancy are strong signs of disengagement from school and among the surest signs that a student is about to drop out. Truancy is therefore a key indicator for monitoring dropout risk. Besides including truancy as part of the dropout risk index, it is recommended the above categories (10-15% days missed, 16-20% days missed, 21% or more days missed) is also included as a separate indicator which can be reported on by the EMIS. Please note that the truancy indicator refers to unjustified absenteeism.

#### Dropout risk (or "vulnerability") index

- **Student-level risk index:** The EMIS would automatically generate risk indexes based on this information at the school level, to identify students who are most at risk of dropping out. These will often also be the most vulnerable children, facing various kinds of problems (poverty, difficult living conditions, disability, discrimination, violence in the home, etc.).
- School-level risk index: It is further proposed that the index is aggregated to create a risk index for the entire school. Two school-level risk indexes could be created:
  - Total risk index: sum of risk indexes for all students in school)
  - Average risk index: total risk index / number of students in school

This information combined would enable one to identify the most problematic schools in terms of students with high risk of dropout, who face the most difficulties. These are schools which are therefore most in need of additional support, for example, through additional teachers, support from a school mediator, social workers and/or NGOs, and/or additional financial support. The kind of support needed can be determined through a more in-depth analysis of the risk indicators at school level, and of course through visits and communication with the school staff.

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<sup>&</sup>lt;sup>19</sup> This first category is similar to the Netherlands system where truancy needs to be reported to the authorities if it is at least 16 hours (around 3 school days) within the past 4 weeks – which is around 15% of days missed.

# Appendix 1: Four Ministry Cooperation Agreement, Albania



#### REPUBLIC OF ALBANIA

Minis	try of	Minis	stry of	Ministry	of Labor,	Ministry	of Health
Education	on and	Interior		Social A	ffairs and		
Scie	ence			Eq	ıual		
				Oppor	tunities		
No.	Prot,	No.	Prot,	No.	Prot,	No.	Prot,
dated		dated		dated		dated	

COOPERATION AGREEMENT AMONG
MINISTRY OF EDUCATION AND SCIENCE,
MINISTRY OF INTERIOR,
MINISTRY OF HEALTH
AND
MINISTRY OF LABOR, SOCIAL AFFAIRS AND
EQUAL OPPORTUNITIES

# "ON IDENTIFICATION AND REGISTRATION IN SCHOOL OF ALL COMPULSORY SCHOOL AGE CHILDREN"

Based on Article 57 of the Constitution of the Republic of Albania, Law no. 69/2012, dated 21.06.2012 "On Pre-university Education in the Republic of Albania", the Ministry of Education and Science, the Ministry of Interior, the Ministry of Health and the Ministry of Labor, Social Affairs and Equal Opportunities, hereinafter referred to as "parties", enter into this Agreement for coordination of work for the identification and registration in school of all compulsory school age children.

#### I. Scope of the agreement

The scope of this agreement is:

- 1. Involvement of all the following institutions in accomplishing basic education attendance by all children of compulsory school age.
- 2. Coordination of the Regional Education Directorates (RED) / Education

Offices (EO) and schools with the local government basic units, the Registry Offices, the Child Protection Units and the Health Centers for enrolling children in compulsory education.

#### II. Purpose of the agreement

This agreement aims at identification and school enrollment of all children of compulsory school age.

#### III. Common obligations

- 1. Parties communicate constantly through employees charged with this responsibility.
- 2. Parties organize joint meetings every six months, to analyze problems encountered and to provide solutions to them.
- 3. Parties shall send each other information in hard and/or electronic copy about problems that arise during the implementation of the Agreement.

#### IV. Obligations of the parties

#### IV.1 Obligations of the Ministry of Education and Science

The Ministry of Education and Science charges the REDs/EOs and basic education schools with the following tasks:

- The REDs, as regards the territory where their EOs are not included, and the EOs compile a single list of names of the children who should start the first grade in the next school year, by matching the two lists submitted from the relevant registry office and the pertaining medical center.
- 2. RED and EO send the list provided for <u>in paragraph 1</u> to all the schools in their jurisdiction (public and private) <u>within May.</u>

- 3. At the end of the registration period in public schools, the principals of basic education schools, both public and private, send to the relevant RED/EO the lists with the names of the children enrolled in their schools.
- 4. REDs/EOs compile the list of children who are not enrolled either in public or private schools in their jurisdiction.
- 5. REDs/EOs shall, by September, send the list referred to in point 4, to the reeve/elder of the area concerned and to the local police inspector.
- 6. REDs/Eos, <u>until October 15</u> send to public schools the data collected by the reeves and the local police inspectors.
- 7. Public schools identify children who belong to their area, and by the end of October of the new academic year undertake enrollment of the pupils and officially inform the respective RED/EO.
- 8. REDs/EOs and schools collaborate with non-profit organizations operating in the field of education, for the implementation of Law No. 69/2012, dated 21.06.2012 "On pre-university education in the Republic of Albania", for compulsory education.

#### IV.2 Obligations of the Ministry of Interior

The Ministry of Interior charges the registry offices, reeves and local police inspectors with the following tasks:

- 1. In April, the Registry Office sends to REDs, as regards the territory where its EOs are not included, and to EOs, the list of names of the children who should start the first grade in the next school year, given the date of the beginning of the school year.
- 2. The reeve finds in the list of children not yet enrolled, which is sent to him by RED/EO, children belonging to the area he covers and who must

enroll in the first grade in a school of the RED/EO. The names of the children are associated with their locations.

3. The Police Inspectorate finds in the list of children not yet enrolled, sent by RED/EO, those children who belong to the area covered by it and sends to the relevant RED/EO the names of the children together with their locations.

#### IV.3 Obligations of the Ministry of Labor, Social Affairs and Equal Opportunities

The Ministry of Labor, Social Affairs and Equal Opportunities, through the State Agency for Child Rights Protection, charges the Child Protection Unit at the municipality/commune with the following duties:

- 1. To collaborate with schools and help identify children who have reached the age of compulsory education, but do not attend school.
- 2. To cooperate with public schools for enrolling children who have reached the age of compulsory education, but do not attend school and officially inform respective RED/EO.

#### 1.4 Obligations of the Ministry of Health

- In April, the relevant health center sends a list of the children who should start the first grade in a given school year to the Department of Public Health, which it depends on, taking into account the date of the beginning of this school year.
- In April, the Department of Public Health sends to RED, as regards the territory that is not included in its EOs and to EOs, the list of the names of the children who should start the first grade in a given school year.

#### V. REPEAL OF ACTS

Any previous agreements made between the parties, which run contrary to this Agreement, shall be repealed.

## VI. DURATION, SIGNING AND RESOLUTION OF AGREEMENT

- 1. The Agreement is signed for a four year period: xx August 2013 to xx July 2017.
- 2. The agreement is signed in quadruplicate, in Albanian.
- 3. The agreement can be resolved upon written request to each of the signatory parties, but only after 30 days notice.

Signed on	
MINISTER OF EDUCATION AND SCIENCE	MINISTER OF INTERIOR
< Name of Minister >	< Name of Minister>
MINISTER OF HEALTH	MINISTER OF LABOUR, SOCIAL AFFAIRS AND EQUAL OPPORTUNITIES
< Name of Minister >	< Name of Minister >

UNICEF România Bd. Primăverii Nr. 48 A, Sector 1, cod poştal 011975, Bucureşti, România Email: bucharest@unicef.org Website: www.unicef.ro

