

TWINNING CONTRACT

AM/14/ENP/ST/15

Strengthening of the National Statistical System of Armenia – Phase II



MISSION REPORT

on

Demographic Statistics

Activity 2.5: Methodology for vital statistics and increased use of electronic data II

Mission carried out by

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National Statistical Service
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List of Abbreviations

BC	Beneficiary country
EU	European Union
MS	Member state
NSSRA	National Statistical Service of the Republic of Armenia
RA	Republic of Armenia

1. General comments

This mission report was prepared within the Twinning Project “Strengthening of the National Statistical System of Armenia – Phase II”. This was the fifth activity in component 2 and the actions planned for this activity were carried out as scheduled.

The purposes of the mission were:

- Review of data collection and discussion on needed revisions;
- Continued review of methodology;
- Meeting with users of vital statistics

Thanks to the competence and the active participation of the Armenian counterparts, the mission provided a clear picture of the current situation and future possible developments to improve the quality of information collected on vital statistics.

For this reason the MS Experts would like to express their sincere gratitude to all staff and NSSRA employees met for the kind support and valuable collaboration they provided during this activity. The views and observations stated in this report are those of the MS Experts and do not necessarily correspond to the views of EU, NSSRA, Statistics Denmark and Istat.

2. Assessment and results

The discussion with BC highlighted that since the last mission relevant progress have been made. Vital statistics have been improved and updated with regard to data collection mechanisms (transition from paper sources to electronic), coverage, and data quality.

As for the update and improvement of methodology, the passage to the electronic system for vital registrations and data acquisition has been completed. Some fine tuning is still needed, especially in the file transmitted to NSSRA, but it is going to be realized during the next few weeks.

The documentation of the process related to the production of birth and death statistics has been prepared and finalized. Following this initial assessment, experts discussed with BC further improvements for the two methodological documents drafted and agreed that, following the same format, also documents on the production of marriage and divorce statistics should be produced.

The request of additional variables in the birth and death records has been transmitted to the Ministry of Justice, and that would increase information available to NSSRA for analysis and for data linkage.

Considering that vital statistics are closely interconnected to vital registration systems, it was agreed to devote special attention to the administrative context. Hence, a survey on rural communities secretaries was carried out to assess size and territorial distribution of the under coverage in registration of births and deaths at the local level, and results have been made available.

In addition to that, a first initiatives to raise awareness among civil registration officials have been realized: a desk calendar with pictures and figures was printed and is ready to be distributed. It aims to highlight the statistical use of the data collected and the importance of vital statistics.

Two training sessions were held. The first one was about data imputation procedures, with the aim of introducing NSSRA staff to advanced techniques of data editing and imputation for missing values. During this session, the main features of a specific software for data validation – implemented by Istat and available free of charge – were presented. The second training session concerned tools for demographic analysis and a discussion on interpretation of some of the main demographic indicators. All the staff of the Population census and demography division actively took part in the two training sessions.

In the framework of the e-government project, the Armenian Ministry of Health decided to start an electronic system to collect death certificates from the medical doctors. The previous process implied that each medical doctor would hand-write the cause of death in free format, on the paper certificate. At a later time, a specialized doctor hired by NSSRA would translate the cause of death into the proper code. With the new system, starting January 2017, each doctor is going to specify the cause and the code simultaneously with a guided procedure that guarantees by definition the consistency between the cause of death. Hence, by next January a major change will affect the coding procedure for causes of death. A representative of the Ministry of Health was met to discuss results of comparisons between the two methods in test areas. Even if partial, results show a clear possibility of a break in series of causes of death due to this new system. It is extremely important to ensure the possibility to continue the test also in 2017, and to plan new training sessions on coding for medical doctors.

An in-depth discussion about the publication of demographic data took place between experts and BC. Five main points for improvement were identified:

- Harmonize the length of time series and classifications (e.g. age classes)
- Elaborate new variables (e.g. Place of occurrence of death; birth order)
- Use maps to represent territorial distributions
- Expand the comment and the use of indicators, and highlight the main findings
- Include links to metadata, databases, and related publications

3. Conclusions and recommendations

Analyses on the under coverage of civil registration proved that the problem on birth and death registration exists but, as community secretaries have reported, missing registrations are an issue only in some rural areas (Ararat, Shirak and Tavush) and for few cases (about 24 births and 37 deaths). Results have been elaborated and summarized in the following table:

Table1: Reported number of non-registration events by Marzes and type of event. Year 2015

Marzes	Birth	Death
Aragatsotn	0	0
Ararat	23	15
Armavir	0	0
Gegharquniq	0	0
Lori	0	0
Kotayk	0	0
Shirak	0	13
Syuniq	0	0
Vayots Dzor	0	0
Tavush	1	9
Total	24	37

Quality checks on the consistency between the causes of death as coded with the old and the new system don't show a clear picture of the situation and don't allow to quantify the risks of the change in terms of quality level of the information collected. Measures taken by the Ministry of Health to strengthen the coding capacities of the local medical doctors could be essential but the effects of these measures should be verified before leaving the old system for the new one.

Data treatment and data analysis should be further reinforced to improve the production of statistical information on vital statistics by mean of specific trainings for the staff working on vital statistics. In particular, techniques to edit and impute missing data should be introduced in the production process in a systematic way, in order to ensure that this very important part of the process is carried out in a transparent, replicable and effective way.

The methodological reports that document the statistical process of the data production should be periodically update. The documents already available for births and deaths should be extended to document the process for marriage and divorce statistics.

Homework to be done until next (and last) mission in May 2017

Action	Deadline	Responsible person
Finalize the agreement with the Ministry of Justice on new variables to add	1 March 2017	NSSRA, Population Census and Demography Division
Find an agreement with the Ministry of Health on how and how long monitor the new coding system before leaving the previous one	1 March 2017	NSSRA, Population Census and Demography Division
Prioritize activities on seminars and training	1 January 2017	NSSRA, Population Census and Demography Division
Review the publications adopting the suggested points for improvement	1 March 2017	NSSRA, Population Census and Demography Division
Prepare documents on data sources and statistical processing of data on marriages and divorces	1 April	NSSRA, Population Census and Demography Division

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project AM/14/ENP/ST/15

31 Oct - 4 Nov 2016

Component 2: Demographic Statistics

Activity 2.5: Methodology for vital statistics and increased use of electronic data II

0. Mandatory results and benchmarks for the component

Mandatory results:

- Vital statistics improved concerning data collection mechanisms (transition from paper sources to electronic), coverage, timeliness and quality (July 2017)

Benchmarks:

- Methodology on vital statistics updated (October 2016)
- Improved vital statistics implemented and published (July 2017)
- Staff of NSSRA trained on issues related to vital statistics (July 2017)

1. Purpose of the activity

- Review of data collection and discussion on needed revisions;
- Continued review of methodology;
- Meeting with users of vital statistics

2. Expected output of the activity

- Implementation of new procedures to produce data defined;
- Meeting with users held;
- Possible elaborations and analyses to be published/provided to the most relevant users identified
- A lining up of work programme for the next activity:
 - 2.8: Follow-up on achievements and recommendations for the future (May 2017)

3. Participants

NSSRA

Component leaders

- Mr. Gagik Gevorgyan, Member of State Council on Statistics of RA
- Ms. Karine Kuyumjyan, Head, Population Census and Demography Division

Other staff

- Ms. Anna Tokhatyan, Chief specialist, Population Census and Demography Division
- Ms. Armine Avetisyan, Leading specialist, Population Census and Demography Division
- Ms. Anna Grigoryan, 1st category specialist, Population Census and Demography Division
- Ms. Susanna Azatyan, 2nd category specialist, Population Census and Demography Division

MS experts

Ms. Maria Pia Sorvillo, Expert, Istat

Mr. Enrico Tucci, Expert, Istat

Other stakeholders taking part in the activity

Representatives from:

- Department of Civil Registrations, RA Ministry of Justice
- RA Ministry of Health
- Transactional e-Governance Development in Armenia, mr. Vahagn Mkhitarian
- Passport and Visa Department, RA Police
- State Economic University of Armenia

will also be invited.

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Annex 2: Programme for the mission

Time	Place	Event	Purpose / detail
Monday, morning (31/10) (11:00)	NSSRA	Meeting with BC Component Leader and BC Experts	To discuss the programme of the week Assessment of situation and presentation by BC of the work conducted since last mission, and presentation by BC of the expected outcome of current mission
Monday, afternoon (31/10)	NSSRA	Meeting with BC Component Leader and BC Experts	Review of the document content of „Collection, classification, processing and preparation of output tables of vital statistics” prepared by the relevant staff members
Tuesday, morning (1/11)	NSSRA	Training of staff	Training of the staff members on practical procedures of data imputation
Tuesday, afternoon (1/11)	NSSRA	Meeting with BC Component Leader and BC Experts	Discussions on the improvement and finalization of the document
Wednesday, morning (2/11)	NSSRA	Training of staff	Training of the staff members on Demographic theory and practice
Wednesday, afternoon (2/11) (15:00)	NSSRA <i>In meeting room</i>	Meeting with stakeholders	Meeting with the representatives of the Civil Registration Department of the RA Ministry of Justice and E-Governance System of RA, responsible for Civil Status Register
Thursday, morning (3/11) (11:00)	NSSRA <i>In Karine's room</i>	Meeting with stakeholders	Meeting with the representatives of the Health Ministry about causes of death registration to assess the new coding system
Thursday, afternoon (3/11)	NSSRA	Meeting with BC Component Leader Ad-hoc meetings	Discussion of the content of output information: possible improvements of currently published results also according to newly created database from the electronic system.
Friday, morning (until 2:00 pm) (4/11)	NSSRA	Meeting with BC Component Leader	Presentation of MS Experts' findings and agreement on the reached conclusions Final clarifications with BC Experts, preparation of report and presentation for BC Project Leader of conclusions and recommendations for the next activity

Annex 3. Persons met

NSSRA:

- Stepan Mnatsakanyan, President of the NSSRA
- Anahit Safyan, Member of the State Council on Statistics of RA
- Karine Kuyumjyan, Head of Population Census and Demography Division
- Anna Tokhatyan, Population Census and Demography Division
- Narine Grigoryan, Population Census and Demography Division
- Susanna Azatyan, Population Census and Demography Division
- Anna Grigoryan, Population Census and Demography Division

External stakeholders:

- Diana Andreasyan, Head of Health Information-Analytical Center of National Institute of Health, Ministry of Health,

RTA Team:

- Peter Bohnstedt Anan Hansen, Resident Twinning Adviser
- Liana Atoyán, RTA Assistant
- Anush Poghosyan, RTA Language Assistant