

**SEMINAR TO INTRODUCE MODIFICATIONS
TO THE HEALTH INFORMATION SYSTEM FOR
IMMUNIZATION AT THE SERVICE DELIVERY
LEVEL (LEVEL I), LVIV OBLAST, UKRAINE**

December 14-20, 1997

Mark Weeks

BASICS Technical Directive 802-UK-01-061
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ACRONYMS

BASICS	Basic Support for Institutionalizing Child Survival
DPT	Diphtheria Pertussis Tetanus
HMIS	Health Management Information System
HIS/MRP	Health Management Information System/Management Reform Program
MIS	Management Information System
MOH	Ministry of Health
OPV	Oral Polio Vaccine
PSC	Personal Services Contractor
RPM	Rational Pharmaceutical Management
SES	Sanitary Epidemiologic Station
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

This trip involved assisting the Lviv Oblast SES and the Ukraine Infectious Disease Program staff with a seminar on introducing the changes in the oblast's health management information system (HMIS) for immunizations to the epidemiologists and pediatricians from the rayons

Twenty four of the 26 rayons and the Lviv City rayon were represented at the two day seminar for a total of 70 participants. The total cost for the seminar amounted to \$2,448 which includes \$745 for 1,950 copies of the training manuals. By the end of the seminar most participants seemed enthusiastic about trying the revised approach. Several participants independently expressed appreciation for the unique opportunity to meet together and to discuss the proposed changes to the HMIS.

The USAID Health PSC would like to initiate "roll out" of the program to Zhytomir Oblast, perhaps as early as July. She also emphasized the importance of coordinating with other USAID programs wherever appropriate. However, any expansion beyond or ahead of the work plan needs to be considered carefully by the program team.

During January 1998 the program field coordinator and the Lviv working group will develop the second (rayon) and third (oblast) level training materials and manuals. This work should be completed near the beginning of February. The monitoring training for the pilot rayon will take place approximately in mid February.

PURPOSE OF THE VISIT

The purpose of this trip was to assist the Lviv Oblast SES and the Ukraine Infectious Disease Program staff with a seminar on introducing the changes in the health management information system (HMIS) for immunizations to the epidemiologists and pediatricians from the rayons.

BACKGROUND

During a seminar in November 1997, the Lviv Oblast working group for the USAID Health Information System and Management Reform Program (HIS/MRP) decided to adopt the approach for local-level monitoring which was developed in Kyrgyzstan. The working group then formed a sub-group to revise their reporting forms and training to develop materials according to the needs of the oblast. Because of the MOH's decision to implement any reporting changes by January 1998, the oblast felt that a seminar should be conducted in December to introduce the changes to the epidemiologists and pediatricians in the rayons.

The modifications to the HMIS for immunization concern the registration of children, planning records, contraindication to immunization, vaccine supply, refrigerator temperature records, and

the monthly immunization reporting form. The modifications streamline and standardize the collection, reporting, and analysis of data, yet do not represent major changes in the MOH's information needs.

More detailed background information on the Ukraine HIS/MRP can be found in previous trip reports ("Ukraine Infectious Disease Program Planning Visit" TR No 732, "Follow Up Visit for Planning USAID's Ukraine Infectious Disease Program, Health Information System and Management Reform," TR No 737, and "Trip Report, Ukraine, September 6 -20, 1997 ")

TRIP ACTIVITIES

14 December 1997	Arrived in Kyiv
15 December 1997	Met with PATH/Kiev staff and traveled to Lviv
16 December 1997	Met with Lviv Oblast SES and prepared for the seminar
17 - 18 December 1997	Participated in the HIS/MRP seminar
19 December 1997	Debriefed with oblast SES and USAID
20 December 1997	Departed Kyiv

OBSERVATIONS AND RECOMMENDATIONS

- The first-level training manual, "Reporting and Recording Documentation and Monitoring of Work at Immunization Points," which was distributed to participants at the seminar, provides excellent documentation for promoting a more effective and efficient information system for immunization services (Appendix C)
- Twenty four of the 26 rayons and the Lviv City rayon were represented at the two-day seminar for a total of 70 participants. The total cost for the seminar amounted to \$2,448 which includes \$745 for 1,950 copies of the training manuals. Other costs included lodging, meals, and transportation for the participants, and renting the meeting hall.
- Although there was some dissatisfaction during the first day over changing the long established practices, by the end of the seminar most participants seemed enthusiastic about trying the revised approach. Several participants independently expressed appreciation to the BASICS technical officer for the unique opportunity to meet together (epidemiologists and pediatricians) and to discuss the proposed changes to the HMIS. The oblast's chief epidemiologist and chief pediatrician were very supportive throughout the seminar.
- The modified forms and procedures will be introduced to the immunization facilities in the rayons during January. **The program field coordinator and the Lviv working**

group should closely monitor the quality and effectiveness of this rapid implementation of the revised forms and procedures

- The USAID Health PSC, who attended the second day of the seminar, would like to initiate "roll out" of the program to Zhytomir Oblast, perhaps as early as July 1998. She also emphasized the importance of coordinating with other USAID programs wherever appropriate. One example for collaboration mentioned was the Rational Pharmaceutical Management (RPM) project in Zhytomir Oblast. Although progress in Lviv has been faster than anticipated, the activities implemented thus far have already been field tested and revised extensively. However, activities for improving disease surveillance are not yet as thoroughly developed and will probably take more time to implement. **Any expansion beyond or ahead of the work plan needs to be considered carefully by the program team**
- During our debriefing with the chief epidemiologist for the oblast SES we mentioned the forthcoming seminar in March concerning disease surveillance. The chief epidemiologist emphasized the importance of including national MOH representatives, especially the "infectionists," for revising or standardizing case definitions, one of the primary objectives of the workshop. He would also like to see the final agenda about four weeks prior to the seminar.
- The third and fourth level Kyrgyz MIS manuals (rayon and oblast) were received in Kyiv. During January 1998, the program field coordinator and the Lviv working group will be adapting and translating the Kyrgyz materials. The second (rayon) and third (oblast) level training materials and manuals for Lviv Oblast should be completed near the beginning of February. At this point, the monitoring training for the pilot rayon should take place approximately in mid-February.

SUMMARY OF RECOMMENDATIONS

- Any decision to expand beyond or ahead of the work plan needs to be considered carefully by the program team.
- The program field coordinator and the Lviv working group should closely monitor the quality and effectiveness of this rapid implementation of the revised forms and reporting procedures.
- The program team should finalize the objectives and content for the Lviv Oblast seminar concerning disease surveillance as soon as possible. The seminar is scheduled for March 1998.

FOLLOW-UP REQUIRED

- The program coordinator and the Lviv Oblast working group will adapt and translate the second- and third-level materials during January 1998. BASICS will provide technical input via telephone and will participate in the implementation of rayon training on monitoring in approximately mid-February.

APPENDIXES

APPENDIX A
Persons Contacted

Persons Contacted

USAID/Kyiv

Catherine Fischer

Health PSC

Lviv Oblast

Dr Roman Pavliv

Chief, SES

Dr Angelina Rusina

Chief Epidemiologist, SES

Dr Galina Romanuk

Epidemiologist, SES

PATH/Kyiv

Dr Dmitry Tishenko

Director, Kyiv

Dr Anton Luchitsky

Field Coordinator

Dina Nemnaya

Interpreter

Management Sciences for Health, Zhytomir Project

Olya M Duzey

Drug Management Program

APPENDIX B
**MOH Decree for the December 1997 Seminar in Lviv Oblast to introduce the changes in
the Health Information System (English Translation)**

(state emblem)

MINISTRY OF HEALTH OF UKRAINE

252021, Kyiv, Grushevskogo str , 7
tel 293 61-94, 293-24 39, teletype 131189 **ЕФІР**

11 12 97 № 5 09 19/904

№ _____ of _____

To Chief of Health Department
of Lviv Oblast
State Administration
M K Hobzey

To Chief State Sanitary
Doctor of Lviv Oblast
R M Pavliv

To perform the decree of the MoH of Ukraine of the 28 10 97 № 376 the MoH Working Group headed by the deputy chief state sanitary doctor of Ukraine A G Padchenko and chief state sanitary doctor of Lviv oblast R M Pavliv with the participation of specialists from international organizations PATH, BASICS, CDC, in the frames of the project "Infectious Diseases in Ukraine Health Information System and Management Reform" has developed an improved recording and reporting documentation and monitoring of vaccination points' activity Also the Training Manual on introduction of these forms into practice of medical institutions providing first medical aid has been developed

In this connection I propose in December of current year to arrange a seminar for epidemiologists of rayon(city) SES and chief rayon pediatricians of the oblast about probation of the developed forms in rayons of Lviv oblast starting from January 1998

I entrust the analysis of the efficacy and expediency of their further implementation to the specialists of the Working Group headed by the chief state sanitary doctor of Lviv oblast R M Pavliv

First Deputy Minister
of Ministry of Health of Ukraine,
Chief State Sanitary
Doctor of Ukraine

(personal signatory) L S Nekrasova

APPENDIX C

**Training Manual On Reporting & Recording Documentation and Monitoring of Work at
Immunization Points (English Translation)**

Ministry of Health of Ukraine

TRAINING MANUAL

ON REPORTING & RECORDING DOCUMENTATION AND
MONITORING OF WORK AT IMMUNIZATION POINTS

LEVEL I

*Ukraine Infectious Diseases Program,
Health Information Systems and Management Reform*

USAID/Kyiv

This manual has been prepared by the Ukraine MoH Working Group headed by A G Padchenko, Deputy Chief State Sanitary Doctor of Ukraine, R M Pavliv, Chief State Sanitary Doctor of Lviv Oblast, G B Romaniuk, Lviv Oblast SES Epidemiologist with technical assistance of USAID/BASICS and PATH

The working group also included

- | | |
|------------------|--|
| A A Rusina | - Chief of Epidemiologic Dept , Lviv Oblast SES, |
| V P Dumsky | - Chief State Sanitary Doctor of Lviv Railway, |
| A I Mostiuk | - Professor, Chief of the Dept of Children's Infectious Diseases, Lviv Medical University, |
| B Ya Nikolaichuk | - Chief Pediatrician, Oblast Health Administration, |
| I I Bortnytska | - Research Officer, Lviv Institute of Epidemiology and Hygiene, |
| O A Gladkaya | - Chief of Diphtheria Laboratory, Lviv Institute of Epidemiology and Hygiene, |
| S V Rubanov | - Epidemiologist, K-Buzka Rayon SES, |
| N P Orlova | - Chief of Epidemiologic Dept , Chervonograd town SES, |
| I A Zrailo, | - Chief of Epidemiologic Dept , Striy town SES |
| A S Pavliv | - Chief of Epidemiologic Dept , Frankivska District SES, Lviv, |
| A L Sorakalit | - Chief of Epidemiologic Dept , Galytska District SES, Lviv, |

The Working Group expresses gratitude to L S Nekrasova, the Chief State Sanitary Doctor of Ukraine for support of the project

The Ministry of Health of Ukraine and the Working Group is grateful to the US Agency for International Development (USAID) for the opportunity to realize plans on elaboration and introduction of the new information system as well as to USAID/BASICS, the US Center for Disease and Prevention (CDC) and the Program for Appropriate Technology in Health (PATH) for their support and technical assistance

ACRONYMS

USAID	- US Agency for International Development
BASICS	- Basic Support for Institutionalizing Child Survival
PATH	- Program for Appropriate Technology in Health
CDC	- US Centers for Disease Control and Prevention
MoH	- Ministry of Health
SES	- Sanitary-Epidemiologic Station
MIS	- Management Information System
FAP	- Feldsher & Midwife station
DoB	- Date of Birth
TB	- Tuberculosis
BCG	- Bacillus, Calmette and Guerin Vaccine
DPT	- Diphtheria, Pertussis and Tetanus Vaccine
DT	- Diphtheria and Tetanus toxoid combination
Td	- Diphtheria and Tetanus toxoid
d	- Diphtheria toxoid
T	- Tetanus toxoid
ZVP	- Report on Immunization practice

IMMUNIZATION POINT

(FAP, v ambulatory, district hospital, pediatric and therapeutic districts)

RECORD-KEEPING DOCUMENTATION

1 1 RECORD BOOK FOR REGISTERING CHILDREN UNDER 15 YEARS BY YEAR OF BIRTH

The Record-Book for registering children is filled in regularly on a basis of censuses performed in March and October and on children's birth, death, leaving or arrival to a health care setting

Children in the Record-Book (1 1) are grouped by the year of birth (1997, 1996, etc), each age group (year) has its own page in the Record-Book (1 1)

Every newborn or arriving at a district child should be registered in the Record-Book (1 1) in accordance with his year (date) of birth under the definite registration number first come the last two figures of the child's year of birth (for instance "97") and then - the ordinal number in the Record-Book (1 1) (the registration number will look like 97/08, 95/12, 92/41, etc) This registration number should also be written on all other child's records - 112, 063 and in the Record-Book for Monthly Planning and Registration of Immunizations

In case a child arrives with his own forms (112, copy of 063) on which a registration number is already stated, the health worker should assign a new number in accordance with the ordinal number in Record-Book (1 1) of the setting and use the new registration number on these forms

The date of a child's leaving or arrival to the setting should be stated in the column "*arrived/left*" Whenever possible, one should also indicate the address, where the child has arrived from or is leaving for

In case a child is moving to another area for permanent residence or dies - his ordinal number will be left and will not be assigned to other children

Once a year (in October) the annual "Population by Age" report (1 2) is compiled on a basis of the Record-Book for registering children and Family Census

1.2 POPULATION BY AGE REPORT

(health care setting) _____ (date) _____

Age groups	Year of birth	Population
under 1	*	
1	1996	
2	1995	
3	1994	
4	1993	
5	1992	
6	1991	
7	1990	
8	1989	
9	1988	
10	1987	
11	1986	
12	1985	
13	1984	
14	1983	
TOTAL 0-14y11mo29d		
15	1982	
16	1981	
17	1980	
TOTAL 15-17y11mo29d		
18	1979	
19	1978	
20-29	1968-1977	
30-39	1958-1967	
40-49	1948-1957	
50-59	1938-1947	
60+	up to 1937 incl	
TOTAL 18+		
TOTAL		

* Compiled once a year (in Oct) on a basis of the data from the children register and family censuses

*Age group "under 1" includes children born during the 9 months of the current year + children born in the 4th quarter of the previous year

*Data from this record is the basis for making the Annual Prospective Plan for Immunizations

1 2 POPULATION BY AGE REPORT

The "Population by Age" report is compiled once a year (in October) on a basis of data from the Record-Book for registering children (1 1) and Family Census

The age group "Under 1" in the Report (1 2) includes children born during the 9 months of the current year + children born in the 4th quarter of the previous year

Data from the Population by Age Report is the basis for making the annual Prospective Plan for Immunizations (1 3) for immunization points

The accuracy of the Prospective Plan for Immunizations for the next year depends on the accuracy of data in the Report (1 2)

This Report (1 2) is submitted to health care settings in accordance with territorial subordination (v ambulatory\ v hospital\ central town or rayon hospital, town\rayon SES) once a year in October

1 3 PROSPECTIVE PLAN FOR IMMUNIZATIONS FOR THE NEXT YEAR

at _____ (level of immunization point)

	Type of immunization Vaccination	Target (No. of children)	REMARKS
1	Tuberculosis, Polio, Pertussis, Diphtheria, Tetanus under 1		AGE GROUP UNDER 1 (See Population by age report)
	BCG	over 1	Not immunized children over 1y
	Polio	over 1	Not immunized or not fully immunized children over 1 y
	DPT	over 1	Not immunized or not fully immunized children over 1 y
	DT	over 1	Not immunized or not fully immunized children over 1 y
2	Measles, Mumps, Rubella 1 year		AGE GROUP "UNDER 1" (See Population by age report)
	Measles	over 2	Not immunized or not fully immunized children over 2 y
	Mumps	over 2	Not immunized or not fully immunized children over 2 y
	Rubella	over 2	Not immunized or not fully immunized children over 2 y
3	Hepatitis B under 1		AGE GROUP "UNDER 1"
	others		
	BOOSTERS		REMARKS
1	DPT 4 (18 mo)		Children born in the first half of the current year + children born in the last half of the last year
	DT-3 (18mo)		Children immunized with DT
2	DT 6y		The whole relevant age group <u>not excluding</u> children with contraindications
3	Td 11 y		-/-
	Td 14 y		-/-
	Td 18 y		The relevant age group minus adolescents who received 3 doses during the mass immunization (in the past 3 years)
	Td adults		Adults 19-59 not immunized during the mass immunization
4	Polio 18 mo		Children born in the first half of the current year + children born in the last half of the last year
	Polio 3y		The whole relevant age group <u>not excluding</u> children with contraindications
	Polio 6y		-/-
	Polio 14y		-/-
5	BCG 7y		Relevant age group minus TB infected
	BCG 14y		Relevant age group minus TB infected
6	Measles 6y		The whole relevant age group <u>not excluding</u> children with contraindications or those who have had the disease
7	Rubella (girls 15y)		-/-

* Filled in once a year (Oct) on a basis of the Population by age Report

* Target group for children aged "over 1y" (for diphtheria, pertussis, tetanus, polio, TB and Hep B) and 'over 2y' (measles, mumps) includes children over 1 or 2 years, who are either not immunized or have not received the primary vaccination set Data for these groups are taken from individual children's forms 063

1 3 PROSPECTIVE PLAN FOR IMMUNIZATIONS FOR THE NEXT YEAR

The Prospective Plan for Immunizations for the next year is made once a year (in October) on a basis of the Population by Age report and forms 063

When making the Plan (1 3) for vaccination of children against pertussis, diphtheria, tetanus, polio, TB and Hepatitis B one must note 2 age groups "Under 1y" and "Over 1y" The data for the group "Under 1y" is taken from the appropriate age group of the Report (1 2) So the target group "Under 1y" for all above mentioned vaccinations will be the same When analyzing immunization coverage of children under 1y the number of actually born children should be taken into account

There are also two age groups "1 year" and "Over 2y" in the Plan (1 3) for immunization against measles, mumps and rubella Data for the age group "1 year" is taken from the line "Under 1y" in the Population by Age report, because next year (for which the Plan (1 3) is being made) they will be 1 year old So the number of children aged "1 year", that are planned for immunization against measles, mumps and rubella will be the same

The target group for children aged "Over 1y" (for diphtheria, pertussis, tetanus, polio, tuberculosis, hepatitis B) and "Over 2y" (for measles, mumps and rubella) includes children of the relevant age, who are either not immunized or have not completed the primary vaccination set Data for these groups of children is taken from individual children's forms 063

The number of all children eligible for the first booster against tetanus, diphtheria and pertussis must be indicated in the line "DPT-4" of the "BOOSTERS" column

The number of all children eligible for the first booster against diphtheria and tetanus only should be indicated in the line "DT-3" of the "BOOSTERS" column

name of the health care setting _____

Registration date _____ Name of children's setting (for organized children only) _____

1 NAME _____

2 DoB _____

3 HOME ADDRESS Town/village _____ street _____ house _____ apt _____

Oblast _____ Rayon _____

Notes about changes of home address _____

**C/I contraindications _____

TB immunization

	Age	Date	Dose	Lot#	Adv reaction (local)	Medical C/I** (date, reason)
Vaccination						
Booster						

Polio immunization

Vaccination			Boosters		
Age	Date	Lot#	Age	Date	Lot#

Diphtheria, pertussis and tetanus immunizations

	Age	Date	Dose	Lot#	Vaccine type	Adv reaction		Medical C/I** (date, reason)
						General	Local	
Vaccination								
Booster								

Measles, mumps and rubella immunizations

	Age	Date	Dose	Lot#	Vaccine type	Adv reaction		Medical C/I** (date, reason)
						General	Local	

Hepatitis B immunizations

	Age	Date	Dose	Lot#	Vaccine type	Adv reaction		Medical C/I** (date, reason)
						General	Local	
Vaccination								

Other immunizations

	Age	Date	Dose	Lot#	Vaccine type	Adv reaction		Medical C/I** (date, reason)
						General	Local	

Tuberculin tests

Date	Lot #	Results	Date	Lot#	Results	Date	Lot#	Results

Date of getting off the register _____ Reason _____ Signature _____

*The card is filled in at a child's health care setting or FAP when child is registered. It should be kept at the setting.

A certificate about vaccinations made is given when a child moves from a town or rayon. At the age of 15 the card is passed to the registry of adult polyclinic.

EXCHANGE CARD OF A NEWBORN (form 113)

Form 113 is filled in for every child born in a maternity home and reflects the initial immunization status of a child. On discharging a child from a maternity home a note about BCG-1 immunization should be made in form 113.

If a child does not get BCG-1 due to a certain reason (contraindication, etc) - this reason should be also stated in form 113. On discharging a child from a maternity home - form 113 is passed to the appropriate pediatric district where the child lives.

After receiving the child's form 113, a health worker should enter the data about the newborn in the Register of children (1 1) under a defined registration number and then start form 112 for this child (form 113 should be pasted into Form 112).

Form 063 is used for recording BCG-1 and subsequent immunizations. Registration number on a child's forms 112 and 063 should correspond to the registration number in the Record-Book (1 1).

CHILD DEVELOPMENT HISTORY (form 112)

Form 112 is assigned to every child in the district. It reflects the history of a child's development and all medical services provided to him as well as immunization status of a child.

PROPHILACTIC IMMUNIZATIONS RECORD (form 063-o)

Form 063-o is assigned to every newborn. It is needed for planning and recording of immunizations given to him. Form 063-o also contains information about a child's reaction following immunizations and about medical contraindications.

Forms 063-o are placed in accordance to children's year of birth and scheduled immunization dates by month.

On child's reaching the age of 15 form 063-o is passed to adult polyclinic registry for further recording of immunizations and formation of the register (card-index) of immunizations given to adults. Immunizations of adults that belong to other age groups are recorded in existing record-books for registering vaccinations of adults until the complete formation of the adult immunization register (card-index).

1 4 RECORD-BOOK FOR MONTHLY PLANNING AND REGISTRATION OF IMMUNIZATIONS

All prophylactic immunizations (vaccination and boosters) are planned at the end of a month on a basis of forms 063 Names of children eligible for the next immunization are entered in the Record-Book (1 4) in accordance with the immunization schedule If a child does not get its immunization in the given month due to a certain reason (for instance - refusal, medical contraindication, failure to appear), the reason should be stated in the Record-Book (1 4), too

Registration number of eligible children is taken from forms 063 and entered in the first column "№" This number must be identical to the number in record forms 112 and 063 of the given child The column "Actually done (date)" has two parts "under 1y (2y)" and "over 1y (2y)" As soon as immunization is given to a child a health worker should enter the date of immunization in the appropriate column depending on the age of the child on the day of immunization The Lot # and the dose of the used vaccine should also be indicated (in the column "Remarks")

In case of two immunizations per child per month - more than one line in the Record-Book (1 4) can be assigned to each child

If a child does not get immunized because of a medical contraindication - the type and duration of that contraindication should be stated in the column "Remarks" If a child has a temporary contraindication - he should be immunized next month

In case a child does not get immunized due to other reasons (absence of vaccine, did not appear, refusal) - these reasons should also be indicated in the column "Remarks"

On the day of immunization all the data is entered both in the appropriate columns of the Record-Book (1 4) and in forms 063

If a child is prescribed a long-term or permanent contraindication a health worker should register it in the Record-Book for long-term and constant contraindications (1 5)

At the end of every month a summary of given immunizations and prescribed medical contraindications is made, that is one should calculate the total number of immunizations given to children under 1y and over 1y (DPT, BCG, Polio, Hep B) and to children aged under 2y and over 2y (measles-1, mumps) and others

One should also calculate the total number of contraindications to DPT (1,2,3) prescribed during the given month - separately for children under 1y and over 1y

The Monthly report on immunization practice (ZVP, 1 8) is compiled on a basis of these summaries. Two sections of the report "Immunizations made" and "Contraindications to DPT" (temporary) can be filled in

One can continue using a YEARLY plan of immunizations by name if it exists at a health care setting - it can be equal to the Record-Book (1 4)

1 5 RECORD-BOOK FOR LONG-TERM AND CONSTANT CONTRAINDICATIONS

The Record-Book (1 5) is an obligatory document for every immunization point

Children with long-term (over 1 month) and constant contraindications to various immunizations are registered in the Record-Book (1 5)

The decision about prescribing or canceling a constant medical contraindication is only made by an Immunologic Commission

The decision about prescribing or extending a long-term contraindication is made at a meeting of the Commission on Contraindications of a central rayon hospital, town children's polyclinic\welfare center

In order to register children with long-term contraindications accurately (in case a contraindication is prescribed to the same child more than once) - a note "Repeated" should be made in the column "Remarks". A health worker should make notes about leaving or arrival of children with long-term or constant contraindications in that column, too

Every month the "Contraindications to DPT" section (long-term and constant) of the Report (1 8) is filled in on a basis of this Record-Book (1 5)

1 6 RECORD-BOOK FOR VACCINE FLOW

The Record-Book for vaccine flow (1 6) is filled in by vaccine type. There are separate pages in the Record-Book (1 6) for every type of vaccine. Flow of vaccines is recorded in the Record-Book on their reception, giving out or usage. When recording vaccine flow the amount of vaccine is stated in DOSES in all columns.

Besides regular recording of reception, issuing and usage of vaccines, a health worker responsible for vaccine recording should always calculate the balance of all vaccines on their reception, giving out or usage.

A health worker should keep recording the balance in the Record-Book (1 6) in order to be able to accurately tell at any moment (not only at the end of month) how much vaccine by type he has at the immunization point (store).

Notes in the Record-Book (1 6) should be made on the day of reception, issuing or usage of vaccines.

A health worker should be responsible not only for the quantity of vaccines but also for their quality (for instance, make sure that vaccines with approaching exp. date are used and issued in the first place).

At the end of every month a health worker should make an inventory of the amount of vaccines left in the immunization point refrigerator and check whether their amount corresponds to the balance of vaccines in the Record-Book (1 6).

The "Use of vaccines" section of the monthly report (1 8) is filled in on a basis of the data from the Record-Book (1 6).

1.7 TEMPERATURE REGISTRATION RECORD

		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
JAN	morning																													
	evening																													
FEB	morning																													
	evening																													
MAR	morning																													
	evening																													
APR	morning																													
	evening																													
MAY	morning																													
	evening																													
JUN	morning																													
	evening																													
JUL	morning																													
	evening																													
AUG	morning																													
	evening																													
SEP	morning																													
	evening																													
OCT	morning																													
	evening																													
NOV	morning																													
	evening																													
DEC	morning																													
	evening																													

P- refrigerator is turned off for defrosting
H- refrigerator is out of order (doesn t work)

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1 7 TEMPERATURE REGISTRATION RECORD

Record (1 7) is filled in daily to monitor the temperature at which vaccines are stored

A health care worker responsible for vaccines should monitor the temperature in the refrigerator where vaccine is kept and make notes of it in the Record (1 7) twice daily (at the beginning and at the end of a working day)

In case of power cut-off or breakdown of the refrigerator a health care worker should make appropriate notes in the Record (1 7) and take measures to ensure the proper temperature regimen for storage of the available vaccines

1.8 REPORT ON IMMUNIZATION PRACTICE

(health care setting), Period _____ Date _____

IMMUNIZATIONS GIVEN

PRIMARY VACCINATION			BOOSTERS			TOTAL IMMUNIZATIONS GIVEN
Vaccine	No of vaccinations given to children under 1y	No of vaccinations given to children over 1y	Vaccine	Age	No of boosters	
BCG (mat home)			BCG 2	7y		BCG
BCG (district)			BCG 3	14y		
Polio 1			Polio-4	18mo		POLIO
Polio 2			Polio 5	3y		
Polio 3			Polio 6	6y		
			Polio 7	14y		
DPT 1			DPT-4	18mo		DPT
DPT 2						
DPT 3						
DT 1			DT 3	18 mo+		DT
DT 2			DT	6y		
TUBERCULIN TESTS	No of tests	No of positive results				Td
Children			Td	11y		
Adolescents			Td	14y		
Adults			Td	18y		
TOTAL			d	adults		
			T	emergen		T
				others		
	Total vaccinations given to children aged 1	Total vaccinations given to children over 2y				
Measles-1			Measles 2	6y		(measles)
Mumps						(mumps)
Rubella			Rubella 2	15y		(rubella)
Other						

CONTRAINDICATIONS TO DPT

THE NO OF CONTRAINDICATIONS				
AGE GROUP	Temporary	Long-term	Constant	TOTAL
DPT-1	Under 1			
DPT-2	Under 1			
DPT-3	Under 1			

USE OF VACCINES (in doses)

VACCINE	BALANCE at the beginning of the period (doses)	RECEIVED (in doses)	GIVEN OUT (doses)	BALANCE at the end of the period (doses)	AMOUNT USED (doses)
	1	2	3	4	5
BCG					6=2+3-4 5
Polio					
DPT					
DT					
Td					
d					
T					
Measles					
Mumps					
Rubella					
Tuberculin					

1 8 REPORT ON IMMUNIZATION PRACTICE (ZVP)

Report on immunization practice (ZVP, 1 8) is the main recording and reporting document, which reflects the situation with immunizations at immunization points ZVP is compiled on a monthly basis

The data needed to fill in the first section of the Report "Immunizations Given" is taken from the Record-Book for monthly planning and registration of immunizations (1 4)

The "Contraindications to DTP" section is filled in on a basis of data from two record-books

- Record-Book for long-term and constant contraindications (1 5) On a basis of this Record-book "Long-term" and "Constant" columns can be filled in
- Record-book for monthly planning and registration of immunizations (1 4) Data from this record-book is used for filling the "Temporary" column

The "Use of vaccines" section is filled out with the data from the Record-Book for vaccine flow (1 6) by the type of specified vaccines

The above mentioned columns in the "Use of vaccines" section are needed for monitoring of the vaccine stock at various levels (health care settings, SES) and ensuring even distribution of vaccines as they are used at immunization points

This Report (ZVP) is at the same time a recording and a reporting document for immunization points It is made monthly in two copies From this level a copy of the ZVP is submitted to the appropriate health care setting according to territorial subordination not later than on the 3rd day of the following month

REPORTING DOCUMENTATION

The immunization point must submit three reports
Two of the three reports are only made once a year

1 2 Population by age report and

1 3 Prospective plan for prophylactic immunizations for the next year

The third report - "Report on Immunization Practice" (1 8) is made monthly It is a basis for monitoring of the whole immunization program and can serve as a signal for taking measures on elimination of detected mistakes and problems

Original reports must be kept at the health setting and copies are submitted to the next level according to territorial subordination

MONITORING SYSTEM

Health care settings that have subordinated immunization points and districts are the first level of immuno-prophylaxis management. Starting from this level summaries of reports are made. Settings at this level are responsible for completeness and correctness of filling out the reporting forms in their subordinate areas and for analysis of all indicators of immunization of the population.

Only three recording & reporting documents are submitted to the territorial SES from the level of ambulatory, children's polyclinic/welfare center:

- Population by age report (once a year) - 1 2
- Prospective Plan of immunizations for the next year - 1 3
- Monthly Report on immunization practice - 1 8

Health officials that manage health care settings are personally responsible for timeliness and quality of information in the reporting forms. Appropriate analytical worksheets for calculation of indicators and graphical analysis should be elaborated for every subordinated setting. The accuracy of the reported data will be analyzed by checking subordinated FAPs, therapeutic and pediatric districts according to the approved checklist and by analysis of the results in the recommended worksheets.

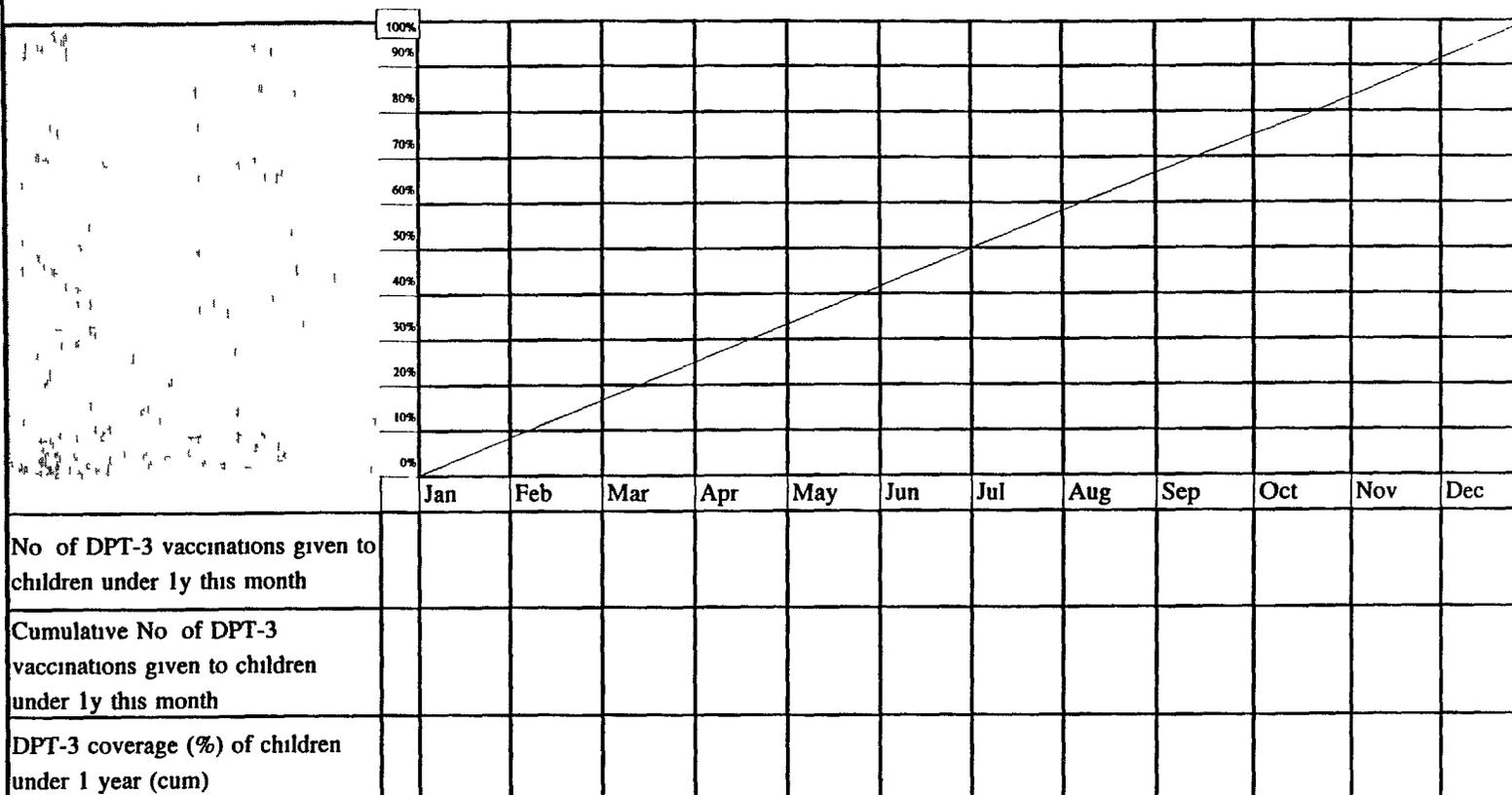
Monitoring of immunizations at this level should be based on the following indicators:

- 1) DPT-3 coverage of children under 1y (percentage),
- 2) DPT-3 coverage of children at the age of 5mo 29d (percentage),
- 3) DPT usage/wastage indicator

All the indicators should be calculated on a monthly basis.

DPT3 COVERAGE OF CHILDREN UNDER 1 YEAR in 199_.

Total no of children in the district _____



* No of children under 1 year - is taken from the Population by Age Report

* This record is kept at the level of rayon SES district polyclinic or ambulatory for monitoring of the performed work

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MONITORING OF DPT-3 COVERAGE OF CHILDREN UNDER 1 YEAR

If vaccination of children under 1y is organized properly the coverage should reach 96-97%, because the majority of children should get their DPT-3 immunization according to the immunization schedule before they are 6mo old

Only some children with justified long-term contraindications or extended intervals between DPT 1, 2 and 3 can complete the primary vaccination set at the age from 6mo to 1y

However, if a child does not finish vaccination at the age of 1 year - this issue should be discussed at the Oblast Immunologic Commission meeting and a decision about further tactics on immunization of this child should be made - whether he would be vaccinated in the hospital or a constant contraindication should be prescribed. The number of such children is not big if the immunization tactics is correct

A worksheet (see page 28) is filled in on a monthly basis to monitor DPT-3 coverage of children under 1y using the principle of "Cumulative calculations". This worksheet can be used at various meetings for making decisions

After calculation of the DPT-3 coverage cumulative percent every month a curve reflecting this percent should be built on the graph

After building the curve a health worker can easily compare DPT-3 coverage during the given period of time at his district with the target line reflecting the average percent of DPT-3 coverage needed to reach the goal until the end of the year

The case when the curve reflecting DPT-3 coverage during the given period of time is below the target line and does not approach the target line the next month should be regarded as a signal for the health worker to urgently detect the reasons behind the low coverage and take measures to eliminate the mistakes and increase the coverage

Cases of too high (above the target line) DPT-3 coverage of children under 1 year should be analyzed bearing in mind the number of actually born children. They can speak about either wrong definition of the target group "Under 1y" or reflect the difference in the number of children born monthly

MONITORING OF TIMELINESS OF DPT-3 COVERAGE OF CHILDREN UNDER 1 YEAR in 199_____

	100%												
	90%												
	80%												
	70%												
	60%												
	50%												
	40%												
	30%												
	20%												
	10%												
	0%												
		Last year						Current year					
		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
No of children born in the specified month													
Current year \longrightarrow		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Of them - no of children who finished primary immunization set at the age of 5mo 29d													
Coverage with DPT-3 at 5mo 29d, %													
* Kept at the level of rayon, polychmic or v ambulatory for monitoring of the work and filled in at the end of every month of the current year													

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MONITORING OF TIMELINESS OF THE PRIMARY VACCINATION (DPT-3) AT THE AGE OF 5 MONTHS 29 DAYS

The timeliness indicator is important for assessing immunization of children of the first year of life provided that it is accurate. Analysis of this indicator requires comparison of the data about the number of children born 5 months prior to the reported month in the village/town/raion with the number of the registered children eligible for DPT-3 that month at the age of 5mo29d and the number of DPT-3 performed according to the data from forms 063 and the Record-book for monthly planning and registration of immunization. One should note that the number of children born in the given month can differ from the number of children recorded in the civil register (parents can register the newborns later due to a number of reasons). Another factor that should be taken into account is migration of children - children registered in one area can be in another area for a long period of time, where they can get registered and immunized. As a rule migration from urban areas to rural areas increases in summer and autumn. Under these circumstances and proper coordination between health care settings in a raion the number of children immunized with DPT-3 at 5 mo 29d at FAPs can be bigger than the number of children registered in the village council, whereas their number in towns can be smaller, however this difference will be smoothed in the total line.

The quantitative analysis of this indicator is made starting from the level of a town children's polyclinic and v ambulatory by physician's district calculating the percentage of children who received DPT-3 in time. Children born in January should get DPT-3 in June-July, etc.

The information about the number of immunized among eligibles for DPT-3 is submitted to SES, information about the number of not immunized children is submitted to the chief pediatrician of a town/raion indicating the reasons.

If the indicator of timeliness of immunization in a town/raion/health care settings is low and it remains low during several months (one quarter) - urgent measures should be taken to improve the situation. For instance, one should look from the children register whether the child's place of temporary residence is known, whether health worker of the polyclinic/FAP is notified. In case a child moves from the raion - whether parents have been informed about immunization schedule of the child. If the number of refusals is big - one should go to the field and try to meet the parents. In case of a big number of contraindications - one should go to the spot and study their justification.

DPT-3 coverage at 5mo 29d should be analyzed for every particular month (not cumulative) with regard to concrete registered children. The reasons are the general decrease in the birthrate, the differences in the number of newborns by months of the year, existing areas where no children can be born during a month.

DPT VACCINE USAGE INDICATOR

Health care setting managers should know the amount of vaccine used per number of immunizations made at every immunization point they are responsible for

DPT vaccine usage has been chosen as a marker, which can indirectly speak about problems related to immunization of children. It should be calculated on a quarterly basis.

If this indicator is too low (≤ 1) - either data can be inaccurate due to not proper recording of vaccine usage or children do not get immunized properly.

On the other hand if the indicator of vaccine usage is too high (i.e. > 1.5 for DPT) - this may have been caused by improper organization of days for immunization, not adherence to the temperature storage regimen, improper recording of vaccine usage. Vaccine usage indicators should be compared between similar immunization points (separately for FAPs, v ambulatories, district hospitals and separately for town children's polyclinics/welfare centers).

Health care setting managers should know how vaccine was used, however they should be cautious when interpreting this data. Urgent measures should be taken if the vaccine usage indicator gets unreasonably high or low.

Example of calculation of the vaccine usage indicator

30 doses of DPT were used at FAP 1 during a quarter. 22 immunizations with DPT (1-4) were made.

Vaccine usage indicator = $30 / 22 = 1.36$

CHECKLIST FOR EVALUATION OF THE WORK AT IMMUNIZATION POINTS

PLANNING

1 Are children population records reliable and complete?

- ⇒ Check if the Children Register is filled properly (1 1), if censuses are made twice a year for every age group (March and October),
- ⇒ Make sure forms 112\113 (child's development history/exchange card of a newborn) for children under 1y are available,
- ⇒ Presence of notes about leaving or arriving a child at a district for permanent residence (by pen) or temporarily indicating the period (by pencil), Check if form 112 is available for temporarily arrived children,
- ⇒ Check whether the registration number in the Children Register (1 1) corresponds to the number on forms 112 and 063,

2 Is a record-book for recording immunizations of adults available, is there a note about annual census and lines to allow additions in the future?

3 Has the annual prospective plan of immunizations been made correctly?

- ⇒ Availability of the population by age report (1 2),
- ⇒ Compare every target age group of children (by type of immunization in accordance with immunization schedule) with the Children Register (1 1), form 063 and Population by age report (1 2),
- ⇒ Check whether adolescents and adults are included in the immunization plan on the basis of the Record-book for registering immunizations of adults and the Population by age report (1 2)

IMMUNIZATION PERFORMANCE CONTROL

4 Is the data in the last month's Report on immunization practice (1 8) reliable?

- ⇒ Compare the number of performed immunizations in the Monthly report (1 8) by every type of vaccination with the Record-book for monthly planning and recording of immunizations (1 4),
- ⇒ Check if the date of actually made immunization has been entered in this Record-Book (1 4)
- ⇒ Check if the sum "Total immunizations made" has been calculated correctly for every type of immunization in the "Immunizations given" section of the Report (1 8, ZVP),
- ⇒ Using these record forms check the total number of contraindications to DPT (1,2,3) in the appropriate section of the ZVP,

⇒ Calculate the amount of vaccine used in doses with respect to the number of immunizations in the monthly report form and compare it with the figure in the “Use of vaccines” section of the Monthly Report (ZVP)

5 Has immunization of children aged 5mo 29d been performed timely?

- ⇒ Compare the number of children subject to DPT-3 according to their age (Children register 1 1) and the number of actually made DPT-3 according to the Record-book for monthly planning and recording of immunizations (1 4),
- ⇒ Assess how objective the reasons behind not made immunizations were (parental refusal, contraindication, moved from the district unexpectedly)

6 Is the data about immunizations made entered into all recording forms in time on the day of immunization? - select randomly a few names of children or adults and compare it (data) using recording forms 112, 063, Record-book for registering immunizations of adults, Record-book for monthly planning and recording of immunizations (1 4),

7 Is DPT-3 coverage of children under 1y accurate taking into account their DoB using Children Register (1 1), Record-book for monthly planning and recording immunizations and forms 063?

8 Are there (at the level of ambulatory of district hospital) monthly analyses of immunization coverage at subordinated FAPs?

- ⇒ For every subordinated FAP - availability of the annual Prospective plan of immunizations (1 3) for children and adults,
- ⇒ Availability of the report on immunization practice (ZVP) from every FAP,
- ⇒ Summary monthly worksheets with cumulative numbers by every type of immunization according to the annual plan with calculation of percentage for each FAP,
- ⇒ Availability of records with names of children who have not completed DPT-3 at 5mo29d at each FAP as well as reasons behind it,
- ⇒ Check if calculation of vaccine needs for every FAP and district is based on the annual plan of immunizations,
- ⇒ Check if vaccines are issued to FAPs and their usage is monitored with the Record-book for vaccine flow (1 6) and ZVP

MEDICAL CONTRAINDICATIONS

9 Is there an explanation why a child has not been immunized, which is stated in the column "Remarks" of the Record-book for monthly planning and recording of immunizations (1 4)?

10 Does the data by name on the number of contraindications in children under 1y correspond to each other in the Record-book for monthly planning and recording of immunizations (1 4), Record-book for long-term and constant contraindications (1 5) and Monthly report on immunization practice (1 8, section "contraindications")?

11 Compare the data on contraindications to DPT-1, DPT-2 and DPT-3 with the previous month's data Is a note "repeated contraindication" made in the Record-book (1.5) in case a child does not get immunized both in the reported and prior to the reported months?

12 Have constant contraindications in children over 1y been prescribed by the Immunologic Commission on a basis of conclusions of relevant specialists?

13 Are contraindications justified and their terms correspond to data in the record-book for contraindications (1 5) and the record-book for monthly planning and recording contraindications (1 4)?

Check by name (see forms 112, 063 and protocols of the central rayon hospital, town children's polyclinic/welfare center for children with long-term contraindications (over 1 month))

One should take into account that the main aim is not to register a contraindication but to detect a period of remission and immunize the child

VACCINE FLOW RECORDING

14 Is reception and usage of vaccines recorded timely?

Check the Record-book for vaccine flow (1 6), how all its columns are filled, whether balance is calculated at the end of a day Don't forget to check whether the flow of vaccines and toxoids is recorded in doses

15 Does the summary data on use of vaccines in the previous month in the Record-book for vaccine flow (1 6) correspond to data in the monthly Report on immunization practice (1 8, column "Vaccine used in doses") for every type of immunization

16 Does the balance of vaccines in the Record-book for vaccine flow (1 6) correspond to the amount of vaccines available in the refrigerator on the day of the check-up? (2-3 vaccines randomly)

17 Are there vaccines with expired date in the refrigerator and why?

- ⇒ How the expired, bad quality or leftover vaccines are destroyed?
- ⇒ Special attention should be paid to the date of manufacturing of polio vaccine (by concrete Lot # , should be used within 6 months after receiving in the oblast SES)

COLD CHAIN

18 Is there a refrigerator at the vaccination point, ambulatory or FAP?

19 Does it work or not? If it does not work - for how long and why? Who has been informed about the fault? Measures taken?

20 Is temperature in the refrigerator recorded twice daily?
Is the temperature taken from the center of the refrigerator?

21 Check the temperature in the refrigerator and compare it with the recorded morning temperature on that day Are the temperatures within the recommended range (+2⁰--8⁰C)?

22 Have vaccines been correctly placed on refrigerator shelves (polio, mumps, measles, rubella vaccines - on the upper shelf, BCG - on the middle shelf, DPT, DT, Td, immune-globulin, bacteriophages, vaccine dilutants - on the lower shelf)

23 Are there ice packs (3-4) for vaccine carriers in the freezer?

24 Are vaccines stored properly during power cut-offs? (there is no need for special storage conditions if power is cut off for less than 8 hours a day)

25 Are vaccines stored properly in case of absence of a refrigerator at the FAP?

EXPLANATION FOR THE CHECKLIST

One should make a clear decision with regard to every question listed whether fulfillment of the point conditions is ensured or not. In case of a positive answer "YES" - no further clarifications are needed. If it becomes clear during the check-up that a point is not fulfilled or is partially fulfilled - one should indicate what exactly is wrong. One should not only state the fact, but also give recommendations that will allow to correct the mistakes in the future. Depending on difficulty of certain points one should make a decision whether advisory assistance of central rayon hospital specialists is needed and when the next check will take place.

Remark All polyclinic/children's welfare center districts should be checked during the year for objective evaluation. In the future the chief of the polyclinic briefed on the checklist will be performing these checks together with an immunologist. Epidemiologist (assistant epidemiologist) will be using the chief of polyclinic's data from the analytical worksheet during repeated checks. He will selectively check reliability of these data in districts with both unsatisfactory and good indicators. One should note that every pediatric or therapeutic district will be assessed against points 1-13. Points 14-25 will be checked in the whole setting.

In order for the checking of work on immunization to be not formal, but to allow objective evaluation of professional level of a worker - priority attention should be given to training of workers of urban and rural districts. Preference should be given to training by areas on the appropriate list of questions and situations with filling in personal control checklists. This will allow to evaluate knowledge and abilities of every worker that performs immunization, detect the most "narrow" places and conduct aim-oriented training.