

# Workbook for Rayon Centers of Public Health on Surveillance and Control of Vaccine Preventable Diseases in Georgia

---

*October 2004*

---

Prepared by:

---

A joint initiative of:

Ministry of Labor, Health and Social  
Affairs of Georgia,  
Department of Public Health,  
Regional Public Health Centers

National Center for Disease Control,  
Center for Medical Statistics and  
Information

*With technical support provided by:*

Partners for Health Reform*plus*  
Curatio International Foundation



Ministry of Labor, Health  
and Social Affairs  
National Center for Disease Control  
and Medical Statistics



Curatio  
International  
Foundation



Partners for Health Reform*plus*



Abt Associates Inc. ■ 4800 Montgomery Lane, Suite 600  
Bethesda, Maryland 20814 ■ Tel: 301/913-0500 ■ Fax: 301/652-3916

*In collaboration with:*

Development Associates, Inc. ■ Emory University Rollins School of Public  
Health ■ Philoxenia International Travel, Inc. ■ Program for Appropriate  
Technology in Health ■ Social Sectors Development Strategies, Inc. ■  
Training Resource Group ■ Tulane University School of Public  
Health and Tropical Medicine ■ University Research Co., LLC.



Funded by:  
U.S. Agency for International Development

*Order No. TK 006RI*





## **Mission**

*Partners for Health Reformplus is USAID's flagship project for health policy and health system strengthening in developing and transitional countries. The five-year project (2000-2005) builds on the predecessor Partnerships for Health Reform Project, continuing PHR's focus on health policy, financing, and organization, with new emphasis on community participation, infectious disease surveillance, and information systems that support the management and delivery of appropriate health services. PHRplus will focus on the following results:*

- ▲ *Implementation of appropriate health system reform.*
- ▲ *Generation of new financing for health care, as well as more effective use of existing funds.*
- ▲ *Design and implementation of health information systems for disease surveillance.*
- ▲ *Delivery of quality services by health workers.*
- ▲ *Availability and appropriate use of health commodities.*

This document was produced by PHRplus with funding from the US Agency for International Development (USAID) under Project No. 936-5974.13, Contract No. HRN-C-00-95-00024 and is in the public domain. The ideas and opinions on this document are the authors and do not necessarily reflect those of USAID or its employees. Interested parties may use the report in part or whole, providing they maintain the integrity of the report and do not misrepresent its findings or present the work as their own. This and other HFS, PHR, and PHRplus documents can be viewed and downloaded on the project website, [www.PHRplus.org](http://www.PHRplus.org).

## **Fourth Edition, October 2004**

### **Recommended Citation**

Ministry of Labor, Health and Social Affairs, Republic of Georgia. Georgia Health Information and Disease Surveillance Reform Program. October 2004. *Guidelines for Surveillance and Control of Vaccine Preventable Diseases in the Republic of Georgia*. Bethesda, MD: The Partners for Health Reformplus Project, Abt Associates Inc.

For additional copies of this report, contact the PHRplus Resource Center at [PHR-InfoCenter@abtassoc.com](mailto:PHR-InfoCenter@abtassoc.com) or visit our website at [www.PHRplus.org](http://www.PHRplus.org).

**Contract/Project No.:** HRN-C-00-00-00019-00

**Submitted to:** USAID/Caucasus

and: Karen Cavanaugh, CTO  
Health Systems Division  
Office of Health, Infectious Disease and Nutrition  
Center for Population, Health and Nutrition  
Bureau for Global Programs, Field Support and Research  
United States Agency for International Development



# Abstract

This workbook, which accompanies *Guidelines for Integrated Surveillance and Control of Vaccine Preventable Diseases in Georgia*, is a four-in-one tool for data collection, analysis, planning of responses, and self-monitoring of performance. It helps rayon-level health workers establish the link between IDS information and response, as well as document their data analysis and utilization for management purposes. Its self-explanatory worksheets and tables assist the health workers to better record, analyze, and utilize infectious disease surveillance (IDS) data. The IDS data are recorded in a standardized format, typically on a quarterly basis. Analysis allows for the identification of IDS performance and operational problems and for formulating specific responses to the problems. A format is also present for documenting the implementation of suggested measures. The current edition of the workbook includes a number of revisions based on the results of Phase I of piloting in Imereti region in 2003; the second phase of the pilot test in Imereti, in 2004, will produce recommendations on how to improve the design and implementation of the tool, and on whether to scale up the intervention to other regions in Georgia.

---



# Table of Contents

Acronyms .....	ix
Contributors .....	xi
Acknowledgments .....	xiii
Introduction .....	1
Worksheets and Tables .....	3





# Acronyms

<b>AFP</b>	Acute Flaccid Paralysis
<b>CIF</b>	Curatio International Foundation
<b>CNS</b>	Central Nervous System
<b>CPH</b>	Center of Public Health
<b>CRS</b>	Congenital Rubella Syndrome
<b>DPT</b>	Diphtheria, Pertussis and Tetanus Vaccine
<b>DT</b>	Diphtheria and Tetanus Toxoid Combination
<b>NID</b>	National Immunization Day
<b>MoLHSA</b>	Ministry of Labor, Health and Social Affairs
<b>NCDC</b>	National Center for Disease Control
<b>OPV</b>	Oral Poliomyelitis Vaccine
<b>PAU</b>	Polyclinic Ambulatory Unit
<b>PCR</b>	Polymerase Chain Reaction
<b>PHRplus</b>	Partnerships for Health Reform <i>plus</i> Project
<b>SARS</b>	Severe Acute Respiratory Syndrome
<b>STD</b>	Sexually Transmitted Disease
<b>Td</b>	Diphtheria and Tetanus Toxoid
<b>TT</b>	Tetanus Toxoid
<b>VPD</b>	Vaccine Preventable Disease
<b>USAID</b>	United States Agency for International Development



# Contributors

This *Workbook for Rayon Centers of Public Health on Integrated Surveillance and Control of Vaccine Preventable Diseases in Georgia* has been prepared by the Ministry of Labor, Health Social Affairs (MoLHSA) expanded Working Group headed by P. Imnadze, Director of the National Center for Disease Control, with technical assistance received from the United States Agency for International Development (USAID)/Partners for Health Reform *plus* project and Curatio International Foundation.

The working group also included the following:

<i>Levan Baramidze</i>	Head of the Public Health Department, MoLHSA
<i>Ramaz Urushadze</i>	Head of the Public Health Department, MoLHSA
<i>Paata Imnadze</i>	National Center for Disease Control and Medical Statistics (NCDC), Director
<i>Shota Tsanava</i>	NCDC, Deputy Director
<i>Khatuna Zakhshvili</i>	NCDC, Chief of the Surveillance Unit
<i>Otar Pirtskhalaishvili</i>	NCDC, Chief of the Informational Resources and Continuous Medical Education Unit
<i>Manana Tsintsadze</i>	NCDC, Deputy Director
<i>Marina Shakh-Nazarova</i>	NCDC, Chief of the Data Analysis & Presentation Unit
<i>Robizon Tsiklauri</i>	Chief Specialist of the Epidemiological Control Division, Public Health Department, MoLHSA
<i>Kote Gvetadze</i>	Kutaisi Regional Public Health Center, Director
<i>Lia Shekiladze</i>	Kutaisi Regional Public Health Center, Head of the Epidemiology Department
<i>Dali Kobuladze</i>	Kutaisi Regional Public Health Center, Deputy Director in Epidemiology
<i>Tsitso Dilebashvili</i>	Tbilisi City Health and Social Service, Public Health Unit, Head of Immunization Group
<i>Roza Kipiani</i>	Tbilisi City Health and Social Service, Public Health Unit, Vake-Saburtalo regional subunit, chief specialist
<i>Marina Enukidze</i>	Sachkhere Rayon CPH, Deputy Director for Surveillance
<i>Madona Kasradze</i>	Tkibuli Rayon COH, Deputy Director for Surveillance
<i>Levan Paikridze</i>	Zetaphoni Rayon CPH, Deputy Director for Surveillance
<i>Tamar Maskharashvili</i>	Zetaphoni Children's Polyclinics, Director
<i>Eteri Gubeladze</i>	Kutaisi Childrens #2 Polyclinics, Deputy Director
<i>Izolda Odikadze</i>	Zestaphoni Rayon, Kvaliti Ambulatory, Director



# Acknowledgments

The Ministry of Labor, Health and Social Affairs of Georgia and the working group are grateful to the *United States Agency for International Development (USAID/Caucasus)* for the opportunity to realize plans on elaboration and introduction of the new information system as well as to *Partners for Health Reformplus* and *Curatio International Foundation (CIF)* for their support and technical assistance in this process.

The production of this manual was funded by USAID under the prime contract No. HRN-C-00-00-00019-00 and subcontract No. 02-011-HPSS-7544.



# Introduction

This workbook is a job aide accompanying the second edition of the *Guidelines for Integrated Surveillance and Control of Vaccine Preventable Diseases in Georgia*.<sup>1</sup> It consists of self-explanatory worksheets and tables to assist rayon-level health workers at centers of public health (CPHs) to better record, analyze, and utilize IDS data. It provides a detailed template in which critical infectious disease surveillance (IDS) data are recorded in a standardized format, typically on a quarterly basis. It is recommended that the worksheets and tables within the job aide be completed for all critical epidemiological data on vaccine preventable diseases submitted to rayons. Additionally, the job aide embeds the basic analysis that allows for the identification of IDS performance and operational problems, such as flagging under-performing facilities, determining causes of low coverage, and specifying major reasons why cases occurred. Furthermore, the job aide provides a standardized format for formulating specific response to identified problems, such as measures to correct coverage, to improve accuracy and timeliness of reporting, or to improve surveillance. A format is also present for documenting the implementation of suggested measures. Thus the job aide is a four-in-one tool (data collection, analysis, planning of responses, and self-monitoring of performance) that helps health workers establish the link between IDS information and response, as well as document their data analysis and utilization for management purposes.

Following the second phase of piloting of the job aide within all 12 rayons of the Imereti region in 2004, recommendations will be provided on how to improve the design and implementation of the tool, and on whether to scale up the intervention to other regions in Georgia

---

<sup>1</sup> Ministry of Labor, Health and Social Affairs, and National Centers for Disease Control. July 2003. *Guidelines for Integrated Surveillance and Control of Vaccine Preventable Diseases in Georgia*. Bethesda, MD: Partners for Health Reformplus.





# Worksheets and Tables



**POPULATION DEMOGRAPHIC DATA (to be filled out annually)**

in \_\_\_\_\_ rayon/town \_\_\_\_\_ year

Age groups	Year of birth	Subordinated facilities in the service area															TOTAL
under 1																	
1-4																	
5-14																	
15-19																	
20-29																	
30-59																	
60 and older																	
<b>TOTAL in the rayon/town</b>																	
<b>Data source (s)</b>																	
<b>If concerned about data reliability, provide details here</b>																	
<b>Specify what needs to be done to improve the accuracy of the above information</b>		1															
		2															
		3															



**Quarterly assessment of TIMELINESS of urgent case notifications in \_\_\_\_\_ rayon /town \_\_\_\_\_ year**

Facility	I quarter									II quarter										
	Total cases requiring notification (based on 60a & 60b)				Notified CPH within 24hrs				%	Total cases requiring notification (based on 60a & 60b)				Notified CPH within 24hrs				%		
	Jan	Feb	Mar	Total	Jan	Feb	Mar	Total		Apr	May	Jun	Total	Apr	May	Jun	Total			
<b>Total</b>																				
Specify what needs to be done to improve timeliness of urgent case notifications	1										1									
	2										2									
	3										3									
Did above measures work? If not - specify additional measures.	YES NO Why not _____																			
	1										1									
	2										2									

**Quarterly assessment of TIMELINESS of urgent case notifications in  
in \_\_\_\_\_ rayon /town \_\_\_\_\_ year**

Facility	III quarter									IV quarter										
	Total cases requiring notification (based on 60a & 60b)				Notified CPH within 24hrs				%	Total cases requiring notification (based on 60a & 60b)				Notified CPH within 24hrs				%		
	Jul	Aug	Sep	Total	Jul	Aug	Sep	Total		Oct	Nov	Dec	Total	Oct	Nov	Dec	Total			
<b>Total</b>																				
Specify what needs to be done to improve timeliness of urgent case notifications	1										1									
	2										2									
	3										3									
Did above measures work? If not - specify additional measures.	YES NO Why not _____																			
	1										1									
	2										2									

## Quarterly self-assessment of VPD case/outbreak investigation rates

in \_\_\_\_\_ rayon/town \_\_\_\_\_ year

Disease	Investigation threshold (clinical cases)	Investigation is timely if initiated within	I quarter										II quarter														
			No. of times threshold reached				No. of timely investigations				%	No. of times threshold reached				No. of timely investigations				%							
			Jan	Feb	Mar	Total	Jan	Feb	Mar	Total		Apr	May	Jun	Total	Apr	May	Jun	Total								
Diphtheria	1 case	1 business day																									
AFP	1 case	1 business day																									
Measles	1 case	1 business day																									
Mumps	1 case	1 business day																									
Rubella	1 case	1 business day																									
CRS	1 case	1 business day																									
Tetanus	1 case	3 business days																									
Pertussis	1 case	1 business day																									
Hepatitis B	1 case	3 business days																									
<b>TOTAL</b>																											
Specify what you can do to improve situation			1																				Did it work? YES-NO				
			2																				Did it work? YES-NO				
			3																				Did it work? YES-NO				

Disease	Investigation threshold (clinical cases)	Investigation is timely if initiated within	III quarter										IV quarter								2004														
			No. of times threshold reached				No. of timely investigations				%	No. of times threshold reached				No. of timely investigations				%	No. of times threshold reached	No. of timely investigations	%												
			Jul	Aug	Sep	Total	Jul	Aug	Sep	Total		Oct	Nov	Dec	Total	Oct	Nov	Dec	Total																
Diphtheria	1 case	1 business day																																	
AFP	1 case	1 business day																																	
Measles	1 case	1 business day																																	
Mumps	1 case	1 business day																																	
Rubella	1 case	1 business day																																	
CRS	1 case	1 business day																																	
Tetanus	1 case	3 business days																																	
Pertussis	1 case	1 business day																																	
Hepatitis B	1 case	3 business days																																	
<b>TOTAL</b>																																			
Specify what you can do to improve situation			1																				Did it work? YES-NO												
			2																				Did it work? YES-NO												
			3																				Did it work? YES-NO												

# Annual assessment of VPD and other priority infectious diseases morbidity and mortality trends

in \_\_\_\_\_ rayon/town \_\_\_\_\_ year

Disease	No. of cases and incidence per 100,000 population (for selected diseases) by year													No. of deaths by year															
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004																		
Population																													
Diphtheria																													
AFP																													
Tetanus																													
Congenital Rubella																													
Measles	Cases																												
	Incidence																												
Mumps	Cases																												
	Incidence																												
Rubella	Cases																												
	Incidence																												
Pertussis	Cases																												
	Incidence																												
Hepatitis B	Cases																												
	Incidence																												

<b>Infectious diseases causing the biggest concern in the rayon and the basis for the concern</b> (e.g., sharp increase of cases, persistently high morbidity despite measures taken, etc.)	<i>Provide details</i> ( e.g. age, major contributing factors):
1	
2	
3	



## Infectious diseases morbidity this year (subject to monthly reporting to Regional CPH)

in \_\_\_\_\_ rayon/town \_\_\_\_\_ year

Disease	January										February										March													
	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	
Diphtheria																																		
Pertussis																																		
Measles																																		
Rubella																																		
Mumps																																		
Acute Viral Hepatitis A																																		
Acute Viral Hepatitis B																																		
Acute Viral Hepatitis C																																		
Acute Viral Hepatitis E																																		
Typhoid fever																																		
Paratyphoid A, B, C fever																																		
Other salmonellosis																																		
Shigellosis																																		
Other intestinal bact. infections																																		
of them Esherichiosis																																		
Yersiniosis																																		
Foodborne Bacterial Intoxications																																		
Botulism																																		
Amebiasis																																		
Unspecified inf diarrheal diseases																																		
Brucellosis																																		
Meningococcal Infection																																		
Malaria																																		
Leishmaniasis																																		
Acute Resp. Infections																																		
Influenza																																		
Hospitalized cases of influenza-like illness																																		
Fatal cases of acute infectious diseases																																		

**Infectious diseases causing the biggest concern in the rayon and possible reasons**

- 1
- 2
- 3

Disease	April										May										June												
	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED
Diphtheria																																	
Pertussis																																	
Measles																																	
Rubella																																	
Mumps																																	
Acute Viral Hepatitis A																																	
Acute Viral Hepatitis B																																	
Acute Viral Hepatitis C																																	
Acute Viral Hepatitis E																																	
Typhoid fever																																	
Paratyphoid A, B, C fever																																	
Other salmonellosis																																	
Shigellosis																																	
Other intestinal bact. infections																																	
of them Esherichiosis																																	
Yersiniosis																																	
Foodborne Bacterial Intoxications																																	
Botulism																																	
Amebiasis																																	
Unspecified inf diarrheal diseases																																	
Brucellosis																																	
Meningococcal Infection																																	
Malaria																																	
Leishmaniasis																																	
Acute Resp. Infections																																	
Influenza																																	
Hospitalized cases of influenza-like illness																																	
Fatal cases of acute infectious diseases																																	
<b>Infectious diseases causing the biggest concern in the rayon and possible reasons</b>																																	
1																																	
2																																	
3																																	



Disease	October										November										December													
	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	<1	1-4	5-14	15-19	20-29	30-59	60+	TOTAL	LAB TESTED	LAB CONFIRMED	TOTAL CONFIRMED	
Diphtheria																																		
Pertussis																																		
Measles																																		
Rubella																																		
Mumps																																		
Acute Viral Hepatitis A																																		
Acute Viral Hepatitis B																																		
Acute Viral Hepatitis C																																		
Acute Viral Hepatitis E																																		
Typhoid fever																																		
Paratyphoid A, B, C fever																																		
Other salmonellosis																																		
Shigellosis																																		
Other intestinal bact. infections																																		
of them Esherichiosis																																		
Yersiniosis																																		
Foodborne Bacterial Intoxications																																		
Botulism																																		
Amebiasis																																		
Unspecified inf diarrheal diseases																																		
Brucellosis																																		
Meningococcal Infection																																		
Malaria																																		
Leishmaniasis																																		
Acute Resp. Infections																																		
Influenza																																		
Hospitalized cases of influenza-like illness																																		
Fatal cases of acute infectious diseases																																		

**Infectious diseases causing the biggest concern in the rayon and possible reasons**

1

2

3









































# MEASLES prevention and control worksheet

in \_\_\_\_\_ rayon/town \_\_\_\_\_ year

Subordinated Facilities	MMR-1 coverage at 24mo				MMR-2 coverage at 5y11mo29d				MEASLES CASES												
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	TOTAL
<b>TOTAL</b>																					

If coverage is low, specify main reasons:	If the number of cases this year > 10, analyze them by age and imm. status
<input type="checkbox"/> Vaccine stockouts <input type="checkbox"/> Many contraindications <input type="checkbox"/> PAU worked poorly	<input type="checkbox"/> Many refusals Other: _____
<b>Specify, what needs to be done to improve coverage:</b>	<b>Major reasons why cases occurred</b>
1	<b>... and possible actions</b>
2	<input type="checkbox"/> Low routine coverage
3	<input type="checkbox"/> Failed to immunize contacts promptly
4	<input type="checkbox"/> Immunizations did not protect
5	<input type="checkbox"/> Migrated from other area
<b>Here are example of actions you can take:</b>	<b>Specify what YOU will do about this:</b>
Identify reasons for low coverage	1 <input type="checkbox"/> Done
Give instructions/feedback to pediatricians or facility heads	2 <input type="checkbox"/> Done
Inform rayon administration	3 <input type="checkbox"/> Done
Timely re-order vaccine to prevent stockouts	
Use mobile brigades to immunize children in remore areas	
Use specialist brigades to review justification of contraindications	
Disseminate leaflets about importance and safety of immunization	









## POLIO prevention and control worksheet

in \_\_\_\_\_ rayon/town \_\_\_\_\_ year

Subordinated Facilities	Polio-3 coverage at 12mo				Polio-4 coverage at 24mo				Polio-5 coverage at 5y				If coverage is low, specify main reasons:								
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	<input type="checkbox"/> Vaccine stockouts			<input type="checkbox"/> Many refusals					
															<input type="checkbox"/> Many contraindications			Other:			
															<input type="checkbox"/> PAU worked poorly						
														Specify, what needs to be done to improve coverage:							
														1							
														2							
														3							
														4							
														5							
														AFP SURVEILLANCE							
														Population under 15y in the rayon:							
														No of AFP cases detected		2001	2002	2003	2004		
														Notes:							
														TOTAL							

## CONGENITAL RUBELLA prevention and control worksheet

in \_\_\_\_\_ rayon/town \_\_\_\_\_ year

Implemented CRS surveillance measures (mark respective quarter)	Q1	Q2	Q3	Q4	Total number of clinical CRS cases this year
Follow up with all women infected with rubella during pregnancy					Notes:
Alert and retrain all rayon pediatricians, obstetricians, otolaryngologists, cardiologists, ophthalmologists					
Provide the above specialists with respective guidelines and forms					
Review hospital records for CRS-compatible defects					
Other measures (specify):					
Estimated proportion of pediatricians in your rayon that screen infants for CRS at DPT visits (target > 80%)					

