



**World Health
Organization**

REGIONAL OFFICE FOR **Europe**

**Technical Consultation with Countries on
the Proposed Framework for Verifying
Measles and Rubella Elimination in
the WHO European Region**

2-3 December 2010
Copenhagen, Denmark

Abstract

In 2002, the WHO Regional Office for Europe developed and implemented a strategic plan targeting the elimination of measles, rubella and the prevention of congenital rubella syndrome infection in the WHO European Region by the year 2010.

The WHO Regional Offices for the Americas (AMRO), Eastern Mediterranean (EMRO) and Western Pacific (WPRO) also have measles elimination goals, and all have established or are establishing processes and criteria for verification of measles elimination, including establishment of regional and national verification committees.

In January 2010, an expert consultation on the proposed framework on regional verification of measles and rubella elimination was convened in Copenhagen by the WHO European Regional Office. The purpose of the consultation was to review the process to document progress towards measles and rubella elimination review a proposed framework for the verification process.

In follow up to the expert consultation, a technical consultation with countries of the WHO European Region was convened in December 2010. The objectives of the technical consultation were to critically review the proposed framework for the verification process in the WHO European Region and provide guidance and practical recommendations on the basic principles and components of the verification process, the structure and function of the regional and national verification commissions, and the operationalization of the verification process. It is proposed that national commissions for the verification of measles and rubella elimination (MRNVCs) be established starting in 2012.

Countries and partners welcomed the proposed framework, which was considered comprehensive, clear and user-friendly. Country commitment to the measles and rubella elimination goal remains solid throughout the Region.

Keywords

MEASLES VACCINE
RUBELLA VACCINE
IMMUNIZATION PROGRAMS
RUBELLA - prevention and control
MEASLES - prevention and control
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Abbreviations

CDC	[United States] Centers for Disease Control and Prevention
CRS	Congenital Rubella Syndrome
cMYP	Comprehensive Multi-year Plan
ECDC	European Centre for Disease Control and Prevention
EIW	European Immunization Week
EMRO	[WHO] Eastern Mediterranean Regional Office
ETAGE	European Technical Advisory Group of Experts on Immunization
EU	European Union
EUR	[WHO] European Region
Europe	[WHO] European Regional Office
GAVI	Global Alliance for Vaccines and Immunization
HIV/AIDS	human immunodeficiency virus/acquired immunodeficiency syndrome
JRF	[WHO/UNICEF] Joint Reporting Form
MCV	Measles- containing vaccine
MRRVC	Regional Commission for the Verification of Measles and Rubella Elimination
MRNVC	National Commission for the Verification of Measles and Rubella Elimination
NITAG	National Immunization Technical Advisory Group
PAHO	Pan American Health Office [WHO Regional Office for the Americas]
PIRI	Periodic intensification of routine immunization
RCV	Rubella-containing vaccine
SAGE	[WHO] Strategic Advisory Group of Experts on Immunization
SIA	Supplementary Immunization Activity
TORs	Terms of Reference
UNICEF	United Nations Children's Fund
VPD	Vaccine-preventable disease
WER	Weekly Epidemiological Record
WHO	World Health Organization
WPRO	[WHO] Western Pacific Regional Office

Executive Summary

The WHO Regional Office for Europe developed and implemented a strategic plan for measles, rubella, and the prevention of congenital rubella infection in the WHO European Region in 2002. This plan targeted the elimination of measles and rubella, and the prevention of congenital rubella infection by the year 2010. Interruption of indigenous measles transmission has already been achieved in some Member States through routine immunization programmes, which maintain high measles-vaccine coverage ($\geq 95\%$) using a two-dose schedule.

The WHO Regional Offices for the Americas (AMRO), Eastern Mediterranean (EMRO) and Western Pacific (WPRO) also have measles elimination goals, and all have established, or are establishing, processes and criteria for verification of measles elimination, including establishment of regional and national verification committees. However, the processes and criteria, while very similar, are not identical.

Establishing an agreed upon external and objective process and criteria for verification of measles elimination will provide official recognition of countries that have eliminated measles, and for those that have not, clear standards and resources that will help policy-makers and programme managers to do what is needed to eliminate measles and submit evidence demonstrating elimination.

In order to begin to document progress towards measles and rubella elimination in the WHO European Region, the Regional Office developed a proposed framework for the verification process. The purpose of the framework is to describe the steps that will be taken to document and verify that elimination of measles and rubella has been achieved in the WHO European Region.

In January 2010, the Regional Office convened an expert consultation on the proposed framework. This was followed by the present technical consultation with countries of the WHO European Region convened in December 2010. It is proposed to begin establishing national commissions for the verification of measles and rubella elimination (MRNVCs) from 2012

The objectives of the technical consultation were to:

- Critically review the proposed framework for the verification process in the WHO European Region and provide guidance and practical recommendations on:
 - the basic principles and components of the verification process,
 - the structure and function of the Regional and National Verification Commissions, and
 - the operationalization of the verification process.
 - Review the current status of measles and rubella elimination in selected countries in the WHO European Region.
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- Present self-assessment tools for monitoring national progress towards measles and rubella elimination developed by WHO European Regional Office and the European Centre for Disease Prevention and Control (ECDC).

Countries and partners welcomed the proposed framework, which was considered clear and user-friendly. Country commitment to the measles and rubella elimination goal remains solid throughout the Region.

Introduction

In 2010, at the 60th session of the WHO Regional Committee for Europe, the current status of measles and rubella elimination in European Region was reviewed in depth, and the elimination goal was modified to 2015¹. An exercise was also been conducted to cost the elimination goal in the European Region. All countries have now endorsed the revised regional elimination goal for 2015.

Progress towards measles and rubella elimination in the Region was summarized by the WHO Regional Office for Europe. Pockets of low vaccination coverage continue to exist, complicating the achievement of measles and rubella elimination. The WHO European Region differs from other WHO regions in that while most eastern countries have conducted catch-up supplementary immunization activities (SIAs) typically targeting persons up to 49 years of age, few have implemented follow-up SIAs (targeting children aged <5 years). This is due to the fact that the European Region's strategy focuses on ensuring high levels of population immunity delivered through routine immunization service delivery. Furthermore, SIAs in the WHO European Region have not always been conducted nationwide, but were often selective and phased. Both Ukraine and Georgia have conducted incomplete SIAs, therefore additional or alternative immunization strategies will have to be employed to close the existing immunity gaps.

Case-based surveillance for measles is well established in the Region, but rubella surveillance requires further strengthening. The timeliness of surveillance data reporting from countries to the WHO European Regional Office is weak and requires strengthening. A substantial number of countries report only laboratory-confirmed measles cases and not discarded cases. Measles virus genotyping isolates demonstrates that 56% of all measles outbreaks are related to strains circulating in the Region, whereas a smaller proportion are related to viruses imported from other regions. Age-specific analysis of measles cases shows that the majority of cases occur in older (aged >9 years) and in unvaccinated individuals.

Public acceptance of immunization in certain communities in some Member States, particularly in western Europe, is weak primarily due to inadequate perceptions of risk and benefit of vaccination, anti-vaccine advocacy, and philosophical and religious refusal. There are also specific groups that are not able to access services, including many Roma communities in many countries. In certain countries, health system reforms have resulted in a reduction of resources available for outreach activities, which constitute one of the successful ways children in Roma communities were reached. Greater emphasis is needed urgently to raise routine measles and rubella vaccination coverage rates to very high levels. There are also opportunities to target specific groups such as the Roma in the course of SIAs or the annual European Vaccination Week activities.

Status of measles and rubella elimination in selected countries

¹ Resolution: renewed commitment to elimination of measles and rubella and prevention of congenital rubella syndrome by 2015 and Sustained support for polio-free status in the WHO European Region. Regional Committee for Europe, 60th session, Moscow, 13-16 September 2010. Document EUR/RC60/R12. (<http://www.euro.who.int/en/who-we-are/governance/regional-committee-for-europe/resolutions/sixtieth-session/eurrc60r12>.)

Finland

An overview of measles and rubella prevention and control efforts in Finland over the past 35 years was presented. Monovalent vaccines were introduced in 1975, but MMR has been the recommended vaccine since 1982. Initially, there was some resistance to administering three live virus vaccines simultaneously, but this was quickly overcome. Measles and rubella have been notifiable diseases in Finland for decades, but since 1987 only laboratory-confirmed cases are notifiable. The last measles and rubella outbreaks occurred in the mid-1990s; since then, all cases have been imported with the virus characterized and its source identified. Contact tracing is conducted but epidemiologically-linked cases are not reported. Unvaccinated contacts are not vaccinated until laboratory results from the suspected case are received.

Finland conducts representative seroprevalence studies to establish measles and rubella population immunity profiles that demonstrate that >95% of all age cohorts ≥ 1 year of age are immune to measles and rubella. Cohorts followed for >25 years show sustained high levels of immunity to measles, mumps and rubella. Further neutralization testing of IgM-negatives showed that most of them were in fact positive. In view of all of the evidence available, the Government of Finland believes that measles and rubella have been eliminated.

Russian Federation

In the Russian Federation, there are three stages of measles elimination activity in the country : 1) to reduce measles incidence to very low levels; 2) to eliminate measles transmission; and 3) to verify elimination by 2010. In 2004-06, >5 million persons aged <35 years with no history of measles vaccination were vaccinated through a phased catch-up SIAs strategy. Additional steps have been established to vaccinate routinely Roma communities and migrants using a mobile outreach team strategy. Since 2007, the majority of reported measles cases in the Russian Federation were imported, with limited spread beyond a single generation. As of 2010, the overall incidence of measles was <1 case per million population. A national measles verification commission has been established with expert membership including epidemiologists and virologists.

In 2006-07, more than 11 million females aged <25 years were vaccinated against rubella through a catch-up SIAs strategy in Russian Federation. As of 2010, the overall incidence of rubella was <1 case per million population.

Netherlands

In the Netherlands, both rubella and measles vaccines were introduced in 1974, and two doses of MMR in 1987. In 2009, national vaccination coverage among children aged 10 years was roughly 97% for measles and 93% for rubella. However, 16% of municipalities have measles coverage <90%, which represents the "Bible belt" in central Holland: where vaccine refusers are concentrated. Cases of measles and rubella continue to occur following importations, often in unvaccinated children of vaccine refusers. Seroprevalence studies show susceptibility among health workers, travelers, and vaccine refusers.

Vaccine refusers may be divided into three groups: (a) Orthodox Reformed Christians (many sub-groups) – roughly 115,000 (0.7% of total population), (b) Anthroposophics (followers of Rudolph Steiner) – exact numbers unknown, and (c) general refusers (parents who fear adverse

events.). A number of these vaccine refuser groups have significant influence is specific schools, newspapers and at least one political party. Polio, measles and rubella outbreaks have occurred among vaccine refuser communities, with spread to Ontario, Canada, where part of the Orthodox Reformed Christian group emigrated. Based on epidemiologic evidence, a measles epidemic among members of vaccine refuser communities in the Netherlands is predicted in 2011. At the present time, the government does not believe attempts to use legal means (e.g., from the perspective of the rights of the child) to force parents to vaccinate their children would be successful. However, a more scientific approach to working with anthroposophists and convincing them to accept vaccination is considered feasible.

The Netherlands is considering revising the current two-dose MMR schedule, where the second dose is currently given at 9 years of age. Studies are in progress to improve the use of sero-epidemiologic data and fine-tune the correlates of immunity.

Poland

Measles and rubella incidence has declined in Poland in recent years. It is probable that measles cases are mostly imported or import-related, but rubella transmission remains endemic. MMR vaccine was introduced relatively recently and its full impact, specifically on rubella and congenital rubella syndrome (CRS) incidence, has not yet been felt. The low RCV coverage among teenage and young adult men facilitates rubella exposure among unvaccinated teenage and young adult women, resulting in rubella in child-bearing years and consequent CRS cases. Currently, the incidence of reported rubella cases is the highest in the Region. Furthermore, the capacity to diagnose CRS cases among gynecologists, ophthalmologists and otolaryngologists is limited.

Germany

A summary of challenges faced by Germany (and, in general, among German-speaking populations in Austria, and Switzerland.) was presented. Germany does not have a school vaccination requirement, and recommended vaccines are free-of-charge but voluntary and mostly given in the private sector. Measles is a notifiable disease and CRS is subject to obligatory notification, but not rubella. Since 1991, two doses of MMR vaccine have been recommended. Recently, it was recommended that all persons up to 60 years should be vaccinated. MCV1 coverage is roughly 95% nationally, and MCV2 coverage is roughly 90%, although late receipt of vaccine is common. In 2009, measles incidence was 0.7 reported cases per million cases, with a marked difference between old federal states (former West Germany) and new federal states (former East Germany). A large measles outbreak in 2006 resulted in two deaths. An increasing trend in the average age of measles cases has been observed, and since the mid-2000s more than half of all cases occur in persons aged >15 years. The proportion of cases among infants age <1 year also appears to be rising.

The potential for outbreaks among susceptible individuals remains high among adolescents, Roma communities, asylum seekers, and anthroposophists. Fear of adverse events is relatively widespread through society and anti-vaccine skeptics are numerous especially among more educated parents. In response to these difficulties, the government now recommends that both MCV1 and MCV2 should be administered to infants before their second birthday, all persons born since 1970 with no history of vaccination or evidence of receiving MCV1 only should receive one dose of MCV, and in schools where measles cases occur all unvaccinated children whose parents refuse to have them vaccinated are excluded for 14 days.

ECDC measles and rubella elimination advocacy tool

The self-evaluation tool designed by ECDC is a web-based tool to help national public health experts to measure progress towards measles and rubella elimination and to support WHO Europe on the regional verification process. While, the tool is applicable to both measles and rubella, the specific process and indicators that will be monitored for each are distinct. While it is not intended as a data collection tool, and the information remains confidential, countries can share the results with WHO Europe and ECDC to provide evidence of progress towards elimination. The tool consists of ten primary questions, each generating an array of secondary questions which require yes or no responses. These ten questions may be weighted differently in accordance with their relative importance in the verification process. The completed questionnaire is discarded when the website is closed. It is hoped that the tool will help countries to identify national data gaps and can be used to support national advocacy initiatives.

Proposed components of the framework for verifying measles elimination in the WHO European Region

The purpose of the verification process is to document that the elimination of measles and rubella has been achieved in the European Region. This process will be on-going and evidence-based, and based on the evaluation of measurable indicators verified by an independent, external panel of experts. The ultimate goal is to demonstrate the complete absence of endemic (non-imported) cases. Measles and rubella elimination in the WHO European Region will be considered to have been achieved after verification of interruption of indigenous virus for 36 months. It is likely that the elimination of measles and rubella will not occur simultaneously in individual countries. These two events may be verified separately and with different time-frames.

The documentation and verification process requires the following evidence to support the completion of the essential elimination criteria:

- 1. Analysis of measles and rubella vaccinated population cohorts.** The objective is to prove that all population cohorts aged <40 years are fully protected against measles. Countries report annual MCV1/RCV1, MCV2/RCV2 and SIA coverage data to the Regional Office, and report national and sub-national MCV1/RCV1 and MCV2/RCV2 coverage data among infants and children aged <24 months. These data will in certain countries need to be supplemented by serosurveys, coverage surveys, analyses of age and vaccination status of confirmed and discarded measles and rubella cases, and other sources, as available. Coverage data should also be correlated with disease incidence to ensure internal consistency. Some industrialized countries do not generate routine vaccination coverage data, but may, for example, provide data on the number of doses administered during SIAs.
- 2. Epidemiological analysis of measles and rubella incidence during the previous 36 months.** The objective is to demonstrate the sustained disappearance of endemic (non-imported) cases, that is, to demonstrate zero incidence through the analysis of case-based surveillance data (see Table). The Regional Office published the new measles and rubella surveillance guidelines in 2010 (REFERENCE). The timeliness and completeness of reporting from some Member States is inadequate, complicating data analysis and understanding of outbreak investigations. The WHO International Health Regulations (IHR) specifies that outbreaks of public health importance be reported; some Member States are including measles outbreaks. National measles surveillance reporting formats for transmission to WHO Europe and ECDC are consistent.

The Regional Office conducts ongoing analysis and dissemination of measles and rubella epidemiology in accordance with the standardized indicators recommended by WHO, in addition to detailed analysis of outbreak investigation data. These analyses have been organized into measles and rubella country profiles, and meeting participants were invited to comment on the content and presentation of the profiles.

Table : Classification of measles cases, by method of case confirmation and source of infection.

Source of infection	Method of Case Confirmation		
	Laboratory confirmed	Confirmed by Epidemiologic linkage	Clinically compatible
Endemic	A	B	C
Imported	D	E	F
Import-related	G	H	I
Unknown	J	K	L

[Source: WHO. Weekly Epidemiological Record 49(85):490-495; 2010]

3. Analysis of the molecular epidemiology of measles and rubella viruses. WHO Europe has established an integrated laboratory network of 71 laboratories whose primary objectives are to provide laboratory confirmation of all clinical measles and rubella cases, and to genotype virus strains circulating. Serum specimens are the most frequently submitted, but a growing number of specimens are oral fluid. A number of performance indicators have been established to monitor laboratory performance, including timeliness of specimen collection, testing and reporting. Laboratory performance achieved its performance targets for in 2008 and has maintained those levels since then.

The Measles Nucleotide Surveillance (MeaNS) database has been established for storing measles genotypic sequences and allows quick comparison between countries. Genotypic analysis permits the Region to track the spread of strains from country to country, and permits individual countries to demonstrate when endemic strains have been eliminated, for example, in the Russian Federation. The collection of genotypic data remains incomplete in the European Region.

A growing concern in the Region relates to the quality and completeness of data generated by private laboratories in countries with national insurance schemes, for example, in France, which will require closer collaboration and communication going forward. Overall, there is a clear need for greater linkage of epidemiologic and virologic data and greater integration for improved analysis and outbreak response measures.

4. Overall quality of measles and rubella surveillance. As of October 2010, the completeness of measles and rubella data reporting to national ministries and to WHO Europe is relatively high, but timeliness is poor. The proportion of cases with laboratory investigation is high in those countries conducting case-based surveillance, but low in countries reporting aggregate data. Many countries only report laboratory-confirmed cases, and in some cases that number is zero, which makes it impossible to assess the sensitivity of surveillance. To date, the sensitivity indicator of ≥ 2 suspected cases per 100,000 total population has been achieved by very few Member States. It was recommended that surveillance performance indicators should be monitored at regional, national and sub-nationals levels.

The definition of a measles or rubella outbreak varies substantially between countries, and reporting of the recommended indicators for outbreaks with virus genotype information is still limited in the Region. The timeliness of initiating outbreak investigations is generally poorly reported. A limited proportion of reported outbreaks include data on source of infection.

5.Sustainability of national immunization programmes. Measles and rubella vaccines are components of national immunization programmes, which in itself is a component of a health care delivery system. In order to demonstrate programme sustainability, it is proposed to monitor the following 4 integrated components: (a) adequate planning, (b) adequate technical preparation, (c) adequate funding and demand forecasting for vaccine supply, and (d) secure funding for vaccine supply. These qualitative indicators should be monitored from the perspective of demonstrating the maturity of the national immunization programme, and should permit triangulation with and confirmation of the quantitative indicators.

6.Public acceptance of the measles/rubella elimination goal. Effective advocacy and information, education and communication (IEC) strategies should be implemented targeting all communities nationwide, not only “hard-to-reach” and “hard-to-convince” groups, to ensure that all strata of society comprehend clearly the compelling evidence for health protection through vaccination.

Panel discussion on proposed framework components

The specific criteria described in Chapter 4 of the draft framework were discussed in depth. To initiate the discussion, Turkey made a presentation on its national immunization programme. Turkey has 11 antigens in the national schedule. Measles vaccine was introduced in 1970, a second dose was introduced in 1998, and MMR was introduced in 2006. Measles catch-up SIAs were conducted in 2003-05, and case-based surveillance was established in 2005. Results of a lot quality assurance survey in 2005 revealed measles vaccination coverage >95%. Rubella catch-up SIAs were conducted in 2006-08 in schools and nationwide in 2009. A periodic intensification of routine immunization (PIRI) strategy was implemented in 2010.

Israel described efforts to raise routine vaccination coverage. Vaccination is free in Israel, but a financial incentive was introduced which involves withholding part of the child benefit from parents of a child whose vaccination schedule is not complete.

In a number of countries, MCV2 is administered at 6 years of age or later. It was proposed that WHO Europe recommend reducing the age of administration of MCV2 to a younger age, for example, <5 years of age.

The table of the five essential elimination criteria presented on page 14 of the draft framework was discussed with a view to seeking consensus on content. It was proposed that a sixth criterion related to *public acceptance and effective communication* be added. Participants noted that some countries cannot currently, and will not in the future, be able to comply with all criteria, for example, Germany will not introduce case-based measles and rubella surveillance. However, CRS is a notifiable condition and therefore subject to more complete efforts for detection, investigation and reporting. The Chair noted that Member States have made commitments at the relevant Regional Committee meetings on the goal of measles elimination that are morally binding. This implies that countries should feel compelled to comply with as

many of the recommended criteria as possible, while accepting at the same time that monitoring a few specific indicators will not be feasible and alternative monitoring strategies will need to be implemented.

Countries also discussed the definition of measles and rubella elimination on page 3 of the draft framework. As defined by WHO, a country may achieve interruption of indigenous measles or rubella virus transmission after 12 months with zero incidence of endemic measles or rubella in the presence of a well-performing surveillance system, but regional verification of measles and rubella elimination requires ≥ 36 months with zero incidence of endemic measles or rubella in all 53 Member States. In the case of the Netherlands, where an outbreak is anticipated in 2011 among susceptible vaccine refusers, elimination may still be maintained if the outbreak is stopped in < 12 months and does not spread extensively into the general population. Italy, which was not able to attend, provided its input via written comments.

The Chair then led the participants through the draft framework soliciting and recording their specific comments and suggestions in order to finalize the text.

Structure and function of Measles and Rubella Elimination Regional and National Measles Verification Commissions

The basic structure and terms of reference (TORs) of the regional and national commissions for the verification of measles and rubella elimination (MRRVC and MRNVCs, respectively) were presented. Members of the MRRVC and MRNVCs will be independent, technical experts who do not participate in or have responsibility for programme implementation. However, participants suggested that members of national immunization technical advisory groups (NITAGs), who are also independent experts, might be suitable candidates for membership of MRNVCs. The MRRVC will serve an important advocacy role in promoting the elimination goal and reminding countries of the need to accelerate the implementation of activities leading to elimination.

The core task of the MRRVC is to verify that Member States have interrupted indigenous measles or rubella transmission after 12 months with zero incidence of endemic measles or rubella in the presence of a well-performing surveillance system, and eventually to declare the Region measles- or rubella-free. The Regional Director of the WHO European Regional Office will appoint the 5-7 MRRVC members and the Regional Office will serve as Secretariat to the Regional Commission. It is proposed that the MRRVC will report to the Regional Director and share its findings with the European Technical Advisory Group of Experts on Immunization (ETAGE).

The MRNVCs' core task is to compile, analyze and report annually the evidence to MRRVC to support the claim that its Member State has no indigenous transmission of measles or rubella virus. In each country, the minister of health will appoint four to five commission members who will meet at least twice per year. The MRNVCs will be encouraged to draw attention to the elimination goal, accelerate national advocacy, and begin the national self-assessment process. The data compilation and analysis work of the MRNVCs should be conducted in close collaboration with respective national immunization programmes. In countries with federal governments, it will be important to ensure full involvement of the state/regional units responsible for implementation of the immunization programme.

A proposed timeline for the creation of MRRVC and MRNVCs was presented. Terms of reference, guidelines and standardized report forms will be finalized during the first quarter of 2011. The first meeting of the MRRVC is proposed for November 2011, and countries will be encouraged to form their respective MRNVCs in early 2012. It was noted that the Russian Federation has already initiated the process by establishing its MRNVC and holding a first meeting to assess the current status of surveillance data. The representative from Turkey noted that her country is ready to initiate the process and establish its MRNVC

Discussion

Turkey raised a general concern about how the postponement of the regional elimination goal to 2015 which may provoke some loss of political commitment towards the achievement of the goal. Germany also noted that the postponement may be used as an opportunity in some countries to bring forward other public health priorities such that those countries may make little progress on measles and rubella elimination and thus find themselves no closer to achieving the elimination goal as the 2015 deadline approaches.

The elimination goal, that is, the date by which the interruption of indigenous measles and rubella transmission is verified is 2015, but countries should understand that the complete documentation process will require an additional 36 months and will take the Region through to 2018.

The Russian Federation noted that some impediments still remain to the achievement of the elimination goal. Measles elimination is further advanced than rubella elimination in the Russian Federation.

Poland anticipates that a new measles and rubella elimination plan will be launched in 2011 and this may help to resolve some of the serious challenges that the country faces.

Netherlands is concerned about the potential complacency that appears to have developed vis-à-vis the elimination goal, given that the attitude of communities that refuse vaccine is rigid and extremely difficult to influence.

Israel described that the most pressing problem they face relates to structural issues that cause certain population sub-groups to continue to exhibit low vaccination coverage.

ECDC noted the need to collaborate closely with WHO EURO as the process of verification goes forward. The process of verification will undoubtedly go through changes and modifications during the course of its implementation so that flexibility and good judgment will be required going forward.

ECDC suggested that collaboration with industry should be explored with a view to harnessing industry's communications potential for advocating in favour of the elimination goal. Industry groupings such as the European Vaccine Manufacturers' Association may serve as a channel to advocate more effectively for elimination activities.

Finland provided an anecdote about a university professor who asked his colleagues what they knew about measles. They responded that measles was a childhood disease that they had never seen and that has been eradicated. Therefore, the lesson for young clinicians should be

“don’t stop suspecting measles”, despite the fact that these professionals may never have seen a case.

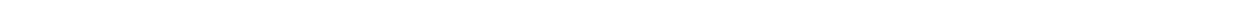
The importance of undertaking more detailed risk assessments and developing more effective communications strategies was strongly emphasized. Lessons have been learned and need to be applied. Information alone does not necessarily change behavior, so that mapping parents’ behavioural determinants and taking appropriate steps will become increasingly important. The Regional Office is about to establish a regional vaccine communication working group and develop a regional vaccines communication strategy that will attempt to identify best practices and apply lessons learned in other disciplines to vaccines and immunization. The final goal is to implement successful approaches to sustaining behavioural change. Part of this initiative will require a careful assessment of the gate-keeper role of clinicians and other health care workers, in order to identify mechanisms to ensure their attitudes towards vaccination are consistent with the regional elimination goals.

The WHO European Regional Office is planning to provide further assistance to countries to better understand and identify mechanisms to ensure sustainability in operational planning and financing for all aspects of immunization, including the achievement of the regional elimination goals.

Recommendations

1. Countries recommended that WHO Regional Office for Europe to send a letter from the Regional Director to all ministers of health to explain the rationale for postponing the elimination target date from 2010 to 2015, and encouraging Member States to keep the momentum strong and not to allow any complacency to develop.
 2. Countries recommended that a sixth criterion related to public acceptance and effective communication be added to the table of the five essential elimination criteria required for the process of documentation and verification mentioned in the framework.
 3. Countries recommended that the optimum age for administration of the second dose of MCV/RCV be reviewed.
 4. The WHO Regional Office for Europe should finalize and disseminate the framework.
 5. Upon receiving the framework, countries are encouraged to review their national data and prepare to submit the first annual report on the status of performance indicators, to.
 6. Finland was encouraged to estimate and publish the costs associated with imported and import-related measles and rubella cases, in order to provide advocacy material for the European Region to show the cost of delaying the elimination goal.
 7. To further disseminate information and mobilize advocacy for regional measles and rubella elimination, it was proposed that the WHO Regional Office for Europe, ECDC, and Member States use all possible channels available to place measles and rubella elimination on the agenda of as many appropriate platforms as possible. The potential list included: vaccinology conferences, meetings of national professional medical and nursing
-

associations, and in the teaching curricula in medical and nursing schools throughout the WHO European Region.



Annex 1 Programme

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR EUROPE

WELTGESUNDHEITSORGANISATION
REGIONALBÜRO FÜR EUROPA



ORGANISATION MONDIALE DE LA SANTÉ
BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Consultation on the proposed framework for verifying measles and rubella elimination in the WHO European Region

Copenhagen, Denmark, 2-3 December 2010

2 December 2010

Programme

2 December 2010

08:45-09:00	Registration	
09:00-09:30	Welcome, introductory remarks Confirm Chair, Rapporteur Participant introductions	
09:30-10:15	Status of measles and rubella elimination in the WHO European Region: <ul style="list-style-type: none">• feed back from the RC60• global measles eradication feasibility	Rebecca Martin
10:15-11:00	Self-assessment tools for monitoring national progress towards measles and rubella elimination: <ul style="list-style-type: none">• Discussion (15 min)	Pier Luigi Lopalco
11:00-11:30	<i>Coffee/tea</i>	
11:30-12:30	Status of measles and rubella elimination in three selected countries (15 min each) <ul style="list-style-type: none">• Finland – Achieving the interruption of virus transmission• Russian Federation – National SIA to increase immunity in population• Netherlands - Challenges in achieving measles and rubella elimination	Irja Davidkin, Olga Tsvirkun; Susan Hahné;
12:30-13:30	<i>Lunch</i>	

13:30-14:00	<i>Discussion</i>	
14:00-15:30	Presentation of the Framework for verifying measles elimination in WHO European Region: <ul style="list-style-type: none"> • analysis of population immunity profile • epidemiological analysis of disease incidence • virological analysis of confirmed cases and outbreaks • overall quality of epidemiological surveillance • sustainability of the national immunization programme 	Sergei Deshevoi Dragan Jankovic Mick Mulders
15:30-16:00	Coffee/tea	
16:00-17:30	<u>Panel discussion:</u> Components of the framework Moderator: Peet Tüll	Aslihan Coskun Ehud Kaliner
18:00 -	Reception - Cafeteria	

3 December 2010

09:00-10:00	Structure and function of the Regional and National Verification Commissions <ul style="list-style-type: none"> • terms of reference • membership • reporting Discussion	Dragan Jankovic
10:00-11:00	Current obstacles to achieving measles and rubella elimination	Tomasz Szkoda Sabine Reiter
11:00-11:30	<i>Coffee/tea</i>	
11:30-12:30	Brainstorming session: potential solutions to identified obstacles	WHO/Europe
12:30-13:30	<i>Lunch</i>	
13:30-14:45	Recommendations and conclusions:	
14:45-15:00	Closing remarks	

Annex 2 Participants

WORLD HEALTH ORGANIZATION
REGIONAL OFFICE FOR EUROPE

WELTGESUNDHEITSORGANISATION
REGIONALBÜRO FÜR EUROPA



ORGANISATION MONDIALE DE LA SANTÉ
BUREAU RÉGIONAL DE L'EUROPE

ВСЕМИРНАЯ ОРГАНИЗАЦИЯ ЗДРАВООХРАНЕНИЯ
ЕВРОПЕЙСКОЕ РЕГИОНАЛЬНОЕ БЮРО

Consultation on the proposed framework for verifying measles and rubella elimination in the WHO European Region

Copenhagen, Denmark, 2-3 December 2010

2 December 2010

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