

**18TH MEETING  
OF THE EUROPEAN  
TECHNICAL ADVISORY GROUP  
OF EXPERTS ON IMMUNIZATION  
(ETAGE)**

**12–13 November 2018  
Copenhagen, Denmark**



## **Abstract**

The 18th meeting of the European Technical Advisory Group of Experts on Immunization (ETAGE) took place in Copenhagen Denmark on 12 –13 November 2018 to review and discuss immunization activities and developments in the WHO European Region and provide advice to the WHO Regional Office on appropriate activities. Advice and guidance from ETAGE were sought on school entry vaccination checks, vaccination of healthcare workers and vaccination of pregnant women. Also discussed were the response to challenges faced in middle-income countries lacking donor support, cervical cancer elimination and the contribution of human papillomavirus (HPV) vaccination, hepatitis B control, strengthening the capacities and opportunities for collaboration of national immunization technical advisory groups (NITAGs), and addressing challenges to vaccination uptake among migrants, particularly urban migrants.

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**Abbreviations**

CDC	US Centers for Disease Control and Prevention
ECDC	European Centre for Disease Prevention and Control
ETAGE	European Technical Advisory Group of Experts on Immunization
EVAP	European Vaccine Action Plan 2015-2020
GNN	Global NITAG Network
GVAP	Global Vaccine Action Plan
HCW	healthcare worker
HPV	human papillomavirus
JRF	WHO/UNICEF Joint Reporting Form
MIC	middle-income country
NITAG	National Immunization Technical Advisory Group
RNN	Regional NITAG Network
SAGE	Strategic Advisory Group of Experts on Immunization
TIP	Tailoring Immunization Programmes
UNICEF	United Nations Children's Fund
VPI	Vaccine-preventable Diseases and Immunization Programme of the WHO Regional Office for Europe
WHA	World Health Assembly

**Contents**

Abbreviations.....	2
Executive summary.....	4
Introduction.....	4
Session 1. School entry vaccination checks.....	7
Session 3. Vaccination of pregnant women.....	8
Session 4. Update on NITAG strengthening and collaboration.....	9
Session 5. VPI response to challenges faced in MICs with no donor support.....	10
Session 6. Cervical cancer elimination and contribution of HPV vaccination.....	10
Session 7. Addressing vaccination uptake challenges among urban migrants.....	11
Session 8: Update from ETAGE Working Group on Hepatitis B.....	12
Conclusions and recommendations.....	13

## Executive summary

The 18th meeting of the European Technical Advisory Group of Experts on Immunization (ETAGE) was held on 12–13 November 2018 in Copenhagen, Denmark to review and discuss immunization activities and developments in the WHO European Region and provide advice to the WHO Regional Office for Europe (Regional Office) on appropriate actions.

Advice and guidance from ETAGE were sought on school entry vaccination checks, vaccination of healthcare workers, vaccination of pregnant women and strengthening and collaboration with national immunization technical advisory groups (NITAGs). Also discussed were the response to challenges faced in middle-income countries (MICs) lacking donor support, cervical cancer elimination and the contribution of vaccination against human papillomavirus (HPV), hepatitis B control, and addressing challenges to vaccination uptake among migrants, particularly urban migrants.

Among its conclusions and recommendations, ETAGE urged action to support the checking of children's immunization status at the time of primary school entry so that parents can be informed of any missed vaccination, and opportunities presented for easy access to catch-up immunization as appropriate. ETAGE recommended vaccination of healthcare workers (HCW), including medical students, and encouraged research to understand the attitudes of HCWs towards immunization better. ETAGE also recommended increased support for vaccination of pregnant women, women considering having children and those who have recently delivered. This includes rubella vaccination for women prior to conception, and, depending on local epidemiological evidence and priorities, may also include influenza and available pertussis vaccines. ETAGE fully endorsed the strategy of identifying regional focus areas and encouraged joint action between MICs with no donor support, while also acknowledging considerable challenges to strengthening and sustaining immunization services in these countries.

## Introduction

ETAGE meets annually to review the progress of the Vaccine-preventable Diseases and Immunization Programme (VPI) towards the European Regional disease prevention goals. The 18<sup>th</sup> meeting of ETAGE was conducted on 12–13 November 2018 in Copenhagen, Denmark. Professor Adam Finn (ETAGE chair) chaired the meeting; Dr Ray Sanders was rapporteur.

The objectives of the meeting were to request advice and guidance from ETAGE on the following key topics and issues:

- school entry vaccination checks;
- vaccination of HCWs;
- vaccination of pregnant women.

Opportunity was taken to brief ETAGE members on the following topics and issues:

- response to challenges faced in MICs with no donor support;
- NITAG strengthening and collaboration;
- cervical cancer elimination and contribution of HPV vaccination;
- update from the ETAGE Working Group on hepatitis B control;
- addressing vaccination uptake challenges among urban migrants.

## Opening remarks

The meeting was opened on behalf of the WHO Regional Office by Dr Nedret Emiroglu, Director of Programme Management, Director of the Division of Health Emergencies and Communicable Diseases. Dr Emiroglu shared information on recent changes to the management structure of the VPI team and on the planned appointment of a new Programme Manager for VPI. She also shared Member States' favourable response to the European Vaccine Action Plan (EVAP) midterm review presented at the recent Regional Committee meeting in Rome, Italy and expressed the need now to turn political commitment into practical actions.

## Feedback from the recent SAGE meeting

Dr Joachim Hombach (WHO headquarters) presented highlights from a meeting of the Strategic Advisory Group of Experts (SAGE) on Immunization held in Geneva, Switzerland on 23-25 October 2018. Following its review of the Global Vaccine Action Plan (GVAP), SAGE recommended that countries, regions and global immunization partners commit to developing an integrated post-2020 global immunization strategy. GVAP priorities need to be adapted to reflect the changing contexts and lessons learned, and should drive immunization activities until the end of the Decade of Vaccines (2011–2020). SAGE also recommended that research into immunization should be enhanced and expanded. Several steps have been taken towards developing a post-2020 global immunization strategy and it was announced that the strategy should be discussed at the World Health Assembly (WHA) in 2020.

SAGE received a partner report from GAVI, which placed added emphasis on the importance of close alignment of GAVI activities and vaccine investment strategy with WHO policy. SAGE also received a report from the PREVENT initiative, funded by the Wellcome Trust, engaged in providing pregnant women with vaccines to protect against outbreaks and epidemics. PREVENT is developing a roadmap for the inclusion of the interests of pregnant women in the development and deployment of vaccines against emerging pathogens. SAGE members welcomed the initiative, which is timely with regard to current research efforts to develop vaccines against emerging infectious diseases and projects aimed at standardizing the reporting of pregnancy outcomes.

A measles and rubella situation update revealed a resurgence of measles in all WHO regions except the South-east Asian and Western Pacific regions, with loss of elimination status in the Americas (Venezuela) and a major increase in reported cases in the European Region. Reflecting current concerns the WHO Director General will report to the WHA in 2020 "on the epidemiological aspects and feasibility of, and potential resource requirements for, measles and rubella eradication". SAGE stressed that the vaccination campaigns are resource intensive and not sustainable, emphasizing the need for them to be linked to efforts to improve routine immunization. New guidance is being issued on identification of measles and rubella immunity gaps together with strategies to increase population immunity using a Continuous Quality Improvement approach.

SAGE welcomed the WHO Director General's multi-stakeholder launch in May 2018 of a "Call for Action Toward Cervical Cancer Elimination", noted the progress being made with the introduction of HPV vaccines into immunization schedules but also noted that only 31% of MICs and 12% of lower-income countries had introduced HPV vaccination to date. While the WHO-recommended 2-dose schedule targeted at girls aged 9-14 years remains valid, the need for further research on vaccination schedules and comparative effectiveness was stressed. Concerns were expressed over short- to mid-term vaccine supply constraints and the need for a globally equitable vaccine allocation mechanism.

A review of the lessons learned from recent diphtheria outbreaks has demonstrated the need for improved quantity and quality of data on vaccination coverage, population size and disease surveillance at both national and sub-national levels, together with increased laboratory capacity for disease surveillance. The WHO Immunization Information System is being established to improve globally available data, and expanding collaborations with other stakeholders and United Nations agencies are investigating opportunities for better use of existing data at country level.

## Discussion

While there are some very good examples of the successful introduction of HPV vaccine in the European Region, there remain questions over how best to use a vaccine that is currently in limited global supply. This is of particular concern as more countries (including in the European Region) move towards inclusion of boys in the vaccine target population. There are currently only two global producers of HPV vaccines, producing three different vaccines, with the potential for two additional vaccines in the pipeline. SAGE noted the equivalence of the currently licensed vaccines in relation to the cervical cancer elimination effort.

## Update on the work of VPI

Dr Siddhartha Datta (VPI) provided an overview of recent VPI activities and achievements. The European Vaccine Action Plan 2015–2020 (EVAP) midterm review showed that only three of the six EVAP goals were on track (sustaining polio-free status; evidence-based decision making for introduction of new vaccines; achieving financial sustainability for immunization), that the status of one (control of hepatitis B) required validation, that one (meeting vaccination coverage targets) was at risk, and that one (elimination of measles and rubella) had not been achieved.

While overall regional vaccination coverage remained steady at 92-94% from 2014 to 2017, the number of Member States achieving coverage of  $\geq 95\%$  declined from 36 to 32, and the number with national coverage at  $< 90\%$  increased from 4 to 8 over the same time period. The suboptimal vaccination coverage at local level makes several countries in the Region prone to disease outbreaks, as demonstrated by the very large number of children and adults infected with measles in the first 8 months of 2018.

Immunization inequalities remain a concern in the Region with several MICs lagging behind high-income countries in the provision of immunization services. Vaccine stock-out events, due to vaccine supply shortages and procurement delays, also disproportionately affect MICs. The Middle-income Country Roadmap was developed to improve health and health security through immunization.

VPI's Accelerated Disease Control Team has continued its work on sustaining polio-free status and has provided global leadership in a number of areas including development of a global polio certification risk **assessment** tool. The Immunization and Surveillance Data Team is developing a web-based immunization data validation tool, has supported introduction of paediatric diarrhoea surveillance, and established measles/rubella elimination country profiles. The Immunization Demand Team has provided leadership in behavioural insights research related to immunization, including thorough support of several Tailoring Immunization Programmes (TIP) projects and development of a new edition of the TIP guide. The Team has updated guidance documents on facing vocal vaccine deniers, responding to a crisis in vaccine confidence and responding to questions on HPV vaccination, supported Region-wide advocacy events such as European Immunization Week. The Immunization System Strengthening Team has focussed programmatic support on ensuring financial sustainability in GAVI transition countries and reducing inequity of immunization services for urban migrants in GAVI support countries. The team has also continued to

support NITAG strengthening efforts, contributed to the WHO initiative Market Information for Access to Vaccines and supported development of national guidelines on adverse events following immunization (AEFI) surveillance assessment.

## Session 1. School entry vaccination checks

Dr Siddhartha Datta, supported by ETAGE members Dr Ole Wichman and Dr Roman Prymula, provided a presentation on the relevance of encouraging school entry vaccination checks. In its endorsement of the Midterm Review of the Measles/Rubella Global Strategic Plan 2012-2020, SAGE noted that high contact rates after school entry and immunity gaps in school-age children together are a strong driver of disease transmission and recommended that all countries institute school entry checks for immunization status. The WHO position paper on measles (2017) recommended that children should be screened for measles vaccination history at the time of school entry, and those lacking evidence of receipt of two doses should be vaccinated. This is also an opportunity to check for receipt of other vaccines, and school-based vaccinations have proven to be an effective strategy in many countries for achieving high coverage and preventing outbreaks of vaccine-preventable diseases.

VPI recently conducted a scoping review of immunization checks at school entry and practices of school-based vaccination in the WHO European Region based on information provided by 46 Member States in the annual WHO/United Nations Children's Fund (UNICEF) Joint Reporting Form (JRF). According to the data provided, 19 Member States have 'mandatory' requirements for proof of vaccination at school entry, although no standard definition of what constitutes a 'mandatory' requirement currently exists. While the WHO European Region is diverse and health and education policy and practices vary between countries, primary school entry for all countries is between 5 and 7 years of age. Forty-five countries administer the second dose of measles-containing vaccine slightly before, or at the same time as, school entry. While school policies can differ and resources for health-related activities vary, the generally high enrolment rates make school-entry vaccination checks and school-based immunization potentially workable options in the Region. The JRF data provided little insight into how and why policies are implemented and no information on the results of specific policies. Currently available findings of operational research on the effectiveness of school-entry vaccination checks are heavily focused on the United States of America. There is therefore a need to document school vaccination mandates and best practices from high-, middle- and low-income countries in the European Region.

### Discussion

ETAGE recognized the complexities of this issue but also acknowledged the value of conducting administrative vaccination checks on child entry to primary education. These checks not only provide an opportunity to collect immunization data, but also opportunities to promote and provide vaccination. While strongly supporting school-entry checks and school vaccination programmes, ETAGE was not in a position to recommend these checks and services be made mandatory, in part because there is currently no accepted standard definition of what would constitute a 'mandatory' requirement.

Many Member States do carry out school-entry checks and provide school vaccination services, but further operations research is required to document how this is being implemented, the outcomes, and lessons learned. Given the complexities involved it is unlikely that a single system will be



appropriate for all countries, but better documentation on what is currently being done could be used to develop broad guidelines based on a best practices approach.

## **Session 2. Vaccination of healthcare workers (HCW)**

Dr Patrick O'Connor (VPI), supported by ETAGE Members Dr Antonietta Filia and Dr Federico Martinon-Torres, provided a presentation on vaccination for HCWs. The risk of vaccine-preventable diseases, particularly measles at present, in healthcare settings remains a serious concern and nosocomial infection puts both HCWs and patients at risk of severe morbidity and mortality. WHO recommends countries develop national policies for vaccination of HCWs and SAGE has recommended that verification of measles and rubella vaccination and/or immunity in HCWs be introduced into standard infection control guidelines. It is now pertinent to ask whether the Regional Office should develop standards on HCW immunization practice, and if so, which partners should be involved in the process of development and how those partners can best advocate for the vaccination of HCWs.

### **Discussion**

While WHO has recommended vaccination of HCWs on an antigen-by-antigen basis, there has been no systematic discussion on standards and practices for HCW immunization. It is also recognized that there is no standard definition of a 'healthcare worker'; the term covers a very broad range of professions and occupations and has different connotations in different countries. While it is generally understood that susceptible HCWs can potentially play a significant role in transmission of vaccine-preventable diseases to patients and the community, very little conclusive data are available on the impact they have on transmission. Impact is most likely dependent on the specific disease and level of HCW-patient contact. An exception to this is measles: a body of evidence on the important role HCWs can play in nosocomial transmission is being established, and it may be possible to use the example of measles to drive development of broad standards for HCW vaccination.

While many Member States have policies in place for vaccination of HCWs, often on a voluntary basis, implementation of these policies is not adequately monitored and is believed often to be incomplete. These policies generally result from occupational health recommendations, aimed at protecting HCWs, and may not be compatible with managing public health risks and requirements. Also, HCWs' roles in promoting and providing vaccination to their patients and in their communities also needs to be stressed, particularly during outbreaks and epidemics. Available information suggests that a significant proportion of HCWs do not accept vaccination and a better understanding of the barriers to their acceptance of vaccines is needed.

## **Session 3. Vaccination of pregnant women**

Dr Mark Muscat (VPI) provided an overview of and ETAGE members Adam Finn and Alenka Kraigher led a discussion on the current SAGE recommendations on vaccination of pregnant women and the rationale for developing a strategy for Member States to adopt this strategy. WHO has published position papers in which vaccination against pertussis, influenza, diphtheria and tetanus during pregnancy is encouraged, to provide immunity for mothers and their infants. Despite the SAGE recommendations there is little easily available information on routine maternal vaccination in the Region, and there are currently no Regional recommendations on this. VPI requested ETAGE to

consider its role in advocating for and supporting Member States to ensure that the SAGE recommendations for vaccinations in pregnancy are reflected in national vaccination schedules.

### **Discussion**

ETAGE recognized the significant health benefits of immunizing women during pregnancy and the available evidence base demonstrating these benefits. Greater efforts are needed, however, to collect and collate this evidence at regional level and to share the data and conclusions with Member States. Discussions on maternal immunization tend to be antigen-specific because different antigens offer different benefits to the mother and the child, and risks from infection change over the period of gestation and during the neonatal period.

The role of ETAGE is to encourage NITAGs to investigate potential benefits of maternal immunization for their countries and make evidence-based proposals based on existing national immunization services, identified gaps in immunity or services and national vaccine use and safety legislation. Maternal immunization is a rapidly developing field and NITAGs need to be aware of the latest developments and available information to make the best-informed decisions. There is also a need to identify key personnel to lead the programme and develop national training materials. It will also be necessary to reach out to relevant HCWs to understand the barriers to acceptance of maternal immunization, as these will not be the same in all countries, and to develop locally-relevant responses.

## **Session 4. Update on NITAG strengthening and collaboration**

Dr Luidmila Mosina (VPI) provided an overview of activities undertaken by the Secretariat to strengthen NITAGs and increase NITAG collaboration. As of October 2018, 48 of the 53 Member States in the Region had established NITAGs including 18 of the 21 MICs. In 2017, based on available data, 36 of the 47 NITAGs met all six process indicators for functionality of their NITAGs. The Regional Office conducted evaluations of NITAGs in MICs using a standardized evaluation tool. The evaluations revealed that many of the newly established NITAGs continue to face challenges, including in establishing a process for the development of NITAG recommendations, improving the quality of NITAG recommendations and reports, and lack of formalization of communication with national government authorities. To support NITAGs in building capacity, a standardized set of training materials has been developed. The materials include sets of presentations for a 4-day training workshop, simulation exercises and descriptions of best practices. Training materials were piloted in a WHO regional training workshop in May 2018. A Regional NITAG network (RNN) has been proposed to facilitate and strengthen collaboration and information sharing between NITAGs, but implementation of the network has been delayed due to lack of available funding.

### **Discussion**

There are currently two European Union funded projects aimed at supporting collaboration between NITAGs. One is an extension of the European Centre for Disease Prevention and Control (ECDC) VENICE projects aimed at establishing a network of NITAGs within the European Union, the second is a European Commission-funded project exploring the possibilities for collaboration between NITAGs, including some NITAGs from outside of the European Union. Both of these projects are at an early stage of development.

While this topic was presented for information only, ETAGE requested a full review and discussion of programmatic issues at its next meeting. Links between the WHO Euro team and ETAGE and the ECDC initiative are also being established.

## Session 5. VPI response to challenges faced in MICs with no donor support

Dr Niyazi Cakmak (VPI) provided a presentation on the VPI response to challenges faced by MICs. In light of increased international attention on restricted access to vaccines in MICs and at the request of SAGE, in June 2014 WHO convened a MIC Task Force to develop a coordinated strategy and plan of action. The proposed MIC Strategy focuses on four main areas: i) strengthening evidence-based decision-making; ii) enhancing political commitment and ensuring financial sustainability of immunization programmes; iii) enhancing demand for and equitable delivery of immunization services; iv) improving access to timely and affordable supply.

The Regional Office conducted a regional analysis of country performance and a pilot in-country assessment to determine the situation in the Region and to refine the menu of regional focus areas to address challenges faced by MICs with no donor support. This analysis demonstrated that immunization programme performance of the MICs with no donor support, in terms of protecting individuals against more vaccine-preventable diseases, and elimination of measles and rubella, is significantly below that of other country groups in the Region and far from achieving EVAP targets set for 2020. A pilot in-country assessment, conducted in Romania, validated the relevance of the global strategy and identified regional focus areas to address the challenges.

In response to the findings, VPI plans to further prioritize countries in greatest need of support and obtain commitment from priority countries to respond to identified challenges through collaborative work with WHO and international partners. A five-year immunization framework (roadmap) is being developed to provide support to national immunization programmes in accessing affordable vaccines, strengthening decision making, improving financial sustainability, addressing concerns over vaccine hesitancy and ensuring equitable access to immunization services.

### Discussion

Start-up funding for development of the roadmap has been received from the United States Centres of Disease Control and Prevention (US CDC), but with increasing international interest in supporting MICs it is expected that partner diversity will increase. The complexities of harmonizing and aligning country requirements for vaccines to establish joint procurement systems are well recognized, but despite reluctance on the part of some countries to share information on vaccine prices, there is general interest in joint procurement and the potential benefits it can bring. ETAGE looked forward to receiving further information during future meetings.

## Session 6. Cervical cancer elimination and contribution of HPV vaccination

Cervical cancer is the second most common cause of cancer deaths in women after breast cancer, and the fifth most common cause of death in women in the WHO European Region. The majority of these deaths occur in low- and middle-income countries. There are proven strategies to address cervical cancer, including vaccination to prevent HPV infection, and this is embedded in the targets

and indicators of the WHO Global Action Plan for the Prevention and Control of Non-Communicable Diseases 2013-2020. The WHO-recommended primary target population for HPV vaccination is girls aged 9–14 years.

Thirty-six Member States in the Region have introduced HPV vaccine into routine schedules, but coverage varies from 20-80%. The greatest challenges to accelerating HPV vaccine introduction will be faced in the MICs without donor support. The vaccines available are expensive and there are currently global vaccine supply constraints. Despite evidence to the contrary, fears over vaccine safety continue to arise, and further efforts are needed in supporting national immunization programmes to respond to and manage scares around HPV vaccine.

### **Discussion**

ETAGE recognizes the multiple challenges faced in this area. While gender-neutral vaccination policies would probably make HPV vaccination easier to promote and implement in some countries, vaccine supply constraints and the level of coverage achieved limit the effective target population. Aside from the direct benefits to boys, it was noted that modelling data suggest vaccination of boys contributes to cervical cancer elimination more in low-coverage settings than in high-coverage settings.

## **Session 7. Addressing vaccination uptake challenges among urban migrants**

Dr Siddhartha Datta presented on existing immunization policies and practices for migrants in the Region. Ms Katrine Bach Habersaat (VPI) presented on a situation analysis of vaccination of urban migrants in Kyrgyzstan. Dr Niyazi Cakmak and Ms Aliya Kosbayeva provided the results of a vaccination coverage cluster survey among internal migrant populations of Bishkek and Osh cities in Kyrgyzstan.

A scoping review of academic and grey literature on immunization policies, vaccine delivery practices and barriers to access and utilization of immunization services by migrants and refugees found that practices vary widely in the Region. Many Member States lack policies and strategies with specific recommendations for immunization for migrants and refugees. Inbuilt administrative barriers for undocumented migrants prohibit their entitlement to free health services including immunization. Lack of financial and human resources, in particular cultural mediators and/or interpreters, act as barriers to implementation of national immunization policies and limit systematic collection and evaluation of data for corrective actions. Socioeconomic, sociocultural and educational issues of migrants and refugees influence access to available immunization services in the host countries. The review also found evidence that various targeted locally tailored interventions were successful in improving the uptake of immunization services among migrants and refugees.

A TIP project was conducted in Kyrgyzstan to review the current situation with regard to urban migrant vaccination. Use was made of published data and reports together with on-site visits to migrant communities. Kyrgyzstan has traditionally reported high vaccination coverage, but there has been a recent trend of declining coverage in urban areas, particularly those housing a large internally migrated population. Non-registered migrants often have limited access to health services due to knowledge barriers and misconceptions, but also to lack of opportunity to access the services. Many health workers serving urban migrants do not appear to be well-informed on the legal rights of migrants and do not consider it their role to facilitate registration of migrants.

Results of the vaccination coverage survey of children aged 12-35 months conducted in two cities in Kyrgyzstan demonstrated large differences between estimates based on parents' recall versus facility-based records, but found that access to services was generally good, with high coverage for the initial doses of vaccine but significant drop-out after that. Hesitation to receiving simultaneous injections, together with a tendency to delay vaccination, were noted.

### **Discussion**

ETAGE was impressed by the work being done to address this challenge, but noted that the term 'migrants' may not be the most appropriate for this under-served population.

## **Session 8: Update from ETAGE Working Group on Hepatitis B**

Pierre Van Damme, Chair of the ETAGE Working Group provided a presentation via video link on the conclusions of a meeting of the ETAGE Working Group on Hepatitis B held in October 2018 in Moscow, Russian Federation. The meeting provided an opportunity to discuss the process of monitoring progress of the Global Strategy and the European Action plan for the health sector response to viral hepatitis in the WHO European Region and present updated information on hepatitis B serosurveys conducted in the Russian Federation and proposed for Croatia. The opportunity was also taken to review validation reports submitted by Latvia and the Netherlands and to revise the validation process based on experience with reviewing these initial documents.

The Working Group conditionally validated the report of the Netherlands as evidence of achieving the Regional hepatitis B target, but urged the country to align its vaccination schedule with the WHO recommended birth-dose policy. Validation will be confirmed after receipt of the 2017 serosurvey results. In reviewing documents submitted by Latvia, the Working Group acknowledged the progress made, but noted the suboptimal screening programme and urged that screening be improved, including serosurveys of new cohorts.

The Working Group also discussed potential mechanisms to facilitate countries' participation in the validation process. In general, greater standardization of submitted documents is needed and more information on submitting standardized information should be provided to Member States. Incomplete documentation will not be accepted for review.

### **Discussion**

Concerns were raised that few resources are available for this workstream in the Regional Office and that as the workload increases, support to countries will become unsustainable. Hepatitis B targets and their validation, reporting of birth-dose coverage and effective screening programmes will be discussed at the meeting in February 2019.

## Conclusions and recommendations

### School entry vaccination checks

#### Conclusions

- Several Member States in the Region have vaccination checks at school entry but the nature of these checks is highly heterogeneous. It would be very helpful to have more detailed information on what systems already exist, how they are implemented, how they are used and lessons learned.
- Collection of such data for all children, given appropriate permissions and/or anonymization, may have additional potential value, including informing parents of vaccination coverage in individual schools and providing public health authorities with detailed coverage data at the local level. Such checks should, where possible, be linked to easy access to catch-up immunization when required, for example in primary care or through school-based immunization services.
- While there are several levels at which checks on vaccination status could be conducted, from kindergarten/day-care entry to university entry, primary school entry checks offer an achievable goal as a minimum requirement. Additional such checks, for example at secondary school entry and at entry into higher education, may have similar value and may be feasible in some settings.
- To conduct these activities, the mandates of ministries of health and education may require review and revision to ensure that both sectors work collaboratively.
- Further operational research to reconfirm beneficial consequences of vaccination checks is required to provide information to parents/guardians, schools, family doctors and the public health system.

#### Recommendation

- ETAGE recommended that an administrative check of all children's immunization status be performed at the time of primary school entry in order to inform the parents of the child's potential vulnerability to preventable infections at a time of increased likelihood of exposure. In this context, the value of, and need to, protect their own child as well as other children should be noted.

### Vaccination of healthcare workers (HCW)

#### Conclusions

- There is no single concise definition of HCW as the term covers a broad range of professions and work activities, and professional exposure to risk varies from very low to very high. The definition of the target HCW group needs to be developed as per risk assessment for each specific vaccine.
- WHO has published a series of position papers which provide recommendations on vaccination of HCWs on an antigen-by-antigen basis.

- There is a variable body of evidence available on the increased risk of infection in HCWs and the role they play in the transmission of vaccine-preventable infections. The example of measles could drive the development of standards and requirements for vaccination of HCWs against a range of infectious diseases.
- In addition to the occupational health benefits of direct risk reduction for individuals who may be at enhanced risk of exposure to vaccine-preventable infections by virtue of their work, vaccination of HCWs also has the potential to enhance strategies to reduce hospital-acquired infections and should therefore be seen as part of wider infection control efforts. Cooperation between occupational health and infection control teams with regard to the immunization programme is likely to be highly beneficial.
- For certain infections, particularly in the context of outbreaks and epidemics, HCW immunization may contribute to sustaining effective function of healthcare services. Since HCWs can influence the behaviour of others through their knowledge and communication, enhancing their understanding and awareness of the importance of immunization may have wider benefits.
- Precise policies with respect to specific vaccines will vary with local epidemiology and priorities and, in some cases, may focus on specific groups of HCWs whose patients are at especially high risk.
- There is an urgent need to gain a more comprehensive understanding of the nature and extent of barriers to HCW vaccination, including attitudes to vaccination, existence of knowledge gaps and effective delivery.

#### Recommendations

- ETAGE recommended that NITAGs and immunization programmes consider the merits of offering targeted immunization to HCWs with patient contact including medical students..
- ETAGE also emphasized the importance of relevant local research to understand the attitudes of HCWs towards immunization and urged Member States to collect accurate data on coverage and disease burden and thus achieve effective strategies.

#### **Maternal immunization around childbirth**

##### Conclusions

- Evidence is available for the safety and effectiveness of a limited range of vaccines used during pregnancy. It is likely that additional vaccines to protect the infant postnatally will become available alongside new evidence concerning vaccines already in use, so that policies should be kept under regular review.
- The critical importance of collecting data on background adverse event rates and enhancing vaccine safety surveillance was emphasized.
- The importance of full engagement with HCWs who are the primary source of advice for pregnant women (most commonly obstetricians or midwives) was emphasized. Such colleagues' advice should be sought in programme planning and they should have training on the value and potential impact and safety of maternal vaccine programmes.

- Maternal immunization could leverage the recent WHO antenatal care guidelines that call for eight visits during pregnancy and could be used as an opportunity to collaborate with the maternal health programmes by defining and delivering a package of interventions at each visit, which includes the relevant vaccines, in addition to the other required interventions at those visits.

#### Recommendation

- ETAGE recommended that NITAGs and national immunization programmes consider the benefits of offering appropriate vaccines in pregnancy as well as to women considering having children and those who have recently delivered. Such local recommendations should be governed by local epidemiological evidence and priorities, but may include influenza and available pertussis vaccines, which generally contain other antigens, including tetanus and diphtheria, which may be valuable in some settings. The value of rubella vaccination (usually as MMR) for women prior to conceiving should also be borne in mind.

#### **NITAG strengthening and collaboration**

##### Conclusions

- ETAGE acknowledged the substantial progress that continues to be made in the Region in establishing NITAGs and strengthening their capacities in the face of the currently limited human and financial resources available through the WHO Regional Office.
- The Global NITAG Network (GNN) is now established, with a steering committee nominated and membership growing. NITAGs in the European Region are strongly encouraged to participate in this network.
- ETAGE endorsed proposals for a Regional NITAG Network (RNN) to be established and noted the continuing efforts made by the WHO Secretariat to raise funding for implementation of the Network.
- ETAGE noted the development of two synergistic European Commission/ECDC projects to stimulate and support collaboration between NITAGs and strengthen NITAG capabilities. ETAGE looked forward to hearing of the positive outcomes from these projects in future meetings.

#### **Response to challenges faced in MICs with no donor support**

##### Conclusions

- ETAGE acknowledged the considerable body of work performed by the WHO Regional Office in conducting a regional analysis of country performance and piloting an in-country assessment of the challenges faced by these countries.
- While fully endorsing the strategy of identifying regional focus areas and encouraging joint action between Member States, ETAGE acknowledged the considerable challenges to strengthening and sustaining immunization services in these countries.
- Prioritization of countries in greatest need, development of the roadmap for south-eastern European countries and mobilization of resources for implementation of action plans are all positive steps and ETAGE looked forward to receiving reports of further progress in future.



### **Cervical cancer elimination and contribution of HPV vaccination**

#### Conclusions

- ETAGE recognised and supports the role WHO can play in coordinating a coherent response to achieving elimination of cervical cancer through development of national elimination plans that build upon current cancer prevention and control strategies implemented through existing services.
- It was recognized that there remain a number of unresolved technical challenges, including the effectiveness of single dose HPV vaccine schedules, inclusion of males into the vaccination target population, global vaccine supply constraints and ongoing public concerns over vaccine safety and acceptance.

### **Addressing vaccination challenges among (urban) migrants**

#### Conclusion

- Recognising the complexities surrounding this important challenge to vaccination in the Region, ETAGE acknowledged the quality and scope of work being conducted by the VPI team, and looked forward to receiving reports of further progress in future.

### **Report from the ETAGE Working Group on Hepatitis B**

#### Conclusion

- ETAGE noted with approval the progress being made in the Region towards hepatitis B control and endorsed the work done by the ETAGE Working Group in developing and introducing a system for validation of national control achievements.

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## The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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