

MEASLES ELIMINATION 2010 TARGET: THE NEED TO MEET THE SPECIFIC RISK GROUP

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Substantial progress has been made within the World Health Organization European Region in recent years towards the measles and rubella elimination targets for 2010. These 2010 targets were set in 2005 by the WHO European Regional Office for Europe, following the approval of the Resolution EUR/RC55/R7 [1,2]. In 2005, 28 (54%) of 52 WHO member states reported a measles incidence of < 1 per million population (one indicator for measuring measles elimination status) and by 2006, 50 (96%) had introduced rubella vaccine into their national programmes. In 2002, member states began reporting measles cases by age and vaccination status to WHO on a monthly basis [3] and case-based reporting was implemented in 2003. Since that time, the number of countries reporting case-based data has increased from one in 2003 to 23 in 2006. In 2006, countries have been asked to report rubella cases monthly (either aggregate or case-based). The WHO European Region measles/rubella laboratory network has also been strengthened through regular laboratory assessments and proficiency testing and by having subregional meetings.

The past two years have been challenging, with several large outbreaks in the European Region. The outbreaks in Romania and the Ukraine [4] were the source of measles outbreaks in a number of EU countries, including Estonia, Germany, Lithuania, Portugal, Poland and Spain. These primary and secondary outbreaks have identified susceptible people in some countries which had already achieved very good levels of measles control. The outbreaks have also demonstrated the current capacity for investigation at the local level, including the collection of laboratory specimens for virus isolation/ detection, and the capabilities of the measles/rubella laboratory network for tracking specific measles virus genotypes and subtypes.

The paper in this issue of *Eurosurveillance* [5] describing the measles outbreak in La Rioja identifies some of the challenges faced by countries in the European Region as we move towards measles elimination. All countries need to have strong epidemiological surveillance in place to detect importations rapidly and allow quick response to outbreaks when they occur. The ability to epidemiologically and virologically link measles cases with a source is critical for assessing the interruption of endemic transmission within and between countries in the European Region. The D6 measles virus genotype causing disease in La Rioja was genetically identical to the strain causing disease in the Ukraine, based on the sequence of the 450 nucleotides of the C-terminus of the N (nucleoprotein) gene, the single most variable part of the measles genome.

The importance of healthcare workers being immune to measles is demonstrated in the La Rioja outbreak. Many healthcare workers

may have received none or only one dose of measles vaccine, yet they have not been exposed to measles because virus circulation has diminished with vaccine use. Ensuring that all healthcare workers are adequately protected is key to preventing healthcare-associated infections. Immunisation records of healthcare workers should be reviewed and careful consideration given to ensuring that all have received two doses of measles vaccine, unless they were born well before measles vaccine was introduced.

The high proportion of measles cases observed in children aged 15 months or younger is noteworthy, given this is younger than the recommended age in La Rioja for the first dose of measles vaccine. The most effective primary prevention strategies for measles among those younger than the age of first dose are to ensure

high levels of immunity among older siblings and caregivers. Outbreaks such as the one in La Rioja require that public health officials develop interventions customised to meet the specific risk group based on a thorough epidemiological investigation. Once the decision has been taken to immunise infants at an age younger than the routine first dose, it is also necessary to decide when the practice should be discontinued. Outbreaks such as this could justify the decision for countries where the first dose of measles vaccine is currently given at 12 months not to further postpone the age of first dose, at least until measles has been eliminated in the European Region.

The ability to epidemiologically and virologically link measles cases with a source is critical for assessing the interruption of endemic transmission within and between countries in the European Region.

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