# Progress towards measles elimination in the Eastern Mediterranean Region: successes and challenges 

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In 1997, countries of the WHO Eastern Mediterranean Region (EMR) adopted measles elimination as a goal to be reached by 2010. To achieve this target, the WHO Regional Office for the Eastern Mediterranean developed a strategic plan with 4 strategies: conducting nationwide measles catchup vaccination campaigns targeting a wide age range; achieving greater than $95 \%$ vaccination coverage with 2 doses of measles-containing vaccine (MCV1 and MCV2) in all districts through routine immunization, supplemented by supplementary immunization activities (SIAs) where needed; conducting high quality, case-based surveillance supported by national proficient laboratories; and providing optimal clinical case management, including provision of vitamin A supplementation. Although significant progress was made towards measles elimination, the 2010 measles elimination target was not reached and the date was revised to 2015.

Countries of the EMR have been implementing the regional strategy for measles elimination with variable levels of success. In 2013, estimated MCV1 coverage within the 22 EMR countries was $95 \%$ or above in 11 countries, $90-94 \%$ in 2 countries and below $90 \%$ (range 46-85\%) in 9 countries (1). Of the 11 countries with over $95 \%$ MCV1 coverage, 5 reported more than $95 \%$ coverage in all districts. In the same year, among the 20 countries with a routine schedule of 2 or more doses,
reported MCV2 coverage was over 95\% in 11 countries, $90-94 \%$ in 1 country and below 90\% (range 40-82\%) in 8 countries. During 2000-2013, more than 437 million people were reached through 166 national or subnational SIAs for measles. Out of these SIAs, 76 (46\%) met the target of over 95\% administrative coverage (2).

With the support of a well-established global and regional laboratory network, measles case-based surveillance is implemented in all EMR countries, except Djibouti and Somalia. The measles surveillance performance indicators show that the majority of countries are meeting surveillance standards. However, some countries have not yet met all the targets of the surveillance indicators.

Substantial progress has been made since the EMR countries first resolved to eliminate measles. In 2013, 6 countries in the Region reported measles incidence of less than 1 case per million population and 3 of these countries have not reported any endemic measles cases for the last 2 to 3 years.

During the period 1998-2010, reported measles cases in the Region decreased by $77 \%$, from 89478 cases in 1998 to 10072 in 2010 (3). However, during 2011-2013, regional progress slowed, and the number of reported measles cases increased more than 2-fold to reach 20884 cases in 2013, with the occurrence of large outbreaks in several countries. Around $90 \%$ of the reported measles cases during the
period 2011-2013 were from 5 countries: Afghanistan, Pakistan, Somalia, Sudan and Yemen. With this resurgence of measles in some countries, the EMR's target of measles elimination by 2015 is not likely to be achieved.

Countries in the EMR face several challenges for achieving measles elimination. Routine MCV1 coverage remains suboptimal-only 50\% of the countries achieve the MCV1 coverage target (1) —and although 20 countries have introduced MCV2 into the routine schedule, only $55 \%$ of them have reported $95 \%$ or greater MCV2 coverage. Although numerous SIAs have been conducted, high coverage (over 95\%) has not been achieved in some countries. In addition, the accuracy of administrative data is questionable when there are several countries facing frequent measles outbreaks despite reporting high vaccination coverage.

Achieving the target of measles elimination is challenged by the current security situation in an increasing number of countries of the Region, leading to unpredictable mass population displacements and resettlements that complicate the delivery of routine vaccination services and planning of SIAs. Inadequate national commitment, insufficient visibility of the measles elimination target, limited managerial capacity and competing public health priorities in most of the countries are major challenges. Inadequate financial resources to implement the planned SIAs add to the challenges.

[^0]To prevent accumulation of susceptible persons and to proceed towards measles elimination, the key strategies outlined in the regional strategy for measles elimination should be implemented in all EMR countries. Routine MCV2 coverage should be improved and follow-up SIAs need to be conducted periodically until routine coverage of over $95 \%$ with both MCV1 and

MCV2 is achieved and maintained in every district. Efforts should focus on increasing routine MCV1 and MCV2 vaccination coverage and ensuring that routine immunization services and SIAs reach at-risk populations who reside in areas with poor access to vaccination services. Conducting SIAs in conflict settings and in areas with no local government requires close links with local
communities. In addition, coverage validation of all SIAs needs to be conducted to address coverage gaps in the SIAs and to ensure that appropriate planning for future SIAs is done. Monitoring and strengthening surveillance system performance could help rapidly identify and characterize outbreaks, guide response activities and provide evidence for refining measles elimination strategies.

## References

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