

Lot Quality Assurance Sampling

(MR)

(%) (% /) (% /)

(% /)
(% /)
(%)

%

lot

(/ / :%)% /
(% /)

(% /)
(% /)
MR

Lot Quality Assurance Sampling

:

()

.(% /)

:

(EPI)

(WHO)

)

.(

(Stein. et al.

. 2003)

/

%

.(Gaafar E. et al.2003) %

....

Mass Campaign

(Bino A. et al. 2003, Forrest J. et al. 1998, Pistol A. et al. 2003, Kambir C. et al. 2003, Nayunja M. et al. 2003, Quedros C. et al. 2003)

() ()

.(

%

(%) : (:

% / % / % /)

(% /) (% CI= : (

MR MR (% CI= % / -% /)% /

MR (% /)

(% /)

MR :

MR (% /)

(% /) (% /)

(% /)

MR

(% /)

(% /) MR

(% /) (% /)

(% /)

(% /)

MR

(%) (% /) :

(% /) (% /)

MR (% /) (% /)

: (

: % / % /)

% / % /) (% CI = % /

(%) (% CI = % /

%

MR

%

% /

%

%

(Over Estimation)

(WHO 1996)

% /

% /

MR

MR

MR

%

%

(outbreak)

.()

LQAS

.()

.()

.(Valades J. et al. 1995)

:

- -

	/				

Fisher exact test p=0.05

/

$\chi^2 = 0.21$ P=0.62	/				
	/				
$\chi^2 = 5.3$ P= 0.37	/				

/

Fisher exact test p-value =0.05	/				
	/				

$\chi^2 = 7.94$ P= 0.09

/

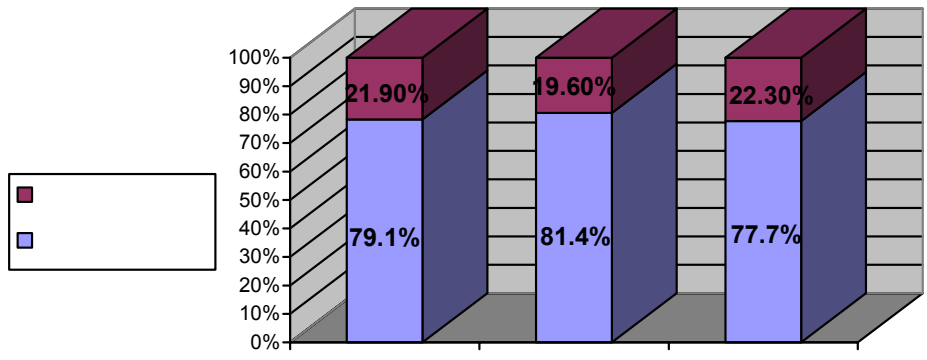
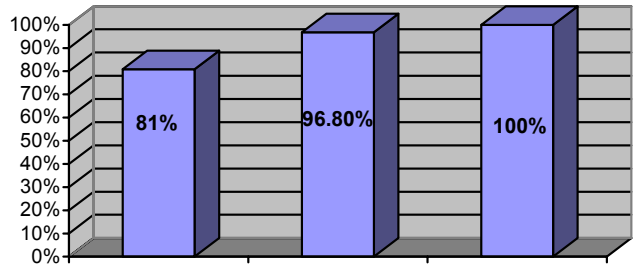
	/				
--	---	--	--	--	--

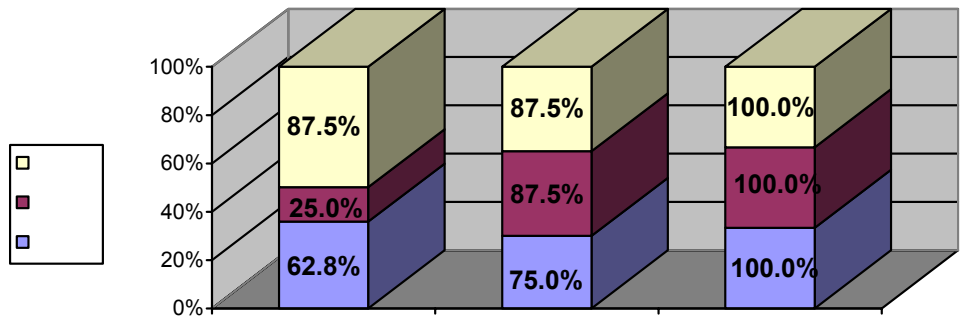
			$\chi^2_{=0.07}$ p=0.96	/			$\chi^2_{=1.15}$ p=0.56	/			
				/				/			
				/				/			
			Fisher exact test P- value= 0.50	/			$\chi^2_{=0.45}$ p=0.50	/			
				/				/			
			$\chi^2_{=-5.73}$ p=0.22	/			Fisher exact test p-value= 0.49	/			
				/				/			
				/				/			
				/				/			
			Fisher exact test P- value =0.49	/			$\chi^2_{=7.74}$ p=0.005	/			
				/				/			
			$\chi^2_{=8.25}$ p=0.01	/			$\chi^2_{=24.65}$ p=0.0001	/			
				/				/			
				/				/			

MR

-

		MR							
				/		/			
				/		/			
				/		/			
				/		/			





-

- Australia. Communicable Diseases Intelligence. **22** (3): 33-36.
- Kambir C., Kader Konde M., Yameogo A. and Tiendrebeogo S. (2003) Measles incidence before and after mass vaccination campaigns in Burkina Faso. *Journal of Infectious Diseases*, 187 Supplement 1:86-90.
- Nanyuja M., Lewis R., Makumbi I., Seruyange R., Kabwongera E., Mugenyi P. and Talisuna A. (2003) Impact of mass measles campaigns among children less than 5 years old in Uganda. *Journal of Infectious Diseases*. 187 Supplement 1: 63-68.
- Pistol A., Hennesey K., Pitigoi D., Ion-Nedelcu N., Walls L., Bellini W. and Strebel P. (2003) Progress toward measles elimination in Romania after a mass vaccination campaign and implementation of enhanced measles surveillance'. 2001, *Journal of Infectious Diseases*, 187, Supplement 1: 217-222.
- Quedros C., Izurieta H., Carrasco P. and Tambini G. (2003) Monitoring measles eradication in the region of the Americas: critical activities and tools. *The Journal of Infectious Diseases*. 187, Supplement 1: 102-110.
- Stein C., Birmingham M., Kurian M., Duclos P. and Strebel P. (2003) The global burden of measles in the year 2000. A model that uses country-specific indicators'. *Journal of Infectious Diseases*, Volume 187, Supplement 1: 8-14.
- Valades J., Weld L. and Varyas W.V. (1995). Monitoring community health workers performance through LQAS. *American Journal of Public Health*. **85**:1165-1166.
- World Health Organization (1996), Unpublished document WHO/VRD/96.015 available from Vaccines and Biological World Health Organization 2211 Geneva 27 Switzerland service using the lot quality technique: 10-31.
- Bino S. Kakarriqi E., Xibiniku M., Ion-Nedelcu N., Emiroglu N. and Uzicanin A. (2003) Mass immunization campaign in Albania, November 2000. *Journal of Infectious Diseases*, 187 Supplement 1:223-229.
- Gaafar E., Moshni G. and Lievano F. (2003) The challenge of achieving measles elimination in the Eastern Mediterranean Region by 2010. *Journal of Infectious Diseases*, 187, Supplement 1: 246-251.
- Forrest J., Burgess M., Heath T. and McIntyre P. (1998) Measles control in

**ASSESSMENT OF THE MASS CAMPAIGN FOR MEASLES –
RUBELLA COMPLEMENTARY IMMUNIZATION PROGRAM
WITHIN THE POPULATION COVERED BY
TEHRAN UNIVERSITY OF MEDICAL SCIENCES**

**Moradi A.¹, MSPH; Majdzadeh¹, R., PhD; Zeraati H.¹, MSPH; Zamani G.¹, PhD;
Zonoobi V.², MD; Sepanlou S.G.¹, MD; Sangi M.², MD**

Abstract:

Considering the importance of the mass campaign for measles-rubella vaccination in the elimination of measles and Congenital Rubella Syndrome, and also the necessity of the accurate quantitative and qualitative assessment of the process of this program and the estimation of the information coverage regarding the passive launch of the program, this assessment has been carried out within the population covered by Tehran University of Medical Sciences using a standard method.

This study is descriptive- analytical. The necessary sample size was defined as 390 people for the estimation of the immunization coverage, 190 people in each step of the information coverage (and a total of 570 people for the overall three steps), and finally 24 executive teams for the assessment of the quality of the service. Lot Quality Assurance Sampling and subsequent analysis were used for the assessment of service quality, with the upper threshold set at 80% and the lower threshold at 30%. Each lot was defined acceptable or unacceptable based on the quality of the vaccination, the cold chain, the competence of the human resource, and the availability of the necessary materials and equipment. Data analysis was done using the Chi Square and Fisher's exact tests.

96.4% (95% CI: between 94.6% and 98.2%) of the people between 5 and 25 years old had received the MR vaccine. 7 people (1.8%) of the vaccinated people were not in the target group of vaccination. From the total 190 people who were studied on the basis of information coverage, 152 people (80.9%), 184 people (96.8%) and 190 people (100%) were informed about the mass campaign for MR vaccination in the first, second, and the third steps respectively. More than 80% of the people were informed about the program through TV. The quality of the vaccination was acceptable in 19 executive teams (79.1%) and unacceptable in the other 5 executive teams (20.9%). In this study, the quality of the cold chain was acceptable in 23 executive teams (95.8%) and unacceptable in one team (4.2%). The competence of the human resource, the necessary materials and equipment for MR vaccination was acceptable in all 24 executive teams under study (100%).

The enforcement of the mass campaign in such short period of time compared to similar programs in other countries demonstrated the success of the collaborators in the execution of this program. Overall it seems that regarding the quality of vaccination, information coverage, and the provision of materials and equipment in health centers of the districts, the program has achieved its goals.

Keywords: *measles, vaccination, mass campaign, Lot Quality Assurance Sampling*

(Author to whom all correspondence Should be addressed).

1 . Department of Epidemiology and Biostatistics, School of Public Health and Institute of Public Health Research, Tehran University of Medical Sciences

2 . Deputy of Health Affairs, Tehran University of Medical Sciences

