

Impact of training on Disease Surveillance and Notification Officers in Nigeria

Olawunmi Adeoye¹, Abimbola Aman-Oniyo², Clement Nwaeke³, Angela Mbata⁴ and Abiola Oduneye²

¹Nigeria Field Epidemiology and Laboratory Training Programme (NFELTP), Asokoro, Abuja, Nigeria; ²Lagos State Ministry of Health, Ikeja, Lagos, Nigeria; ³World Health Organisation, Ikoyi, Lagos, Nigeria; ⁴Central Public Health Laboratory, Yaba, Lagos, Nigeria

Objective

To evaluate the immediate impact of training on Integrated Disease Surveillance and Response (IDSR) on the knowledge of Disease Surveillance and Notification Officers (DSNOs) and the demographic characteristics associated with the change in knowledge.

Introduction

Public health surveillance (also called field epidemiology) as defined by Centres for Disease Control and Prevention (CDC) is the ongoing systematic, collection, analysis and interpretation of outcome-specific data essential to the planning, implementation and evaluation of public health practises closely integrated with the timely dissemination of these data to those who need to know (1). The IDSR is a strategy of the WHO Afro region adopted by the member states in 1998 as a regional strategy for strengthening weak national surveillance systems in the African region (2, 3). The DSNOs under the supervision of the Medical Officers of Health (MOHs) are responsible for surveillance activities within their Local Government catchment area. Therefore, their role is very crucial to the success of the IDSR strategy.

Methods

The study was conducted in Lagos State, South Western Nigeria, in June 2011. A quasi experimental, before and after study was done. Participants were DSNOs and assistant DSNOs of the 20 Local Governments in Lagos State. Training materials were received from the Lagos State Ministry of Health, World Health Organisation (WHO) and the Central Public Health Laboratory, Lagos. Pre- and posttests were conducted using questions developed for the purpose. Participants scores were categorised as fail (<50%) and pass (50% and above). The impact of the training was assessed by statistical evaluation of the pre- and posttests results.

Results

Participants were 25 DSNOs and assistant DSNOs including 11 (44%) males and 14 (56%) females. Their mean age was 39.7 years (SD, 7.8 years) with ages ranging from 25 to 57 years.

Table 1. Results of IDSR training.

Respondents' performance	Pretest	Posttest	Test statistics and p
Mean (SD) scores (%)	34.0 (2.1)	56.3 (2.3)	Paired <i>t</i> test = 10.71 <i>p</i> = 0.000
Median (%)	33.0	57.0	
Range (%)	19–56	32–80	
	<i>Posttest (pass)</i>	<i>Posttest (fail)</i>	<i>Total</i>
Pretest (pass)	2 (8%)	0 (0%)	2 (8%)
Pretest(fail)	16 (64%)	7 (28%)	23 (92%)
Total	18 (72%)	7 (28%)	25 (100%)

Paired *t* test = 10.71; *p* = 0.000.

McNemar χ^2 = 15.02; *p* = 0.000.

They had been employed for an average of 3.6 years (SD, 2.4 years). Most (88%) of the participants were married. Only about a third has had relevant working experience prior to this job. The mean pretest score was 34.0% (SD, 2.1), which increased to 56.3% (SD, 2.3) at posttest. The mean paired difference in score between post- and pretest of 22.3% (SD, 10.4) was statistically significant *p* = 0.000. There was also a statistically significant difference between the proportion of participants who passed the posttest but failed the pretest [16 (69.6%)] and the proportion who passed the pretest but failed the posttest [0 (0%)]; *p* = 0.000. The mean score of male participants was higher at the pretest (35.6% vs. 32.0%) while the females performed better at the posttest (57.3% vs. 55.6%), although this difference was not statistically significant. The ages of participants and the number of years of employment were also not statistically associated with their performance in the pre- and posttests.

Conclusions

The training achieved its immediate objective on the knowledge of DSNOs as evidenced by the pre- and posttests results.

Keywords

Surveillance; integrated disease surveillance and response; Disease Surveillance and Notification Officers

References

- Gregg MB. Field epidemiology. 3rd ed. Oxford University Press, New York; 2008. p. 38–62.
- Federal Ministry of Health of Nigeria, Epidemiology Division. National Technical Guidelines for Integrated Disease Surveillance and Response. December 2009.
- Federal Ministry of Health, Abuja, Nigeria. National Policy on Integrated Disease Surveillance and Response. September 2005.

*Olawunmi Adeoye

E-mail: wunmiolat@yahoo.com