FACTORS RELATED TO QUALITY OF EPIDEMIOLOGIC SURVEILLANCE DATA (REPORT FORM 506) FROM HEALTH CENTERS IN MUANG DISTRICT, NAKHONSITHAMMARAT PROVINCE, THAILAND

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SAROTE TEERAKUL: FACTORS RELATED TO QUALITY OF EPIDEMIOLOGIC SURVEILLANCE DATA (REPORT FORM 506) FROM HEALTH CENTERS IN MUANG DISTRICT, NAKHONSITHAMMARAT PROVINCE, THAILAND. THESIS ADVISOR: ROBERT SEDGWICK CHAPMAN, M.D., M.P.H, 121 pp.

This analytical study was intended to evaluate the quality of epidemiologic surveillance forms (Form 506) received by the Muang District Health Office, Naknonsithammarat Province, from 25 health centers in 13 subdistricts during 2004. Reports received were compared to health center data with respect to completeness, accuracy, promptness, and overall data quality. During 2004, a total of 831 report forms were received at the District. A total of 1,298 cases of reportable illness was found at the health centers. Health center personnel responsible for completing the report forms 506 were also interviewed, using a standardized questionnaire. In data analysis, each type of dependent variable (completeness, accuracy, promptness, and overall data quality) was analyzed against each type of independent variable (patient characteristics, type of illness, health center characteristics, location of health center, and calendar time). Dependent variables were analyzed as both continuous and categorical data, using appropriate statistical tests.

Overall rates of completeness, accuracy, promptness, and acceptable quality were, respectively, 60.6% (786/1,298), 39.4% (327/831), 64.4% (535/831), and 62.7% Completeness and accuracy were inversely and statistically significantly associated with patient's age ($p<0.001$). Experience with completing the report forms 506 was positively associated with completeness ($p<0.001$) and overall quality ($p=0.001$). Submission of forms by diskette was associated with significantly better completeness ($p=0.003$) and overall quality ($p=0.007$) than was submission as hard copy. A similar pattern was observed for receipt of support/feedback in performing job responsibilities, and for receiving supervision in epidemiology related activities. There were highly significant differences among subdistricts in completeness ($p<0.001$), accuracy ($p<0.001$) and promptness ($p<0.001$) of report forms. Accuracy and promptness also differed significantly by calendar month ($p\leq0.004$).

Based on study results, the main recommendations include: (1) quality should be improved, as should health workers' attitudes and understanding of the importance of epidemiologic surveillance; (2) encourage computerized data entry and report submission; (3) the health system should try to keep experienced personnel; (4) strengthen support/feedback and supervision in epidemiology; (5) educate health workers that surveillance is important for all age groups.

Field of study Health Systems Development Student's signature Sarote Teerakul

Academic year...2006..... Advisor's signature Robert S. Chapman

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Sarote Teerakul

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