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Evaluation of timeliness notification of communicable diseases after the workshops for primary care physicians

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Introduction

- ⌘ Communicable disease surveillance system provides essential data for planning, implementation and evaluation of public health practice.
- ⌘ **Aim of the public health surveillance:**
 - ⌘ to assess the health status of a population
 - ⌘ to establish public health priorities
 - ⌘ to reduce the burden of disease in a population by effective disease prevention and control programs.
- ⌘ Because of key role of public health surveillance, it should be regularly evaluated in terms of quality and time response, especially.

Communicable disease surveillance

- ⌘ Timeliness- a key surveillance system standards.
 - ⌘ It reflects time interval between two steps in system
- ⌘ Primary care physicians- the most important role in the whole process of surveillance system
- ⌘ Dedication of primary care physicians to disease notification is a crucial for the quality of surveillance and public health program effectiveness

Aim

- ⌘ During the December 2015 in Nitra county, we organized the workshops for primary care physicians and nurses
- ⌘ **Main aim:**
 - ⌘ to increase number of primary care physicians conducting disease reporting
 - ⌘ to improve timeliness notification.

Methods

- ⌘ We followed retrospectively (3 months before and 3 months after the workshops in Nitra county)
 - ⌘ number of physicians conducting notification
 - ⌘ communicable disease timeliness for selected diagnosis
 - ⌘ reported by primary care physicians who participate the workshops.
 - ⌘ comparison of medians of timeliness by Wilcox test
 - ⌘ averages of timeliness by t.test before and after training
 - ⌘ using R project with level of significance $p < 0.05$.

Results

⌘ In Nitra county:

⌘ 704 primary care physicians who are required to conduct the disease notification.

⌘ 27% (193) participated in the workshops.

⌘ 171 physicians reported before workshop (24%)

⌘ 177 physicians reported after workshop (25%)

Results- campylobacteriosis timeliness notification

Campylobacteriosis (A04.5)	Before workshop	After workshop	P-value
Number of cases	275	212	
Timeliness- median	3	0	<0.05
Timeliness- average	2.28	0.27	<0.05
Reported in accordance with time interval- 24 hours	117 (43%)	106 (50%)	

Results- varicella timeliness notification

Varicella (B01.9)	Before workshop	After workshop	P-value
Number of cases	296	953	
Timeliness- median	1	1	NS
Timeliness- average	1.33	1.18	NS
Reported in accordance with time interval- 48 hours	231 (78%)	787 (82%)	

Results- scabies timeliness notification

Scabies (B86)	Before workshop	After workshop	P-value
Number of cases	86	63	
Timeliness- median	3	3	NS
Timeliness- average	3.27	3.17	NS
Reported in accordance with time interval	36 (42%)	31 (49%)	

Results- chlamydia infection timeliness notification

Chlamydia infection (A56)	Before workshop	After workshop	P-value
Number of cases	30	25	
Timeliness- median	2	0	NS
Timeliness- average	2.04	1.40	NS

Understanding of surveillance system importance by physicians

Surveillance system is useless	98%
Surveillance system is useful for public health	2%
Notification of possible cases is not necessary	51%
Notification of possible cases is necessary	49%
Notification of all diagnosis	77%
Notification only clinical serious diagnosis	23%

Reasons of physicians for non-reporting

	% (n)	Median of score *
time burden	88% (69)	6
technical reason	54% (42)	5
not sure list of mandatory diseases	47% (37)	3
not sure how to report cases without laboratory confirmation	31% (24)	3
notification is burden without real effectiveness	24% (19)	2
respect the privacy of patients	10% (8)	1

Conclusion

⌘ Results of intervention lecture:

- ⌘ Not significant increase in number of physicians conducting disease reporting
- ⌘ Statistically lower median of timeliness of campylobacteriosis cases
- ⌘ Because of surveillance system key role to public health, periodical evaluation and intervention activities should be done.

Thank you for your attention!