

Title: Epidemiological training need assessment for a national preventive medicine curriculum

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Context and setting: Vietnam is facing numerous health threats - HIV/AIDS, acute diarrhea, SARS, H5N1 and H1N1 with a shortage of preventive medicine staff (PMS). Only 15% PMS were trained in this specialty while the need for PMS by 2010 is estimated at 320 and 1,400 at national and provincial levels, respectively. Thus, training PMS is top priority. Unfortunately, the long existing Preventive Medicine Curriculum (PMC) in medical universities cannot train enough PMS to be able to deal with health threats in the current global context.

Why change is necessary: Developing a national updated and practical PMC among 8 Vietnamese medical universities will help Vietnam deal with the above issue. A training needs assessment (TNA) is a crucial first step in this process for clarifying the activities and skills needed, and for identifying competencies to be taught to PMS.

What was done: Three rounds of TNA, using Delphi-techniques, focus group discussion (FGD) and in depth interview (IDI) among PMS, faculty members (FM), communities and other stakeholders were used in the first round to identify activities and skills needed at different levels of a preventive system. The second round, with intra-workshop and inter-workshop among key preventive and public health informants, clarified overlapping and inconsistent activities and skills identified in round one and grouped them into 15 competencies under 4 main headings. The third round surveyed 426 PMS to rank competencies into characteristics (frequency of use, importance and self-confidence) and 220 FM to rank competencies into characteristics (the need of competencies, required fluency level and self-confidence of teaching).

Results: There are different points of view among different stakeholders. Of 15 competencies grouped within the topic of epidemiology, the ranking of needs by FM and that by PMS differed. Only 4 were ranked similarly by the two groups while 4 competencies were ranked one level higher or lower. Seven of the 15 competencies were ranked significantly higher by PMS than by FM ($p < 0.05$). Comparing frequency of use ranked by PMS and the required skillfulness ranked by FM, 6 of the 15 competencies were ranked inversely. Except for the skill of control vector, these 6 competencies are also ranked differently when comparing self-confidence ranking by PMS with the required skillfulness ranked by FM. Although FM seem more aware of the needs of these 15 competencies than PMS, they are less self-confident using these competencies. $25.84\% \pm 4.86\%$ of FM felt self-confident with 15 competencies versus $61.72\% \pm 9.82\%$ of PMS. Noticeably, an average of 27% PMS felt less confident in practicing the top 5 frequently used competencies.

Evaluation of the results: Utilizing the Delphi technique with different stakeholders is helpful in identifying consistent topics and their competencies. Competencies ranked differently between faculties and PMS should be considered in content and time

allocation. Competencies that PMS frequently use but lack self-confidence in should be prioritized for curriculum planning. Perception of competencies by FM, but not shared by PMS, should receive appropriate curricular allocation. Training 15 competencies to FM in a training-of-trainee manner is necessary for their preparation to teach preventive medicine students.