



## Quality in Public Health Medicine

Quality improvement activities in health care systems focus on patient care in hospitals and ambulatory care settings. Some process quality indicators in such settings, particularly in primary care, reflect the extent to which prevention of disease and promotion of health is practiced. However, in public health medicine, the specialty that focuses on disease prevention, health promotion, and health care deployment at population level, published evidence of such activities is limited (1,2).

Similarly to other areas of medicine, quality improvement activities in public health can be conducted by external and internal quality reviews. Internal reviews address criteria and standards of professional practice and are undertaken by health care professionals within the setting in which they work. External reviews focus on organizational and safety criteria and standards and are usually carried out by a body outside the institution under assessment. Some efforts were made in public health to review process issues (3), training (4), and developing outcome measures (5), but no framework has been suggested for a comprehensive review of professional activities and no structured organizational review of public health has taken place in Europe.

External quality review of public health is well developed in the US, and usually linked to accreditation. County public health workers have developed Assessment Protocol for Excellence in Public Health (APEXPH), which covers organizational capacity (6). Indicators that are included focus on authority to operate, community assessment, policy development, and major administrative areas. They are set out in a way that enables individual departments to assess their performance against standards and thus evaluate and improve their own organization (6). In the UK and other European countries, the concept is still in its infancy; organizational accreditation programs have been developing a national approach to setting and monitoring organizational standards, initially in hospitals and now also in primary care, but not in public health (7). An external review of public health activities conducted in a region in England identified organizational factors that contributed to efficient, high-quality work of district departments of public health. The factors considered very important, or "vital", in providing an efficient service were then used to compare the actual performance of the region's 12 district departments. These organizational factors covered various categories, such as philosophy and objectives, management and staffing, staff development, policies and procedures, facilities and equipment,

population care, evaluation and quality assurance. The review provided valuable experience for planning future public health audit activity (8).

Internal quality reviews in public health medicine, ie, those that monitor professional standards, are very rare both in North America and on other continents. Their aim would be to contribute to the improvement of health of populations by specifically examining and improving the quality of work of physicians, specialists in public health medicine (9). Such reviews are difficult to perform mainly because outcomes are usually long-term and involve several medical and non-medical agents. Also, others carry out activities such as cervical cytological screening or immunizations. Consequently, inherent difficulties exist and therefore new indicators are required to assess and subsequently improve the quality through structure, process, and outcome approaches. In Scotland, a model has been suggested for developing measurable structure, process, and outcome indicators for quality improvement in public health medicine. The model used a matrix in which the Y axis describes roles and responsibilities of public health medicine, and the X axis the various services provided by a health authority to which the roles and responsibilities may be applied (10). Indicators of quality in the form of questionnaires for the seven selected service categories of roles of public health medicine were developed for each of the following topics:

- 1) assessment of health and health care needs in information services;
- 2) input into managerial decision making in health promotion;
- 3) fostering multisectorial collaboration in environmental health services;
- 4) health service research and evaluation for child services;
- 5) lead responsibility for the development and/or running of screening services; and
- 6) public health medicine training and staff development in communicable diseases.

Subsequently, a quality-rating index for each topic was developed on the basis of the questionnaire scores. The model developed provides an effective, flexible, and comprehensive framework through which generalizable, quantifiable, and routinely measurable indicators can be developed. Subsequent quality ratings with the same indicators provide a means of measuring the effects of changes on the quality of practice, enabling quality improvement activities in public health medicine (10).

Public health medicine specialists analyze the determinants of health and disease within populations and apply their knowledge to improve health of populations. Thus, they also evaluate the quality and effectiveness of health services for populations and groups of patients. Public health doctors must also be active in improving the quality of their own work. The specialty needs to be audited and mechanisms should be introduced to ensure continuous improvement (9). Institutes and departments of public health wishing to assess and improve the quality of their activity, both regarding professional and organizational aspects, can learn much from the two audits conducted in Great Britain and from the APEXPH of the US, and adapt methodologies and suggestions of the three endeavors to their specific circumstances.

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### References

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