Partnering health service managers to create software that makes a difference: support for HIV and TB programme management at district and facility level

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Abstract and objectives

IN 2002 WHO [1] published a policy framework calling for close collaboration between HIV and TB programme structures and the integration of services in high prevalence settings such as South Africa. In response to this call a task team was established in Cape Town consisting of health service managers and facilitated by an academic institution (University of Western Cape) to develop an evaluation tool to promote integrated HIV/TB services and improve the quality of each programme component. Initially information was managed in Microsoft Excel but this proved to be inefficient, resulting in a need for a purpose-built software tool. Our objectives in this process were to incorporate the expressed information needs of our health service partners, to capture, warehouse and analyse the audit data and to produce automated and customisable reports. The end product was developed using Microsoft Access and Delphi and allows for rapid processing of audit data into useful information. It is generic allowing for widespread application and is compatible with existing health information systems.

Keywords:

HIV and TB programme evaluation, District health information management support, Access database

Methods

We collaborated with health service mangers at district level who provided detailed insight into the functionality and information needs of managers working in HIV and TB programmes in a developing country context. End-user friendliness, flexibility and easy integration into existing information systems acted as parameters for the development environment. The warehouse contains the reference parameters for the data elements (audit questions) which are constructed further into indicators which are then presented in graphs and tables.

Results

The end product is a scalable and generic software tool which is compatible with the health information system currently used in South Africa (and many other developing countries) for routine health data. The software allows a designated master user control over the creation of data variables, indicators and reports. Thus managers are able to rapidly adapt the survey inputs and outputs. Programme information can be organised under specific services (e.g. HIV testing or antiretroviral care) and according to key efficiency and effectiveness criteria. The capacity to red-flag data of specific interest to the user prevents high priority information being overlooked. Data entry is aided by validation rules to reduce the likelihood of user error. The software has been successfully piloted and will be used throughout Cape Town Metro Health District in June 2010.

Conclusion

The software empowers health managers by organising and presenting information of high value to the decision-making process with minimal effort. It has improved data warehousing capacity allowing for large cross-sectional and longitudinal data analysis. At the facility level inputs and related processes are relevant as are inequalities in coverage and use of services. A subset of information can be reported at higher levels for strategic monitoring and decision-making [2].

References

[1] Strategic Framework to decrease the burden of HIV/TB, World Health Organisation, 2001

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