

## Performance assessment questionnaire regarding TB control for use in primary health care clinics in Brazil<sup>\*</sup>, <sup>\*\*</sup>

Questionário para avaliação de desempenho de serviços de atenção básica no controle da TB no Brasil

Tereza Cristina Scatena Villa, Antônio Ruffino-Netto

### Abstract

The objective of this study was to provide access to and disseminate a questionnaire used as an instrument to assess the organizational elements and the performance of primary health care clinics regarding TB control in Brazil, comparing selected organizational dimensions by health care clinic, by municipality and by actor (patients, health care workers and managers). The results show that municipalities where the coverage of supervised treatment was more extensive presented more favorable indicators regarding access to TB treatment. The organizational format of the health care clinics involved in TB treatment—family health programs and referral centers with specialized teams in TB control programs (TCPs)—was not a factor that expanded access to diagnosis. The TCPs involving a smaller number of patients presented better performance regarding the health care professional-patient relationship. The majority of the patients faced economic and social difficulties, and most managers were unaware of the amount of resources allocated to TB control activities. The instrument proved to be viable and to have the potential to adequately assess the performance of health care clinics in the urban areas studied.

**Keywords:** Questionnaires; Patient satisfaction; Primary health care; Family health program; Tuberculosis.

### Resumo

O objetivo do estudo foi divulgar e disponibilizar um questionário utilizado como instrumento de avaliação dos elementos organizacionais e de desempenho dos serviços de atenção básica no controle da TB no Brasil, comparando as dimensões organizacionais selecionadas por unidade de saúde, por município e pelos diferentes atores (doentes, profissionais de saúde e gestores). Os resultados mostraram que os municípios com maior cobertura de tratamento supervisionado apresentaram indicadores mais favoráveis para o acesso ao tratamento da TB. A forma de organização da atenção a TB—programas de saúde da família ou unidades de referência com programas de controle da TB (PCT)—não foi um fator que ampliou o acesso ao diagnóstico. Os PCT que atendiam um menor número de doentes apresentaram desempenho mais favorável no que se refere ao vínculo entre o doente e o profissional de saúde. A maioria dos doentes enfrentava dificuldades de ordem econômica e social, e grande parte dos gerentes desconheciam os recursos aplicados nas ações de TB. O instrumento apresentou viabilidade de aplicação e potencial de avaliação dos serviços de saúde nos centros urbanos do estudo.

**Descritores:** Questionários; Satisfação do paciente; Atenção primária à saúde; Programa saúde da família; Tuberculose.

The present article aims at disseminating and providing access to a questionnaire used as an instrument for assessing the organizational and performance elements of primary health care (PHC) clinics in relation to their role in controlling TB in Brazil. This instrument is adapted from the Primary

Care Assessment Tool, developed by Starfield<sup>(1)</sup> and validated for use in Portuguese in Brazil<sup>(2)</sup> for the assessment of PHC clinics. Authorization to create an adapted version (based on the original and the translation) was requested from and granted by the authors of the instruments.

<sup>\*</sup> Study carried out at the Riberão Preto School of Nursing, University of São Paulo at Riberão Preto, Riberão Preto, Brazil.

Correspondence to: Tereza Cristina Scatena Villa. Escola de Enfermagem de Riberão Preto da Universidade de São Paulo, Avenida Bandeirantes, 3900, sala 55, Campus Universitário, CEP 14040-902, Riberão Preto, SP, Brasil.

Tel 55 16 3602-3407 or 55 16 3602-2905. E-mail: tite@eerp.usp.br

Financial Support: This study received financial support from the Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq, National Council for Scientific and Technological Development; Process 410547/2006-9), and from the Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP, Foundation for the Support of Research in the State of São Paulo)/Programa de Pesquisa para o Sistema Único de Saúde (PPSUS, Unified Health Care System Research Program; Process 6/61489-3).

Submitted: 12 August 2008. Accepted, after review: 21 October 2008.

<sup>\*\*</sup> Editor's note: The questionnaires are available on the Brazilian Journal of Pulmonology website (<http://www.jornaldepneumologia.com.br/>).

We have developed three separate versions of the instrument\*:

- A questionnaire to be applied to TB patients over 18 years of age and residing in the city studied, patients within the prison system being excluded (Appendix I)
- A questionnaire to be applied to health professionals who work directly with TB control activities in PHC clinics (Appendix II)—basic health care clinics and via the Family Health Program (FHP)—as well as to the specialized teams of the Tuberculosis Control Program (TCP) referral centers.
- A questionnaire to be applied to the managers of the municipal department of health (Appendix III)

Each questionnaire contains 108 specific questions for assessing the performance of the health care clinics in the treatment of TB patients. It includes questions referring to the dimensions of PHC: point of entry; access (subdivided into access to diagnosis and access to treatment); the health care professional-patient relationship; services offered; coordination; focus on the family; and community outreach. Each of those dimensions is related to a group of activities in the clinical practice, public health or implementation of TB control policies in the city.

These questionnaires were created as part of a multicenter project,<sup>(3)</sup> which involved cities in two regions of Brazil.\* In the southeast region, three cities were studied: two (Ribeirão Preto and São José do Rio Preto) are in the state of São Paulo; and one (Itaborai) is in the state of Rio de Janeiro. In the northeast region, two cities were studied: Campina Grande (in the state of Paraíba) and Feira de Santana (in the state of Bahia). The aforementioned project was approved by the Ethics Committee of the Ribeirão Preto School of Nursing, located in the city of Ribeirão Preto.

A pre-test of the instrument was carried out with each of the actors participating in

the study. The test must be applied through individual interview, and its application takes approximately 40 min. The interviewers were trained and were given a manual with a glossary in order to guide the application of the questionnaire.

The assessment of the performance of the PHC clinics in TB control was carried out based on the creation of markers that correspond to the mean value obtained by the sum of all answers of all the interviewed patients for each question and divided by the total number of interviewees. The markers were individually analyzed, compared by health care clinic, by city and by the category of actor.

The tested hypotheses presented similarity (or non-similarity) among the markers of the health care clinics, cities and different actors (patients, health care workers and managers) using parametric and non-parametric ANOVA. The reliability of the markers was analyzed using Cronbach's alpha coefficient. To evaluate the associations and similarities among the markers, as well as to correlate those associations and similarities with the categorical variables of the questionnaire, we used multiple correspondence analysis.

The results show that the cities with greater coverage of supervised treatment present more favorable markers to TB treatment access; the organization of TB treatment (FHP or TCP referral center) was not a factor that broadened access to diagnosis. Most TB diagnoses were made at secondary or tertiary treatment facilities (emergency rooms), and health care clinics at which the TCP serves a smaller number of patients presented more favorable performance in terms of the health care professional-patient relationship. Most patients faced socioeconomic difficulties in gaining access to diagnosis and treatment, therefore requiring incentives and benefits. Most managers were unaware of the nature and amount of resources allocated to TB activities.

The methodology was able to assess the performance of the health care clinics (FHP clinics and TCP referral centers) and to compare the perception of the different actors who participated in the process of TB control in the urban centers studied. The instrument presented application viability and potential for assessing health care clinics.

\* *Grupo de Estudos Epidemiológicos Operacionais em Tuberculose* (GEOTB, Operational Epidemiology Tuberculosis Study Group), supported by the *Conselho Nacional de Desenvolvimento Científico e Tecnológico* (CNPq, National Council for Scientific and Technological Development), <http://www.eerp.usp.br/GEOTB/>

## References

1. Starfield B. Atenção primária: equilíbrio entre necessidades de saúde, serviços e tecnologia. Brasília: UNESCO, Ministério da Saúde; 2002.
2. Macinko J, Almeida C, Oliveira E. Avaliação das características organizacionais dos serviços de atenção básica em Petrópolis: teste de uma metodologia. Saúde em Debate. 2003;27(65): 243-56.
3. Villa TCS, Ruffino-Netto A. (Escola de Enfermagem de Ribeirão Preto da Universidade de São Paulo, Ribeirão Preto, Brasil). Avaliação das dimensões organizacionais e de desempenho dos serviços de atenção básica no controle da tuberculose em diferentes regiões do Brasil. Ribeirão Preto: EERP-USP; 2007. Contract No. 410547/2006-9. Sponsored by CNPq.

## *About the authors*

---

### *Tereza Cristina Scatena Villa*

Full Professor. Ribeirão Preto School of Nursing, University of São Paulo at Ribeirão Preto, Ribeirão Preto, Brazil.

### *Antônio Ruffino-Netto*

Full Professor. Ribeirão Preto School of Medicine, University of São Paulo at Ribeirão Preto, Ribeirão Preto, Brazil.