962-92-1415 **Zhilan Feng** (zfeng@math.purdue.edu), Department of Mathematics, Purdue University, West Lafayette, IN 47907-1395, **Mimmo Iannelli** (iannelli@science.unitn.it), Dipartimento di Matematica, Universita degli Studi di Trento 38050 Povo (TN), Italy, and **Fabio A Milner*** (milner@math.purdue.edu), Department of Mathematics, Purdue University, West Lafayette, IN 47907-1395. *A Control Problem in Tuberculosis.* Preliminary report.

A model for tuberculosis with descreening is described and analyzed. The population is divided into the classes of susceptibles, infected (but with latent TB), and infectious individuals. The dynamics of the system is described by ordinary differential equations for the first and last classes, and by a partial differential equation (with age of infection as a structure variable) for the second epidemic class. A control problem is introduced by treatment of screened individuals who are infected. Some theoretical results are demonstrated and results from simulations are presented. (Received October 04, 2000)