COST-EFFECTIVENESS ANALYSIS OF RESIDENCY TRAINING IN FAMILY MEDICINE TO PROMOTE ACCESS TO HEALTH CARE (in progress)

Authors: (1) Adelson Guaraci Jantsch, Brazil, State University of Rio de Janeiro; (2) Antônio Carlos Ponce de León, Brazil, Professor of Statistics and Epidemiology at State University of Rio de Janeiro.

CONTEXT - From 2008 until 2016 Rio de Janeiro promoted a comprehensive Reform of its Primary Health Care (PHC) system, increasing the coverage of the Family Health Strategy from only 3.5% to 70%. As part of these structural changes, the Health Department invested financial resources to support vocational training in Family Medicine (FM) as a strategy to workforce development and a way to improve the quality of care delivered. OBJECTIVE - To show the effect of a two years residency training in FM on the access of patients to being diagnosed with the 27 most prevalent chronic conditions in primary care. HUMAN SUBJECTS REVIEW – project approved by the Institutional Review Board of the Health Department of Rio de Janeiro under the number 03795118.0.0000.5279 in February 1st, 2019. DESIGN - A longitudinal retrospective analysis of adult patients from January 2013 to December 2018. SETTING – information from electronic medical records of 550.000 patients from the PC clinics in Rio de Janeiro comparing those treated by trained Family Physicians (FP) to those treated by physicians with no training in FM (generalists) as the main exposure. The Incidence rate ratios for being diagnosed with one of the 27 chronic conditions were estimated using a Poisson regression model adjusted for age, sex and previous morbidities. The cost for every consultation was estimated by the total salary of the physician (US$ 4.270 for FP and US$ 3.600 for Generalists) divided by the number of consultations in the same period. Those values and the IRR were used to calculate the Incremental Cost-effectiveness Rate used to estimate the cost for every new condition. ANTECIPATED RESULTS - Patients with hypertension, dyslipidemia and T2DM present a slightly higher risk of being diagnosed by Generalists. Patients with psychosis and schizophrenia, alcohol abuse, illicit drug abuse, depression, ischemic heart disease, chronic heart failure, arrythmias, dementia, COPD, cancer, kidney failure, AIDS/HIV and liver disease have a higher risk of being diagnosed by Family Physicians. The costs for every new diagnosis are still being calculated. CONCLUSIONS - Vocational training in FM is effective to promote a more comprehensive access to health care, broadening the scope of diagnosed and treated conditions in PHC beyond the Brazilian Family Health Strategy's selective list of priorities (Hypertension and Diabetes).

Selective conditions listed in the basket of health priorities (Hypertension, Diabetes and Dyslipidemia) of the Brazilian Family Health Strategy are commonly diagnosed by Generalists but more complex and difficult to treat health conditions keep being underdiagnosed by Generalists and therefore, having their access to health treatment impaired or delayed.

From 2008 until 2016 Rio de Janeiro promoted a comprehensive Primary Health Care reform, increasing the coverage of the Family Health Strategy and investing financial resources to support vocational training in Family Medicine (FM) as a strategy to workforce development and a way to improve the quality of care delivered.

To show the effect of a two years residency training in FM on the access of patients to diagnose and continuous care to the 27 most prevalent chronic conditions seen in primary care.

A longitudinal retrospective analysis using information from electronic medical records of 550.000 patients treated in the PC clinics in Rio de Janeiro from 2013 to 2018. Adult patients treated by trained Family Physicians (FP) were compared to those treated by physicians with no training in FM (generalists) and the Incidence rate ratios for being diagnosed with one of the 27 chronic conditions were estimated using a Poisson regression model adjusted for age, sex and previous morbidities. The cost for every consultation was estimated by the total salary of the physician (US$ 4.270 for FP and US$ 3.600 for Generalists) divided by the number of consultations a physician provided during the same period. Those values and the IRR were used to calculate the Incremental Cost-effectiveness Rate used to estimate the cost for every new condition.

Patients with hypertension, dyslipidemia and T2DM present a slightly higher risk of being diagnosed by Generalists while patients with psychosis and schizophrenia, alcohol abuse, illicit drug abuse, depression, ischemic heart disease, chronic heart failure, arrhythmias, dementia, COPD, cancer, kidney failure, AIDS/HIV and liver disease were more likely of being diagnosed by Family Physicians.

Vocational training in FM is effective to promote more comprehensive access to health care for their patients, broadening the scope of diagnosed and treated conditions in PHC.

Financial investments in human resources training

Low and middle-income countries

primary care workforce