questions regarding skills and competencies of the two professions and their cooperation in the delivery of services to the patients.

### Key messages

- Comprehensive health workforce planning is a need and challenge for the health system in Slovenia
- Results showed that interventions in the provision of health workforce have to be assessed and applied regularly and cautiously

# Health workforce forecasting study in Slovenia (2015-2035)

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#### Issue/problem

Slovenia has been experiencing a lack of comprehensive health workforce planning since its independence. The response to shortages of health professionals (predominantly medical doctors) in mid-90 s resulted in a rising number of medical students. A decade later, the extensive growth (in numbers of students) occurred also in nursing education. These processes have not been adequately managed. We decided to produce a forecasting study for the period 2015–2035 for physicians and nurses. Aim of our study was to provide input for the national strategic planning of human resources in health.

Objectives of the forecasting study were: assessment of the quality of data sources, development of methodology and presentation of results to the policy makers. We developed a simple mathematical model to forecast future developments in medical and nursing workforce. Our forecast was based on demographic characteristics of the current workforce, including anticipated retirement, mortality and unemployment rates, as well as on the expected number of graduates.

#### Results

We assessed the quality of the main data source, the National Health Care Providers Database (i.e. registry of health professionals). Using the model we developed, four different scenarios were applied, depending on the number of graduates in medicine and nursing. All four scenarios showed growth in both professional groups within the 20-year observation period. However, the rates were much higher for nurses than for physicians. The highest scenario for physicians showed a 39% increase while the one for nurses was of 300%. On the other side, the lowest scenario for physicians showed a 21% increase and the one for nurses was of 164%.

## Lessons

There is a strong need for clear objectives regarding governance and performance of the health system in Slovenia. Our forecasting study may be challenged by raising