

## **Healthcare improvement science: Can we provide more insight and better educate healthcare professionals?**

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**Background:** The improvement of healthcare quality and patient safety are clinical targets recognized by all healthcare professionals (HCP). The research to determine which improvement strategies are effective has been insufficient.

The aim of ISTEW Project (<http://www.uws.ac.uk/improvementscience>) was to develop shared academic and practice based programs that enable European Universities to build improvement capability within their own healthcare workforce, through engagement with students.

**Objective:** We focused on review of available education in the European partners' countries (Scotland, Slovenia, Poland, Spain, Italy) in order to prepare an overview of each partner's current Healthcare Improvement Science (HIS) education and/or training programs for healthcare professionals.

**Methods:** We searched 10 electronic databases for research on HIS education and / or training published between 1980 and 2011. We reviewed 367 studies and contacted 60 Higher Education providers.

First, a mapping tool was designed to gather information on existing HIS learning programs that are currently being delivered across Europe using the Bologna cycle descriptors and specific search terms and template fields were applied. We also sent out 62 online questionnaires to colleagues involved in the Healthcare Improvement Science research or education in an attempt to identify the programs from hidden curricula (conferences, etc).

**Results:** Most of the available relevant education was found within the post-graduate programs, the countries that included HIS related education in a higher proportion in undergraduate courses target particular healthcare disciplines (medical staff and nurses).

England has the higher number of courses in multidisciplinary fields, followed by Spain, Romania and Poland. The main keyword for the English courses was "leadership" as for the other countries keywords like "management" and "improvement" were more frequent.

**Conclusions:** In most countries, the academic environment has failed to produce continuous and sustainable curricula for the teaching of Healthcare Improvement Science.

In all partner countries we have found examples of HIS education but we have not found any that have a systematic approach to the development of Improvement Science.

These findings suggest the need to create an unified core curriculum in way that values each partner's educational experience and knowledge and is adaptable to the particular cultural, socio-economic and health challenges found in each.