

## Reviewer's report

**Title:** Internship Workplace Preferences among Final Year Medical Students from Zagreb University Medical School, Croatia: All Roads Lead to Zagreb

**Version:** 3 **Date:** 14 March 2006

**Reviewer:** Delanyo Dovlo

### Reviewer's report:

#### General

I have reviewed the above interesting subject of internship preference of Croatian medical students. While the subject is of interest it needs to be presented with a bit more clarity as to the aims and objectives of the study and why the authors think it is significant. These may be surmised but do seem somewhat unclear to me at this point.

I am not very good at statistics and someone else may need to look at the data and how it was handled.

Is it a study simply about where Croatian students want to go for internships only? Is it about its effect on future workplace placements? Is it about finding reasons for the mal-distribution of doctors between rural and urban areas in Croatia?, Is it about the role internship locations play in getting one's specialization choice? What does internship location choices mean for the health system in Croatia? All these are sort of alluded to in the text but the framework or hypothesis of the study seems not very clear to me.

#### Detailed comments:

The abstract was succinct and to the point. The section of abstract describing "results" - need some clarity - "students belief that he/she would secure a residency post in desired specialty.... " the link between not getting desired specialty in future and choosing to intern in Zagreb was unclear to me.

#### Introduction:

The introduction gives a succinct literature review on HR planning and balancing supply and demand in rather generic terms. Perhaps some more literature describing medical training system and doctors distribution geographically and by specialty in Croatia may provide the context within which an outsider can understand the study better.

Distribution problems I guess are world wide and not only in developing countries and I think this is fairly widely documented. I did not quite understand (paragraph 3 - Introduction) "one technique has shown some success - uses targeted undergraduate education programme.... Etc" what is the technique? And what is meant by targeted undergraduate education? Do you mean selecting medical students from rural areas?

The next paragraph talks of "degree of confusion and resignation and serious disparities in specialty preferences" what is the confusion about? Is the disparity between their choice and the governments needs or between their choice and what openings are available? I think the authors will need to rephrase this section to convey the message appropriately.

#### Subjects and methods:

Are there other Medical Schools in Croatia asides Zagreb? It will be good to know and understand what proportion of graduates are from the ZUMS. (then we need to look at title that talks about final year students in Croatia.

### Setting,

I wondered whether some graduates fail to find any internship place - what is the situation? Are internship locations fewer than medical graduates or is it simply that graduates only go for city internships. Secondly, what proportion of internship locations are city based and how many rural, does internship in Zagreb increase chances of getting one's specialty choice or otherwise?

Paragraph 2: While the issue of declining government physicians was clear, I failed to understand what was meant by a "gradual increase in physicians in rented offices and constant number employed in privately owned facilities..." Are both of these private sector? Are the second in self owned facilities?

Why is a decline in unemployed physicians seen as a problem in the health care provision? It will help readers I think, if this is clarified.

### Measurements :

I think it might be useful to give brief explanations of the units of measurement here - gender is obviously clear, grade point average etc also, but It might be good to understand what is meant when asking about "specialization preferences", or "emigration preference"? Etc.,.

### Results:

I am not sure about this - I thought it may be interesting to show even without the statistical analysis how gender, age , place of birth reflected on a choice of Zagreb or otherwise for internship and then to say how it plays out when subjected to the stats tests.

### Discussion:

Interesting discussion. I think it is asking too much to expect that one week "community practice" out of a 6 year course would create an urge to work in rural areas. In the study cited, how many days were spent on rural community practice? I think you make a great case that having spent all but 1 week of medical study in Zagreb one would expect that they should want to stay in a city.

I found the aspect of the discussion on wastage as a result of ?shortage of internship locations both in Zagreb and nationwide? (not clear) - with young doctors seeking alternative occupations. It will be helpful to link this line of thought to whether there is an overall shortage of doctors in the country? It will also help to get a sense of the numbers of internship posts versus the numbers of applicants. It may also be educative to find out the number of Croatian doctors (or for a cohort of medical graduates) that work outside the profession as Pharmaceutical company representatives etc.,.

Again with emigration and shortages of consultants, I think the context will need to be described a bit more - Who does HRH planning (or planning for physicians) in Croatia. When was the last plan? Are current practices addressing the plan's needs and if not why not? My determination is that, newly graduated Croatian doctors are unable to find internships because a) they want Zagreb, b) there are not enough internship posts countrywide, c) interns move towards new job markets and don't want to work as physicians. That you believe this may have implications for future specialist numbers? (are these different for different specialties?) and shortages due to emigration once Croatia joins the EU? That interns believe they cannot get their specialty of choice so do not want to practice medicine and chose Zagreb for internship so that they can easily find other jobs?

If so then I think you need to streamline the flow and arguments and create better linkages between the study and the questions above.

I am not sure that given the questions asked, "recall bias" was likely to be much of a problem (concluding statement) . Again it was unclear, how internship choices made because of inability to get specialty residence choices is linked to emigration

The subject I think is important and reflects how early interventions can influence physician placement after qualification, but it is difficult to understand the context and the linkage between the various issues and I will suggest that the authors review and clarify the various issues to get a more coherent flow in the discussion. I believe the study and write up may need to be revised before submission.

**What next?:** Accept after minor essential revisions

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Needs some language corrections before being published

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.