The International Society of Radiographers and Radiological Technologists Survey to Support The World Health Organization’s Strategy on Human Resources for Health: Workforce 2030

In alignment towards the WHO’s Strategy on Human Resources for Health: Workforce 2030

The 18 Million shortage of healthcare personnel by 2030

An 2020-2021 Project

Terry Ell and Dimitris Katsifarakis
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The International Society of Radiographers and Radiological Technologists (ISRRT) is the only organization that internationally represents all disciplines of Medical Radiation Technology (radiological technologists, radiographers, radiation therapists, ultrasonographers and MRI and nuclear medicine professionals) in over 90 member societies in more than 86 countries, with 500,000 society members and in excess of 18,000 associate members.

Founded in 1962, the ISRRT is a non-political, not-for-profit, United Kingdom based registered charity (registration number 276218) dedicated to globally supporting the development of radiation medicine technology. The ISRRT has official Non-Government Organization (NGO) status with the World Health Organization (WHO). The ISRRT also has an association with the United Nations and works with other international organizations such as the International Society of Radiology (ISR) and the European Society of Radiology (ESR) and has official observer status with the International Atomic Energy Authority (IAEA).

It is the on-going Vision of the ISRRT “To be the leading international organisation representing the practice of medical imaging and radiation therapy technology by promoting the highest achievable standards of patient care and professional practice”. Core values of the ISRRT are defined as professionalism, excellence, dedication, compassion, and integrity. The Mission of the ISRRT is “To improve the standards of delivery and practice of medical imaging and radiation therapy throughout the world by acting as the international liaison organisation for medical radiation technology and by promoting Quality Patient Care, Education and Research in the radiation medicine sciences”.

Globally, patients, need and deserve equity to access Health Care Services including imaging and therapy services they receive by a radiographer. The WHO has stated that by the 2030 the demand for health workers is estimated to almost double, with the expected creation of 40 million new health workers jobs, primarily in upper-middle and high-income countries. WHO’s global strategy on human resources for health envisions there may be a potential shortfall of 18 million health workers, primarily in low- and middle-income countries, if universal health coverage is to be achieved and sustained by 2030. Investing in the quality of jobs in terms of working conditions, labour protection and rights at work are key to retaining health workers where they are needed.
The WHO is committed to developing a global strategy for human resources for health (HRH) on universal health coverage. After significant consultation with Member States, the WHO published two important documents: The Global strategy on Human resources for Health: Workforce 2030 (Appendix 1 and Global strategy on human resources for health: Workforce 2030 (who.int)) and the Five-year Plan for Health Employment and inclusive Economic Growth 2017-2021 (Appendix 2 and 9789241514149-eng.pdf (who.int)). Some important extracts from these documents have been copied to support the under-developed need for the project (Appendix 3).

As an official NGO member of the WHO, the ISRRT sent out a survey to all its member societies which aligns with the policies and actions of the “WHO Global strategy on Human resources for health: Workforce 2030”. The aim of the project is to provide reliable data and evidence-based solutions to the WHO, for addressing these issues.

The survey (Appendix 4) was sent in April - May 2021 to 80 societies of the ISRRT. A reminder was sent in early June 2021. Ultimately, 44 surveys were returned for a response rate of 55%. The following report summarizes the data recovered from this survey’s data and makes recommendations for future work.

**Question #1. Has your society developed a code of ethics for radiographers?**

Thirty-one (69%) of the respondents reported that their society had independently developed and followed a code of ethics for radiographers.

Those that did not currently have a code of ethics for radiographers include those who were in the process of doing so or who adhered to policies developed by other sources. For example, one society had adopted the ISRRT document (Code of Ethics | ISRRT).

Societies without a unique code of ethics followed policies developed for other disciplines such as radiologists or other healthcare professionals. In several instances the code of ethics was established by local regulatory authorities often without input from the radiographic society.

**Question #2. Have standard competencies (knowledge and skills) or a scope of practice specific to practicing radiographers been developed in your country?**

Eighty-six percent of respondents stated that relevant standards or scope of practice had been developed. Feedback indicated that in some cases (14%) unique radiological standards did not exist. Reasons included a lack of expertise to create them or they had been developed by disciplines or organizations other than those of the society (e.g. the local regulatory authority such as the Ministry of Health).

It was also evident that such standards were not universally implemented. In some cases, though policies had been developed there is no supervision or oversight of for their implementation or which disciplines followed them. Private clinics or large governmental
hospitals are more likely to adhere to such standards while smaller or more rural facilities may be reticent to do so.

**Question #3 Are members of your society satisfied with these standards or scope of practice?**

Those that responded affirmatively to this question (64%) were more likely to note that their perspective was positively influenced if their members had been involved in the development of the standards rather than having been created by an external source. It was recognized that the scope of practice must be updated on a regular basis and that role extension, particularly into non-traditional disciplines (e.g. sonography), would require the development of appropriate competencies.

A number of societies commented that the scope of practice was not universally followed by all employers and that the standards are not always protected by local legislation.

**Question #4 Does your society feel that the entry-to-practice education received by radiographers matches the health needs of the local population and is adequate to ensure optimum patient care?**

While the majority of respondents (75%) felt that the entry-to-practice education meets the health needs of the local population and is adequate to ensure optimum patient care, it was well recognized that the knowledge and skills upon graduation must be continuously upgraded for a radiographer to practice optimally in the future. Continuous professional development is essential. Those who choose or are required to practice in newer modalities, other disciplines, or engage in advanced roles require additional support. It was also asserted that a two-year diploma program is inadequate preparation for a graduating radiographer.

Unfortunately, resources from funding organizations such as government and health facilities do not always meet the training or post-graduate needs of radiographers.

**Question #5 Are members of your society obligated to participate in a formal continuing education program on a regular basis?**

Sixty-six percent of the respondents indicated that continuing professional development (CPD) is a requisite to maintain an annual license to practice either as a requirement for society membership or due to statutory regulations. Some indicated that this requirement is encouraged but cannot be mandated by the society due to governmental control of the regulations. In other situations, it is the employer who stipulates this requirement. This may vary between public and private facilities.

In instances where CPD is not mandatory, the need for enhanced education was still seen as a professional duty and an important contributor to patient care. Radiographers supplemented their practice by attending seminars and workshops.

**Question #6 Are the educational facilities/programs accredited and if so by whom?**
The majority or respondents (84%) indicated that their educational facilities/programs were accredited. The accreditation body was almost always a governmental agency such as the Ministry of Health, Ministry of Education, a Radiographer’s Registration Board (which may or may not include members of the society) or a consortium of these groups. In some cases, there is a national evaluation/accreditation agency which may or may not operate independently from governmental oversight.

CPD offerings were typically not accredited but may be endorsed by the society itself.

**Question #7 Is your society been directly involved with a regulatory or licensing body that regulates radiographers?**

This question continues to investigate the authority of the society to regulate practicing radiographers. Only 61% of the respondents indicated that the society was directly involved with the regulatory or licensing body regulating radiographers. Control often rests with the Ministry of Health. However, most of those who responded negatively revealed that there is often a collaboration between the society and the official regulatory organization. Societal members may partner with the regulatory/licensing body by being nominated or appointed to the board.

**Question #8 Does your society feel that there are sufficient radiographers now and in future?**

Interestingly, the feedback for this question was the most negative of the entire survey. Only 43% responded affirmatively. Only one society felt that the market for radiographers was “saturated”. It was generally believed that there is currently insufficient radiographers to meet current demands and that shortages were likely to increase in the future.

A variety of reasons were offered for this deficiency. These include an aging population of radiographers that are expected to reach retirement age in the years to come. In some situations the need to staff upcoming facilities has put a strain on available personnel.

There also appears to be a discrepancy between the needs in various environments. For example, rural healthcare centers often struggle to fill available positions and private and public facilities often compete for staff.

Some societies report a lower rate of entry into radiography training programs. The emphasis and resources available for training may be lacking. In some jurisdictions the high cost of overseas-based programs and lack of possible government scholarship often deter interested persons from applying to the profession. Some reported that there is an inadequate number of available clinical placements during training.

The pandemic may have added to staffing woes. The pandemic has increased pressure on radiography services including more overtime and decreased staffing levels required to deal with backlogs. In some cases, there may be a decrease in the number of graduates and enrollees during the emergence of the pandemic.
Finally, some societies report that graduates may be lured away by higher pay or better benefits in other fields or districts.

**Question #9 Does your society believe that radiographers have access to decent working conditions?**

Most (66%) of the feedback indicated that societies believe that radiographers have access to decent working conditions. The most common concern expressed to the contrary was that of limited compensation for their expertise and responsibilities. Discrepancies in income and work conditions are particularly evident when comparing well established medical centers with small health clinics.

Other barriers to working in an ideal environment were reported to include interprofessional rivalry between radiographers and radiologists, governmental interventions and restrictions, lack of respect from radiologists and other healthcare professionals, and not being permitted to be involved with decision making opportunities.

**Question #10 Does your society believe that radiographers are afforded safe working conditions including protection against physical and emotional mistreatment and gender, religious, and cultural biases.**

The majority (77%) of the responses indicated that radiographers are afforded safe working conditions. Comments to the contrary were few and non-specific. Apparently, there may be isolated cases where radiographers may face unsafe working conditions.

**Question #11 Are radiographers allowed freedom of mobility (e.g., rural vs urban, public vs private, international mobility)?**

Eighty-four percent of respondents indicated that radiographers were allowed freedom of mobility. A number of those that replied otherwise indicated that international mobility was disallowed or limited. It was also stated that it is difficult to return to the public sector having left and working in the private sector. A transition from rural to urban and vise-versa posed bureaucratic limitations. In instances where graduates have a diploma rather than a bachelor’s degree there are limitations as recognition of the diploma certification can make mobility difficult and frustrating. Radiographers are not allowed freedom of mobility in the case when they have a bond from government, private sector or any institution.

**Based on the feedback from this survey several recommendations can be made:**

1. It is within the ISRRT’s mission to assist societies to promote a discipline-specific code of ethics when required that meets local regulations and to encourage local authorities to permit societies to maintain and implement them according to radiographers’ needs.

2. It is within the ISRRT’s mission to assist societies to promote a discipline-specific standards of practice as required that meets local regulations and to encourage local
authorities to permit societies to maintain and implement them according to radiographers’ needs.

3. The ISRRT believes that a standardized level of entry-to-practice education for radiographers must be adequate to ensure optimum patient care and match the health needs of the local population.

4. The ISRRT provides access to continuing education offerings that meet the continuing educational needs of radiographers globally.

5. The ISRRT has developed documents that could be used to develop accreditation standards for radiographer training programs and promote their implementation.

6. The ISRRT encourages direct societal involvement in local regulatory and licensing bodies that regulates radiographers.

7. The ISRRT will continue to undertake an assessment of the current and future staffing needs of member societies and support opportunities that will ensure adequate recruitment needs.

8. The ISRRT believes that it is important to assist member societies to work towards decent working conditions for all radiographers to support optimal patient care and to encourage opportunities to easily relocate between various jurisdictions.
Appendix 1
Global strategy on human resources for health: Workforce 2030

Appendix 2
FIVE-YEAR ACTION PLAN FOR HEALTH EMPLOYMENT AND INCLUSIVE ECONOMIC GROWTH (2017–2021)

Appendix 3


Page 2, para 2: Dismantling the long-held belief that investment in the health workforce is a drag on the economy, the Commission found that health workforce investments coupled with the right policy action could unleash enormous socioeconomic gains in quality education, gender equality, decent work, inclusive economic growth, and health and well-being.

Page 3 Para 3: As populations grow and change, the demand for health workers is estimated to almost double by 2030 with the expected creation of around 40 million new health worker jobs, primarily in upper-middle and high-income countries. Each health and social worker job is supported on average by at least two additional jobs in other occupations in the broader health economy.

Page 3 para 4: Investing in the quality of jobs in terms of working conditions, labour protection and rights at work is the key to retaining health workers where they are needed.

Page 3, para 5: Achieving a sustainable health and social workforce is an intersectoral pursuit that requires coordinated leadership and action across the sectors of government responsible for finance, labour, education, health, social affairs and foreign affairs, as well as close collaboration with employers’ and health workers’ organizations, professional associations and other key stakeholders.

Document: Global strategy on human resources for health: Workforce 2030

p.12, para 13: The vision that by 2030 all communities have universal access to health workers, without stigma and discrimination, requires combining the adoption of effective policies at national, regional and global levels with adequate investment to address unmet needs. Realistically, the scale-up required in the coming decades to meet increasing demand, address existing gaps and counter expected turnover is greater than all previous estimates. Projections developed by WHO and the World Bank (Annex 1) point to the creation of approximately 40 million new health and social care jobs globally to 2030 (14) and to the need for 18 million
additional health workers, primarily in low-resource settings, to attain high and effective coverage of the broad range of health services necessary to ensure healthy lives for all.

Appendix 4
ISRRT Survey