

Roundtable on Fostering the Collaboration Between Security and Radiotherapy-Focused Organisations

(24-25 October 2023. Bethesda, MD, USA)

REPORT

Background

Several international initiatives support the secure use of radioactive sources through a range of activities aimed at strengthening their physical protection and the competencies of the organisations using or regulating these sources. These international efforts also include programmes to support the development and use of non-isotopic alternative technologies to radioactive sources, which greatly contribute to reducing radiological security risk.

In parallel, other international organisations and programmes are implementing activities to address the ever-growing cancer care needs, in particular in low- and middle-income countries (LMICs). A prerequisite to success for these programmes is the availability of proper treatment machines, such as medical linear accelerators, also known as Linacs. Linacs do not contain radioactive sources and most recent ones are generally considered to be more advantageous alternatives to Co-60-based teletherapy units.

Security-focused and radiation-therapy-focused organisations share the same objective: facilitating the world-wide sustainable use of Linacs in radiation therapy. The World Institute for Nuclear Security (WINS) and the U.S. Department of Energy's (DOE) National Nuclear Security Administration (NNSA) Office for Radiological Security (ORS) are therefore organising a series of activities aiming at consolidating respective needs and objectives, reviewing ongoing activities, identifying existing overlap, and suggesting opportunities for collaboration. Such opportunities for collaboration may be identified amongst international governmental organisations (IGOs) or non-governmental organisations (NGOs) themselves, or between IGOs and NGOs.

As part of this series of activities, WINS and ORS have organised on 24 and 25 October 2023 in Bethesda, MD, USA an inaugural roundtable to explore areas of common interest for both security and radiotherapy-focused organisations and identify collaboration opportunities beneficial to both groups.

Objectives of the Roundtable

The roundtable was organised to bring together relevant organisations – both from within and outside governments – to review the global status of radiological security and radiotherapy in the medical sector, and to assess the remaining challenges in both areas, particularly in LMICs.

The roundtable provided an overview of the relevant stakeholders involved and showcased areas of collaboration between these two disciplines. The event was also an opportunity for participants to explore how security and radiotherapy-focused organisations could work together to achieve joint objectives. The event further gave attendees the opportunity to explore the benefits of a strengthened collaboration and identified risks of a lack of coordination between the two disciplines.

Representatives from security, radiotherapy and other disciplines were invited to share instances of collaboration between organisations, in particular those coordinating the actions of multiple NGOs. Participants of the roundtable discussed how the experience and lessons learned from these cases can be applied to strengthening the collaboration between security and radiotherapy-focused organisations.

Finally, the roundtable aimed at identifying concrete steps to improve coordination between organisations participating in the event. Attendees discussed ideas and potential areas of collaboration and explored whether or not new partnerships could be formed.

Event Process

The roundtable brought together 25 delegates from 17 organisations. More than half of the audience had direct involvement in cancer care matters, while nearly 25% was mostly engaged in radiological security matters.

This event was interactive and built around a number of presentations from invited expert speakers, as well as plenary and small group discussions that enabled participants to further explore the topic and share their experience and perspectives.

Main Outcomes

Keynote Presentation: *The Case for Collaboration between Health and Security Lessons from COVID-19 and the International Cancer Expert Corps (Monique Mansoura, ICEC)*

Ms Mansoura delivered a keynote presentation highlighting the fact that safe and resilient health care systems are critical for health, economic and national security. She explained that collaborative work was the only way to develop safe, secure and resilient communities. Ms Mansoura then described how the events of 9/11 and the COVID-19 pandemic forced the US government to consider national security and health matters together. She presented some of the specific action plans that were developed in the US to address certain health-related national security threats. Ms Mansoura then briefly introduced the International Cancer Expert Corps (ICEC) and its contribution to address selected health challenges such as infectious diseases and non-communicable diseases. She also highlighted the cultural challenges posed in the collaboration between security and healthcare professionals.

According to Ms Mansoura, cancer care lies at the intersection of national security, global health and economic security and acts as an incentive to building global problem-solving partnerships. She concluded her keynote by stating that the launch of the US State Department Bureau of Global Health Security and Diplomacy as a result of managing the COVID crisis serves as an example of better communication and coordination. The Bureau integrates global health security as a core component of US national security and foreign policy.

During the follow-up discussion, participants highlighted the following issues:

- There is a need to develop a multi-risk approach, as not enough resources exist to deal with all risks individually.
- There is need for further efforts to ensure a balance between security needs and access to healthcare.
- Health community needs to temper tribalism and work to convince security people of the importance of health issues; Security professionals needs to move past objections to idea that pandemics/health issues are high priority issues.
- Resources (budgets) are limited, and fund allocation is driven by perceived risks and priorities.
- People, in particular medical staff and patients, need to trust technology, otherwise they will not get used.
- The importance of collaborative work, which is a force multiplier: “The whole is greater than the sum of all its parts”.
- Developing competences will support flexibility and reactivity to any crisis that may emerge.

Presentation: *Stakeholder Mapping Project – International stakeholders involved in the adoption of alternative technologies to radioactive sources within the medical sector (Jennifer Hart, PNNL)*

Jennifer Hart from PNNL presented the Stakeholder Mapping Report which was published in November 2022. Ms Hart indicated that the objective of this report is to identify key international stakeholders involved in the adoption of alternative technologies related to medical applications and consolidate their main missions and contributions under one framework. She mentioned that the document refers to around 70 international stakeholders, including Intergovernmental Organisations, Non-Governmental Organisations, Government Support Programmes, Manufacturers, Vendors, Developers, Sponsors and Funders. Ms Hart then highlighted three key findings of the report: 1) International stakeholders assist states that lack infrastructure, finances, and personnel needed to procure, operate, and maintain equipment; 2) International stakeholders are heavily involved in capacity-building initiatives; 3) Support tends to occur on an ad hoc basis and the stakeholders involved vary depending on the project and the site. She concluded her presentation by highlighting the importance and challenge of keeping this report up to date.

Discussion

As a follow up activity, participants were encouraged to discuss the role of NGOs, explore how their role differ from other stakeholders such as governmental agencies, and overall to explain why NGOs are needed. participants highlighted the following thoughts:

- NGOs can act quicker than governmental agencies. They are not subject to political constraints and changing agendas.
- NGOs are usually far less bureaucratic. They can provide quick assistance on the field.
- NGOs can be flexible. They can run innovative programmes and explore new areas.
- NGOs are often specialised and know very well their constituency.
- NGOs are good conveners and can give room for effective conversations.
- NGOs can outreach regions of the world where governmental programmes might not be welcome.

Session 1: A Review of the Global Status of Radiological Security and Radiotherapy in the Medical Sector

Objective of the session: The session was designed to review the global need for radiotherapy in the world and how to address it, especially in LMICs. It was also to remind the participants of the security risk posed by radioactive sources used in radiotherapy and of the various options, including replacing sources by non-isotopic alternatives, to mitigate this risk. The objective of the session was finally to identify, in both areas, the remaining challenges and opportunities for improvement.

Presentation: *Worldwide Inequalities in Access to Radiation Medicine: The IAEA Rays of Hope Initiative (Lisa Stevens, PACT, IAEA)*

Dr Stevens began her presentation by highlighting the global inequity in access to care, the ever-growing number of cancer cases and the significant shortfall of radiotherapy machines in LMICs. She then provided an overview of the key considerations for countries when developing comprehensive cancer control programmes and selected activities conducted by the IAEA to support its Member States developing such programmes or strengthening their treatment capacities.

Dr Stevens then introduced the Rays of Hope Initiative, which aims at assisting Member States in establishing or expanding their capacities in radiotherapy and multimodality medical imaging. She highlighted the role of designated Rays of Hope Anchor Centres in maximising the delivery of high impact interventions to cancer patients and the importance of ensuring radiation safety and nuclear security at all stages of the cancer control programmes. In conclusion of her presentation, Dr Stevens introduced the Sustainable Dialogue on Peaceful Uses and in particular its Workshop Series on Improving Access to Radiation Medicine in West Africa.

Discussion

Participants then reflected on the presentation and shared their perspective on the global need in cancer care. Furthermore, they indicated which key issues needed to be addressed in various areas, such as equipment, competency building, maintenance and sustainability, and to highlight what the remaining challenges in meeting these issues are.

Similar to other events on this topic, the discussion emphasised the immense need for cancer care in LMICs, including the supply of treatment machines, as well as the identification, education and retainment of qualified personnel. Some participants mentioned that similar challenges were occurring in rural areas of certain HICs.

Participants also mentioned that providing Linacs should be part of a comprehensive cancer control national strategy and should go hand-in-hand with developing a healthcare workforce and a full prevention and treatment strategy. There was widespread agreement among that audience that LMICs were facing a shortage of qualified health care workers.

Participants considered that the awareness of the availability of alternative technologies to Co-60 teletherapy units was spreading quickly and that the focus should now be on facilitating their adoption. Attendees mentioned the essential role of lessons learned and success stories and further highlighted the importance of training and availability of maintenance personnel for Linacs and of purchase of warranty for a sufficient duration. Finally, attendees discussed establishing regional maintenance centres as a possible solution to this problem.

Presentation: *Introducing the American Society for Radiation Oncology (Cindy Tomlinson, ASTRO)*

Ms Tomlinson started her presentation by describing the mission and membership of her organisation. In particular, she explained how ASTRO supported the advancement of radiation oncology specialty through promoting equitable, high-quality care for people with cancer, cultivating and educating a diverse workforce, fostering research and innovation, and leading policy development and advocacy. After introducing the seven main ASTRO goals and objectives, she provided more details for two of them: driving high quality care and leading policy advocacy.

When detailing ASTRO activities in driving high quality care, Ms Tomlinson presented the ASTRO Accreditation Program for Excellence, the Radiation Oncology Incident Learning System (RO-ILS), and a set of publications developed in collaboration with multiple partners. Regarding policy advocacy matters, Ms Tomlinson indicated that ASTRO wanted to serve as a credible resource that educates and influences the federal government on the benefits, value and innovation of radiation oncology to the overall healthcare system. She concluded her presentation by mentioning the Source Security Working Group (SSWG), which is an alliance of professional societies and corporations seeking to ensure the reliable supply of radioactive sources and a balance between beneficial use of such sources and associated safety and security requirements.

Presentation: *Introducing the Global Coalition for Radiotherapy (Shandi Barney, AdvaMed)*

Ms Barney kicked off her presentation by describing the vision, mission and values of the Global Coalition for Radiotherapy (CGR). She then presented the organisation's five key initiatives:

- 1.) **The Collaborative Community Initiative**, which aims at providing space for a digital and on-the-ground network to connect and support colleagues in their advocacy efforts and at linking with industry leaders, patient groups, individuals, advocates, organisations from all sectors to highlight the need for equitable access to radiotherapy.
- 2.) **The Response to Crisis Initiative**, launched as a result of the COVID-19 pandemic, which established a radiotherapy task force benefiting of direct access to key partners (industry & strategic) and aiming at providing immediate relief to individuals impacted by crisis situations .



- 3.) **The Advocacy Initiative**, which includes creating documents with global reach such as the GCR Advocacy Toolkit, writing and supporting publications to advance radiotherapy exposure, establishing relationships with organisations that advise ministries of health and politicians on health policy, and presenting on behalf of global radiotherapy community at high-impact events.
- 4.) **The Digital Innovation Initiative**, which consists of developing a global strategy for the digital transformation of radiotherapy delivery, publishing white papers on closing the care gap through digital disruption, and digital expertise through an online global network (webinars, communication, social media).
- 5.) **The Communication Initiative**, which supports awareness spreading through weekly news digests, webinars, partners network, publications, and social media.

Ms Barney concluded her presentation by highlighting two key areas of focus for CGR: 1) The digital technology revolution in radiotherapy and how GCR helps close the gap with professionals, industry and policy makers to ensure this moment is not lost for the much-needed digital transformation in radiotherapy cancer care; and 2) the need for collaboration and networking, including a constant dialogue with stakeholders to provide cross organisational opportunities to share and contribute, learning opportunities through culturally specific education, and mentoring the next generation of radiation oncologists.

Discussion

Participants reflected on the presentations and indicated if they thought that international support encompasses all types of needs for cancer care.

Participants agreed that the need for cancer care in LMICs was far above the capacities of international programmes. Since health care matters may lead to significant issues in a country - and in certain circumstance escalate to a national security issue - some links already exist between the security and the medical sectors. There was also agreement that a business case exists in investing in the healthcare system. Unfortunately, in many cases, patients cannot afford the treatment, and countries do not have the necessary funding to develop comprehensive cancer care strategies and therefore must prioritise their investments and efforts. Supporting cancer care worldwide will require significant amount of funding. The audience further agreed that talking to governments and potential funders require specific processes and skills. Participants stressed the importance of sharing experience and lessons learned talking to key stakeholders and recognised the role of lobbyists in support of such efforts. Opportunities of cost-sharing were highlighted as an opportunity to address individual funding constraints.

Participants also spoke about the actual costs of Linacs and production capacities. Some discussions revolved around opportunities to reduce the cost of the machines and if the structure of the market (limited number of manufacturers) was a factor influencing the sales price. Participants expressed differing perspectives on the rationale behind the cost of Linacs.

Presentation: Radiological Security in the Medical Sector (Kristina Hatcher, US DOE)

Ms Hatcher started her presentation by describing the three key missions of the US DOE Office for Radiological Security (ORS), which consists of enhancing global security by preventing high-activity radioactive materials from being used in acts of terrorism. She then detailed the three components of ORS efforts: protect, remove and reduce.

Ms Hatcher continued by reminding the audience that threats to sources continue to be very credible and that the prevalence of these materials all around the world made them an attractive target to people with malicious intentions. She then focused on high activity sources, in particular Category 1 ones, and described ORS efforts to facilitate the replacement of such sources by alternative technologies. In particular, she explained how ORS efforts were part of a global and national strategy to reduce the radiological security risk.

Ms Hatcher further provided examples of activities initiated by ORS to facilitate the adoption of alternative technologies, such as outreach and educational activities to increase awareness of technology options and their benefits. She also presented the international efforts conducted by ORS in supporting the removal of more than 50 sources, including Cs-137 for blood and research irradiation and Co-60 for radiotherapy, and their replacement by alternative technologies.

Ms Hatcher finally described how ORS contributes to research and development projects aimed at developing new and affordable alternative technologies. She concluded her presentation by providing some examples of ORS international collaboration projects on radiotherapy, which include support to multiple organisations and programmes including the IAEA, ICEC, WINS and SDPU.

Dialogue with Miles Pomper, ICEC

Following the presentation, Mr Pomper engaged in a dialogue with the event facilitator on radiological security matters and in particular to discuss the *Treatment not Terror* report released in 2016 and to reflect on what had changed since the publication of the document. He started by reminding the audience of efforts conducted by the international community in the 1990s and 2000s to reduce highly enriched uranium. This led to look at other materials at risk, in particular Cs-137, and to apply the same principles. Mr Pomper highlighted that it is not possible to simply remove Co-60 without offering an alternative, therefore efforts to raise awareness of the risk and to facilitate the adoption of Linacs were conducted in parallel. Mr Pomper indicated that radiological security was not the only field that requires attention and funding. For instance, professionals dealing with the biological risk have very similar discussions.

Discussion

After the dialogue, participants reflected on the previous discussion and shared their views on the successes of the international community in enhancing radiological security, the challenges that remain and possible priorities for the coming years. There was widespread agreement that radiological security had significantly increased in the last two decades. Due to the introduction or update of international instruments as well as comprehensive international recommendations and guidance published by the IAEA, most countries have developed national regulations, and the need for security has spread amongst all end-users. Participants were also in agreement two key challenges faced by the community are maintaining a threat awareness and sustaining the implemented security measures. Thus, the discussion then highlighted the importance of consolidating and disseminating incident information and considering replacing sources with alternative technologies whenever possible, thereby achieving permanent risk reduction.

Session 2: The Need for Security and Radiotherapy-focused Organisations to Work Together

Objective of the session: The session was designed to review and discuss the respective missions and objectives of various stakeholders involved in radiological security or in radiotherapy. The session also enabled participants to share experiences of collaboration between the two disciplines and to identify the benefits of a strengthened collaboration and the possible risks of a lack in coordination.

Presentation: *The International Cancer Expert Corps' Experience of Working with Security Organisations* (Nina Wendling, ICEC)

Ms Wendling began her presentation by sharing her organisation's vision (A world in which everyone has access to interventions to prevent and treat cancer and its symptoms using high-quality best practices for the local circumstances) and its mission (To improve the outcomes of cancer care to the underserved LMICs and to geographically underserved regions in HICs often involving indigenous populations).

Ms Wendling then presented the various ICEC programmes, in particular around mentoring (Matching Experts to Needs) and innovation (New Equipment Design). Ms Wendling then described how and why ICEC began to work with security organisations. In particular, she highlighted the role of the *Treatment, not Terror* publication and the fact that security encompasses more than just radiological source security and that the growing global cancer crisis threatens security worldwide. She provided some examples of security and medical organisations working together. Amongst others, she quoted combining resources in raising awareness, workforce education, and technical innovation.

Ms Wendling further highlighted the importance of working together, developing networks, thinking globally, and acting locally. As an example, she presented the Access to Radiotherapy Technologies Study (ART) in the Baltics, Eastern Europe, Central Asia and the Caucasus, which aims to understand the level of access to LINAC-based radiotherapy and understand barriers to and plans for the adoption of Linacs in order to increase access to cancer care and reduce reliance on Co-60 EBRT in these regions.

Ms Wendling concluded her presentation by detailing all the security organisations who are engaged with ICEC and by encouraging participating organisations not to miss the opportunity to jointly reduce the nuclear and radiological security risk and support global health.

Presentation: *Transitioning from COBALT to IMRT: The Guatemala Experience (Hiram Gay, Washington University in Saint Louis)*

Through a remote presentation, Mr Gay spoke about a project providing state-of-the-art radiotherapy equipment in the referral cancer hospital LIGA/INCAN in Guatemala. The project consisted in replacing a Co-60 machine with a Linac and establishing LIGA/INCAN as a radiotherapy Centre of Excellence demonstration site. After detailing the main schedule of the project, Mr Gay listed the main stakeholders involved and highlighted the role of Washington University as the overall project manager. He then presented the role of various stakeholders and provided more details on the repatriation of the disused Co-60 source to the US.

Mr Gay also highlighted the fact that the fate of some other disused sources, in particular used for brachytherapy, also had to be addressed by the project, and that the disposal of some of these sources was still pending. Mr Gay then shared some lessons learned from the project. He first indicated that it was a great success and that the treatment capabilities of the hospital had been significantly increased. In his concluding remarks Mr Gay highlighted the importance of the buy-in and coordination of all stakeholders, a strong project management structure, an understanding of cultural aspects, and local champions to keep the project moving and address challenges that arise during the project.

Presentation: *Supporting Radiological Security through Radiotherapy Education (Emily Kruse, Rayos Contra Cancer)*

Ms Kruse presented another perspective on the Guatemala case study and an overview of her organisation, Rayos Contra Cancer (RCC), which has the mission to create sustainable access to high-quality, timely and affordable radiation treatment for cancer patients in limited-resource settings globally. She emphasised that RCC activities focus on education and training in areas where support is otherwise scarce for radiation therapy. She then provided more details on the development and implementation of RCC training programmes.

Ms Kruse then shared some information on RCC contribution to the Guatemala project, in particular the training opportunity offered in 2020 to 115 individuals from eight clinics. Ms Kruse also presented the 25 RCC training programmes implemented for more than 5,000 participants from all over the world between 2019 and 2023. She highlighted the successes of such courses in increasing participants' knowledge and confidence.

Finally, Ms Kruse highlighted the importance of partnerships with other similar organisations or stakeholders. In her conclusion, she once again stressed the challenge faced by the community in addressing global radiotherapy educational needs and that only clear team roles and teamwork will offer a way to successfully meet these needs.

Discussion on facilitating the collaboration between security and radiation therapy focused organisations.

As final activity for Day 1, participants formed subgroups to discuss the significance of collaboration between the two fields. In particular, participants identified the benefits to be expected for security organisations and for the medical community.

There was consensus that Linacs are more effective than Co-60 machines for cancer treatment. Reducing reliance on Cobalt-60 for cancer treatment provides a direct benefit to security and global health. Participants further agreed that optimal collaboration and coordination of efforts between all stakeholders would facilitate and speed up the transition. Avoiding duplication of efforts and bringing together the broad expertise and capacities existing amongst governmental and non-governmental organisations was seen as a prerequisite to success. Security and medical people should form coalition to become a force multiplier and to amplify their respective messages.

Participants encouraged a continuing dialogue between the security and medical sectors to raise awareness of respective expectations and prevent unexpected consequences (e.g., providing Co-60 units to countries with a security risk or preventing the replacement of a Co-60 unit without assessing the impact on patients).

Discussions also highlighted that security professionals often had access to high-level decision makers in a country and may facilitate communication between healthcare professionals and decision makers to convey key messages. Furthermore, those working in security may also lobby regulators and other stakeholders to remove barriers to the adoption of alternative technologies. They can highlight the modern aspects of alternative technologies and communicate on benefits. On the other side, healthcare professionals could help security professionals in identifying and outreaching facilities using radioactive sources and can further facilitate education on security needs to the medical workforce.

Day 2: Opening Session

Presentation from Rolando Camacho (*City Cancer Challenge*)

Mr Camacho presented a project that was launched as a pilot by UICC in 2017. He explained that its mission was to support cities around the world to improve their local access to cancer care. This project engaged 40 different cities, and he explained the process for engaging a city, and the different committees developed to implement such projects (such as a City Executive Committee or a City Technical Committee).

Mr Camacho shared a lesson learned on the importance including and collaborating with global partners to be able to also include a diverse range of technical experts. He further explained that once a specific need was identified, then a project was established. He also explained that there are guides specifically developed for each partner of public access.

Presentation from Yakov Pipman (*Medical Physicists for World Benefit*)

Mr Pipman explained to the audience the specific medical physics needs in LMICs and the different gaps in supporting activities from other players – such as the IAEA. He also described the difficulties in guaranteeing support for all organisations with needs since some may remain under the radar, and the importance of mentorship to help these project move forward. Mr. Pipman detailed the core needs to be addressed, such as peer-to-peer support, a database of potential volunteers, visits by volunteers to work with medical physicists in LMICs, build long-term relationships/ongoing support, expanding support/knowledge of radiation therapy, among more.

Session 3: Lessons Learned by Projects Aiming at Improving NGOs Coordination and Communication.

Objective of the session: This session was designed to understand the experience in coordinating multiple NGOs and collaborating with other disciplines. During this session, participants also explored how organisations can improve their collaboration efforts and provide comprehensive and sustainable assistance to partners. Finally, the session included good practices for bringing advocacy-focused and implementation organisations together.

Presentation: *on Lessons learned Managing Coordinating Multiple Stakeholders (Taylor Grove, CRDF Global)*

Mr. Grove presented on a CRDF Global project called Sustained Dialogue for Peaceful Uses (SDPU). This project is funded by DoS/MNSA and UK DESNZ and implemented by CRDF Global while working in close coordination with the IAEA. The project explores the remaining barriers to nuclear science and technology in LMICs by conducting workshops, consultations and webinars. The main goal is to bring more stakeholders into the nuclear science and technology field, providing support to identify funding for projects that come from SDPU events. He also described all their activities conducted since the programme began in October 2022.

Discussion with Lisa Stevens (IAEA PACT) on Training/Education Support.

Ms Stevens explained the IAEA project “Rays of Hope” and how it has demonstrated a rise in demand in training/education. She further elaborated on the IAEA’s working group focused on training, which is trying to develop a catalogue with past trainings, anticipating training needs and organising a process for candidate identification and endorsement. Ms Stevens outlined a set of challenges associated with this. The first one was a gap of knowledge/capacity/interest in some National Liaison Officers (NLOs) in medical physics applications and technical cooperation opportunities. According to her, there is also a gap of in-country knowledge of the NLO and their role. That is why she explained that the IAEA is trying to increase exposure with ministries of health through partnerships with the World Health Organization. She concluded the discussion by stating the importance of organisations involved in these topics to communicating with each other and identifying intersections between security and health.

Session 4: Concrete Steps to Improving Coordination Between Participating Organisations.

Objective of the session: During this session, participants were given the opportunity to explore experiences in coordinating multiple organisations related to security and radiation therapy. The main objective was to understand ways to bring security topics into the radiation therapy arena, and who should be involved in the security community. The audience further examined ideas, opportunities and areas for potential collaboration and creation of partnerships between the two communities. The session included adequate platforms to support enhanced collaboration, the identification of indicators of progress and the stakeholders to lead the coordination efforts.

Presentation: *on Possible Collaboration and Ways Forward (Eduard Gerskevits, North Estonia Medical Center)*

Mr. Gerskevits explained some of the challenges that NGOs and other organisations working on these topics has, such as funding, personnel, missions, political support. He highlighted the importance of exploring streams of funding, identifying varied sources and ways to share the costs. He described how the security community should understand what and where are the gaps in alternative technology in order to avoid spending resources on impractical areas. And, at the same time, that the medical community should explore ways to plan for the implications of a transition from Co-60 to Linacs in the long term. Mr. Gerskevits’ presentation analysed the cost and benefits of such technology transition, the risks associated with it and other alternative treatment therapies. He further highlighted the need for more training for biomedical engineers to sustain equipment.

In term of next steps, Mr. Gerskevits stated the importance of expanding the organisations involved in these roundtables and spread the scope exploring the intersection with other global health priorities. He underlined the importance of having annual meetings on this topic, opening new opportunities to share lessons learned and best practices, host periodic conferences and hold each other accountable for progress. He also emphasised the importance of developing a repository for information on this regard and identify assistance and training opportunities.

Session 5: Turning Ideas into Action: Next Steps

As final activity of the roundtable, participants were asked to brainstorm on potential practical next steps to the event and to identify 3 areas they could further explore collectively. The group identified the following priority topics: 1) Linac Transition Incentives; 2) Enhancing Engagement with the IAEA; and 3) Cost/Benefit Analysis

The main takeaways were as follows:

Linac Transition Incentives

Participants suggested to establish a path of least resistance as a concept, to pilot projects showing transition from Cobalt-60 to Linac as a success (such as Guatemala). They also recommended to explore the development of positive incentives such as cost sharing, maintenance coverage and disposition coverage. They also recognised the existence of negative incentives such as the requirement of a justification for the use of a new Co-60 license before receiving a license. During the course of the discussion, it was also mentioned that relying on economics as the base justification is an effective argument, and that it was important to include lifetime costs, security benefits, among others. Participants suggested a better communication on medical benefits of using Linacs (e.g., refer to alternative technologies as “Advanced technologies”). Finally, the participants also suggested that the Ad Hoc Working Group takes an even more active role and organise events addressing all aspects of the transition process from Co-60 to Linacs.

Enhancing Engagement with the IAEA

The main takeaways regarding enhancing engagement with the IAEA were the need to promote access to and awareness of NLOs within countries, and also to consider reviewing an NLO job description and evaluation process. Participants highlighted the importance of NLO biannual meeting to take place on the side of this ministerial meeting. It is also important to ensure that NLOs have disseminatable information about IAEA programmes, such as Rays of Hope, and that the NLO should coordinate with sites to ensure they have capacity/infrastructure to support equipment donations. Participants also emphasised significance of regional coordination across NLOs.

Cost/Benefit Analysis

Regarding the discussion on Cost/Benefit Analyses, participants agreed on analysing the cost/benefit at different levels such as treatment and no treatment, radiation therapy versus surgery versus chemotherapy, and Cobalt-60 and Linac. Participants also suggested the need to develop a tool based on AI/algorithms that calculates the cost/benefit information for specific localities/modalities.