

## Global Brain Health Institute – Bangladesh Partnership International Dementia Academy Bangladesh (IDAB) 2020-2021

*ESTHER Ireland Case Studies Series: Irish Institutions in North-South health partnerships*

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### The Partnership at a glance

Partner	Details
Irish Partner Institution	Global Brain Health Institute, Trinity College Dublin
Overseas Partners Institution	<p>This project established partnerships with a number of overseas organisations to deliver dementia education to clinicians in Bangladesh, regardless of institutional affiliation. Partners include:</p> <ul style="list-style-type: none"> <li>• <b>Neurology Academy</b> – <a href="https://neurologyacademy.org/">https://neurologyacademy.org/</a></li> <li>• Mr. Azizul Haque, Founder and Secretary-General, <b>Alzheimer’s Society of Bangladesh (ASB)</b></li> <li>• Dr. Shahriar Faruque, MBBS, MCPS, MD (Psychiatry), <b>Shaheed Ziaur Rahman Medical College, Bogura, Bangladesh (SZRMC)</b></li> <li>• Dr. Badrul Islam, Assistant Scientist, <b>International Centre for Diarrhoeal Disease Research, Dhaka, Bangladesh (icddr,b)</b></li> <li>• Dr. Sanjib Saha, Assistant Researcher, <b>Lund University, Sweden</b></li> <li>• Dr. Sridhar Vaitheswaran, Assistant Director and Consultant Psychiatrist, <b>Dementia Care in SCARF (DEMCARES), Schizophrenia Research Foundation (SCARF), India</b></li> <li>• Dr. Raisul Islam Khan, Specialist in Geriatrics and Gerontology, <b>Stockholm</b></li> </ul>

## Details of the project

<p style="text-align: center;"><b>Focus Area</b></p>	<p style="text-align: center;">To increase awareness and understanding of dementia among healthcare professionals in Bangladesh to foster better diagnosis, support and care for people living with dementia.</p>
<p style="text-align: center;"><b>Target Group and Beneficiaries</b></p>	<p style="text-align: center;">Direct beneficiaries include healthcare professionals and people with dementia in Bangladesh</p>
<p style="text-align: center;"><b>Support Received from ESTHER Ireland by 2021</b></p>	<p style="text-align: center;">€7,975 EUR</p>

## Partnership Development

This partnership started with visits by Dr Iracema Leroi, Professor at the Global Brain Health Institute, to Bangladesh in March 2019 and November 2019. She met all the stakeholders of the partnership including Shaheed Ziaur Rahman Medical College (SZMC), Bangabandhu Sheikh Mujib Medical University (BSMMU), The National Institute of Mental Health and Hospital, (NIMH) and the Sir William Beveridge Foundation (SWBF) to:

1. Assess the possibility of establishing a partnership between thought leaders and educators in the respective institutions
2. Identify shared priorities and develop a joint agenda around dementia, with a particular focus on professional education and awareness-raising amongst professionals.

Subsequent contact and collaborations included:

- **December 2020:** Contact with co-app Dr Shahriar Faruque, and the BSSMU partners.
- **January 2020: Global Brain Health Institute (GBHI)** and **Sir William Beveridge Foundation (SWBF)** participated in the inaugural steering group meeting to develop mental capacity act legislation for Bangladesh.
- **February 2020:** GBHI held a workshop in Dublin to develop a "**Charter of Conduct for International Collaborations for Dementia Research**". The aim of this work was to lay out a framework for equitable, balanced partnerships between high-income and low- and middle-income countries. The partners from Bangladesh participated in the workshops and discussed the possibilities of collaboration based on this new framework of equitable partnerships.
- **March 2020:** GBHI held the same workshop in San Francisco

Moreover, the collaboration between **SWBF** and **GBHI** in the **UK Global Challenges Research Fund (GCRF)** funded a feasibility study on a pragmatic psychosocial intervention for people with dementia and concurrent hearing impairment. This led to initial capacity and capability development for dementia-related research.

All these activities gave the momentum to start this multi-institutional partnership, which involves partners from the following institutions from Bangladesh:

- Dr. Shahriar Faruque, MBBS, MCPS, MD (Psychiatry) from **Shaheed Ziaur Rahman Medical College, Bogura, Bangladesh (SZMC)**: a government medical college in Bogura, Bangladesh
- **Sir William Beveridge Foundation (SWBF)**: an international charity that seeks to address several problems in developing countries. This organization is working towards developing awareness of dementia among healthcare and social care professionals as well as decision-makers in Bangladesh.
- Mr. Azizul Haque, Founder and Secretary-General of the **Alzheimer Society of Bangladesh (ASB)**
- Dr. Badrul Islam, Assistant Scientist of **International Centre for Diarrhoeal Disease Research, Bangladesh (icddr,b)**

We were subsequently joined by the following partner co-applicants from the following institutions from Ireland, the United Kingdom and India:

- **Global Brain Health Institute (GBHI)**: a global leader with the aim to help the world's ageing populations from risks to brain health. The Atlantic Philanthropies gave significant funding to the University of California, San Francisco (UCSF) and Trinity College Dublin (Trinity), to establish the GBHI in 2015. GBHI is working to reduce the burden of dementia by training and connecting the next generation of leaders in brain health, by collaborating in expanding preventions and interventions and by sharing knowledge and engaging in advocacy.
- **Neurology Academy**: a UK-based innovative education provider for clinicians, specialist nurses and professions allied to medicine. The training program focuses on both disease management and service

transformation.

- Dr. Sanjib Saha, Assistant Researcher, **Lund University**
- Dr. Sridhar Vaitheswaran, Assistant Director and Consultant Psychiatrist, **Schizophrenia Research Foundation (SCARF)**, India

Therefore, through the ESTHER funded project, we established our core partnerships to increase dementia capacity and capability in Bangladesh through education of professionals.

## Partnership's Focus

Dementia now ranks as one of the leading causes of death and disability. Worldwide, around 50 million people have dementia, with nearly 60% living in low- and middle-income countries (LMIC); there are nearly 10 million new cases every year. The total number of people living with dementia is projected to reach 82 million in 2030 and 152 million in 2050.

In Bangladesh, with a population of 165 million, misunderstandings and poor health literacy regarding dementia are widespread. Health and social care services to support people with dementia and their families are rare. Family members, usually women, or informal and untrained caregivers, are on the front line of delivering dementia care in the home setting, which often has negative health, social and economic implications. Moreover, the health and social care infrastructure to diagnose and support people with dementia in Bangladesh is minimal, and mental capacity act protections for people living with dementia have yet to be developed. Also, financial and social support for carers of people living with dementia does not exist. There is no stand-alone or integrated national dementia plan, and there are no dedicated resources to implement such a plan. However, dementia is highlighted in the government's Plan of Action for Non-communicable Diseases (NCD); thus, there exists a fertile opportunity to introduce change through international collaboration and partnerships.

**The partnership aimed to improve awareness and understanding of dementia amongst healthcare professionals through the following activities:**



*Figure 1: Major phases of the project*

1. **Conducting** a series of virtual meetings to draw up the gaps in education and content and format of an educational offering for clinicians.
2. **Developing the course:** A five-month sustainable online and flexible course was created for International Dementia Academy Bangladesh (IDAB) (<https://neurologyacademy.org/events/course/dementia-masterclass-bangladesh>) by 16 international experts to train healthcare professionals appropriately and build further capacity for dementia training and resource centers. **We created an online platform and model for teaching that can be adapted for dementia teaching** not only in Bangladesh but also in many LMICs with the same healthcare and infrastructure as Bangladesh.



Figure 2: International Dementia Academy Bangladesh (IDAB) Course creation

### Course format:

- Online: The course was delivered through a professional learning platform via Neurology Academy, UK, and consisted of 29 pre-recorded lectures divided into 8 themes, with each lecture being followed by a quiz and additional reading.
- Monthly group sessions: A live session was organized on the last Friday of each month, aggregating a total of 10 hours, where
  - answer doubts/questions
  - Discuss case studies
  - Revise through quizzes
  - Share updates from the course and advancements in the field of dementia.
- Quality Improvement Projects – Learners were invited to develop a Quality Improvement (QI) project proposal to aid in better dementia-related services in Bangladesh. 14 delegates (70%) out of all active delegates created an individual or group QI project proposal, resulting in a total of 7 proposals. The top 2 Quality Improvement projects were announced and awarded at the conference, each receiving a funding of 250 euros (the equivalent of 24,000 Bangladeshi Taka).

<b>Project name</b>	<b>Author(s)</b>
Trainer's training program for palliative care nurses/caregivers caring for dementia patients	Israt Jahan Dowel
Knowledge, attitude, and practices of health and social care professionals regarding dementia care in Bangladesh	Mohammad Mainuddin Mollah, Dr. Saifun Nahar Dr. Nasim Jahan
Mobile apps development for the dementia patient and their caregivers	Md Rashidur Rahman
Project Shoron	Dr. Lisanul Hasan Jayanta Sen Abir
Developing a virtual psychosocial intervention model for caregivers of dementia patients in Bangladesh	Srijony Ahmed Taslima Yasmeen Chowdhury Mahjabeen Aftab Solaiman
Subtype Specific Dementia (SSD) Scoring System to detect dementia subtypes in Bangladesh	Md Badrul Islam Josepha Elizabeth
Psychoeducational Program for Reduction of Dementia Family Caregiver Burden: A Prospective Study in Two Tertiary Care Centers of Bangladesh	Redwana Hossain Fatima Tuz Zohra

*Table 1: Quality Improvement project proposals submitted to International Dementia Academy Bangladesh (IDAB) and their corresponding authors*

- Final live/remote F2F conference: Delegates, core faculty and other professionals in Bangladesh had the opportunity to participate in a live mixed-platform day-long conference in Dhaka on January 8th, 2022. This was hosted jointly by Alzheimer Society of Bangladesh and the National Institute of Mental Health. The conference consisted of:
  - plenary talks about dementia from international faculty
  - presentations from civic organisations like the Alzheimer Society of Bangladesh

- delegate project presentations in poster formats and lightning talks.
- four learners also had the chance to present oral talks on key topics from the course.
- prize-giving ceremony and awards for the best Quality Improvement (QI) projects.



*Image 1: The best Quality Improvement project proposals being awarded*



*Image 2: Mr. Azizul Haque, Founder of Alzheimer Society Bangladesh (centre) with core team members Dr. Shahriar Faruque and Dr. Badrul Islam, and delegates who are flaunting their newly received certificates.*





Image 3: Chief guests of the day, core team members and delegates holding placards that say “I am a dementia friend” in Bengali

With the conference hosted both in-person and live, it allowed for a larger audience to be present at the conference:

<b>Audience category</b>	<b>Number</b>
Delegates	9
Team members	3
Faculty of National Institute of Mental Health (NIMH)	4
Caregiver	1
Others	49
Online Streaming	8
<b>Total</b>	<b>74</b>

Table 2: Audience distribution at the first International Dementia Academy conference held on 8th January, 2022



3. **Implementing the course:** The course was delivered to 27 delegates over a span of 5 months, with the sixth month consisting of the conference. Each delegate was chosen through an application process, enabling us to include only committed professionals who are willing to adapt their career trajectory to include dementia. We purposely limited the pilot course to 27 learners, with nationwide representation and across several disciplines, to ensure high-quality learning, based on interactive principles. As a result, we have started a **network of early-career health and social care professionals** dedicated to dedicating their careers to dementia and becoming brain health leaders. Most of our learners were at the early stage of their professional careers, especially psychiatrists. Thus this intensive training helped in changing the arc of their careers and career choices in a meaningful way, filling the gap for dementia care in Bangladesh.

4. **Seeking external guidance** – The **International Dementia Academy Bangladesh (IDAB) Advisory Board** is a group of people including Bangladesh-based and international influencers - scientists, psychiatrists, policymakers at the national level as well as researchers experienced in dementia and project management. We reported to the Board twice annually about our progress and overall project management and received feedback on our course. The Board also ensured buy-in from leading academics and policymakers in Bangladesh. They supported the implementation of policy change as well as acted as a 'critical friend' to ensure that we met our objectives, guided by the Theory of Change. As the project continues and expands, the Advisory Board member will play an important role in encouraging their students to take part in the course as well as dissemination of the course. This confirms the sustainability of the course.

Name	Role	Workplace
Dr. Maliha Hakim	Professor of Neurology	National Institute of Neuroscience (NINS), Bangladesh
Dr. Abdullah Al Mamun	Professor and Head of Psychiatry	Dhaka Medical College Hospital (DMCH)
Dr. Robed Amin	a. Line Director b. Director General of Health	a. Non-Communicable Disease Control (NCDC) b. Ministry of Health and Family Welfare, Government of Bangladesh
Dr. Dinesh Mondal	Senior Director	Laboratory Sciences and Services Division (LSSD), icddr,b
M. Al Mamun	Scientist	Nutrition and Clinical Services Division (NCSD) The International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B)
Professor Brian Lawlor	Deputy Executive Director	Global Brain Health Institute
Dr. Eoin Cotter	Program Lead, Learning Experience	Global Brain Health Institute
Dr. Mohammad Tariqul Alam	a. Associate Professor of Psychiatry b. General Secretary c. Member of the Editorial Board	a. National Institute of Mental Health, Dhaka b. Bangladesh Association of Psychiatrists (BAP) c. Asian Journal of Psychiatry
Dr. Farhad Ali Khan	Director	Global Epidemiology and Pharmacovigilance, AstraZeneca, Lund University

Table 3: The membership of the International Dementia Academy Bangladesh (IDAB) Advisory Board

5. **Evaluating the course** – Because of the nature of the training, cultural adaptation, and design, the training was found to be very **cost-effective** and induced **further local partnerships** and **Quality Improvement Projects**. Additionally, one of the biggest advantages of the course was that it provided enough **flexibility** to the delegates considering that they were working professionals, which explains the comparatively **low attrition rate**.

The overall effectiveness of the course was evaluated through the **Kirkpatrick model** and via the following three methods of data collection:

- Self-reported questionnaires: An evident positive impact on the Knowledge-Attitude-Practices of the learners was recorded as is evident from the table below:

Total number of learners accepted	27
Attrition rate	25.92%
Final number of learners	20
Course completion rate amongst final learners	75% (15 out of 20 delegates successfully completed the course)
Percentage of learners agreeing to the course having a positive impact on their Knowledge-Attitude-Practices in relation to working with people living with dementia and their care partners	77%

*Table 4: Effectiveness of the course through self-reported questionnaires*

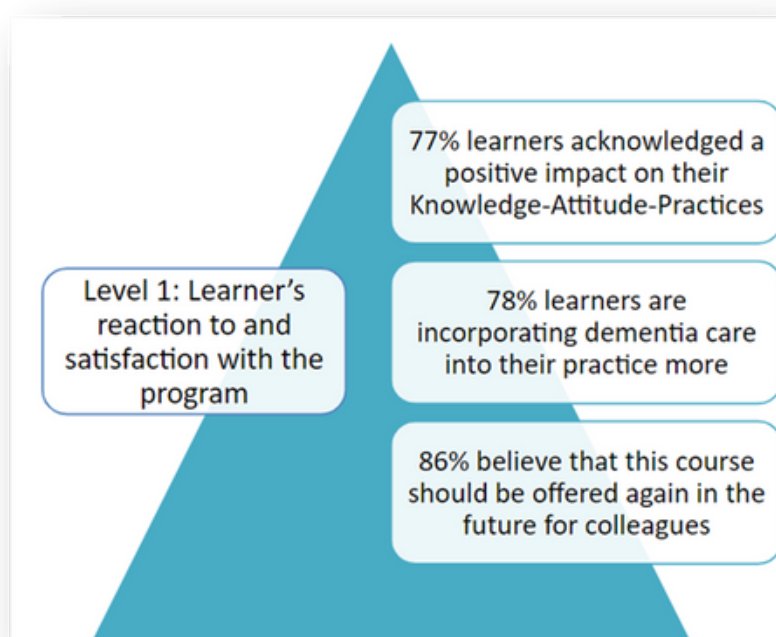
- Post-lecture quizzes

Cumulative quiz scores	Percentage
Lowest average	50.86%
Highest average	87.85%

*Table 5: Post-lecture quiz results*

Additionally, 6 delegates (30%) out of the active delegates performed exceptionally well based on both cumulative quiz scores and behavior (timely completion of each theme and engagement). The lowest average score for the exceptional performers was 71.35% while the highest was 87.55%.

- Delegate behavior: there was high satisfaction with course content, delivery, and utility.
  - 80% attended live interactive sessions
  - 90% participated in online group chat.



*Figure 3: Level 1 of Kirkpatrick model*

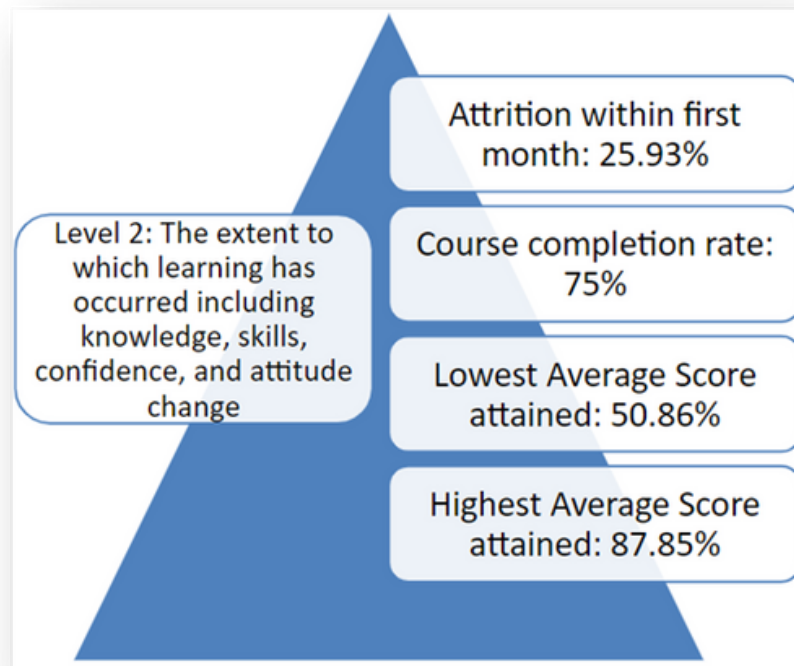


Figure 4: Level 2 of Kirkpatrick model

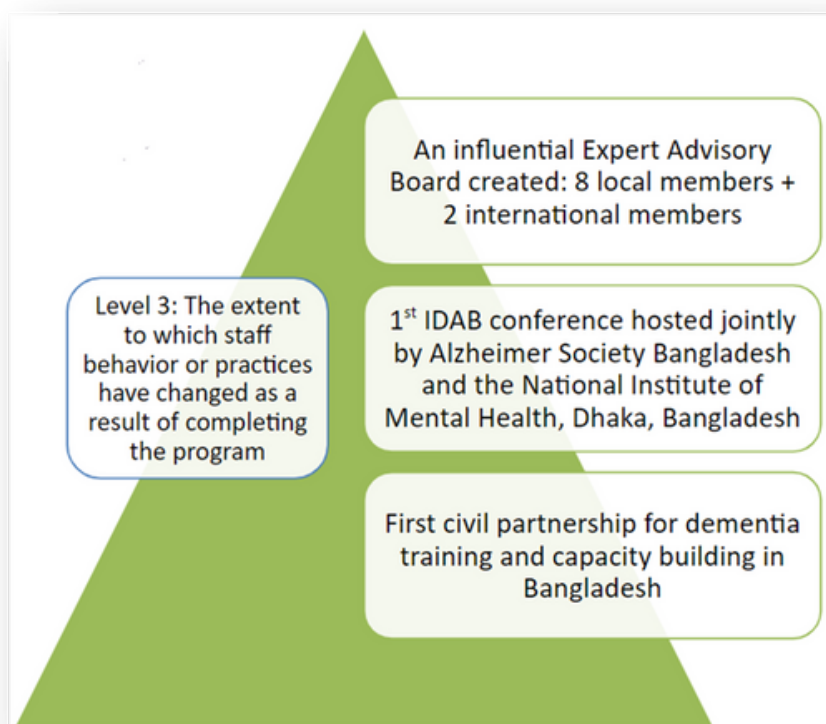


Figure 5: Level 3 of Kirkpatrick model

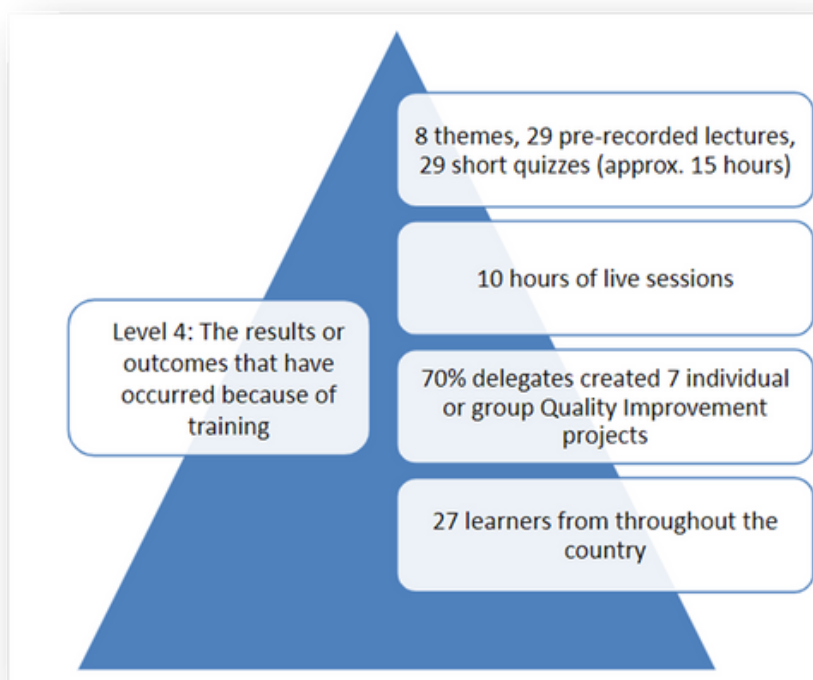


Figure 6: Level 4 of Kirkpatrick model

## 6. Next steps

We have adopted the learnings from the pilot to seek additional funds for further development and delivery

- We have applied and received more funding from our original funder, ESTHER Ireland to increase the reach of the course
- For this year's delivery, we have included India, resultantly changing the name of the course from 'International Dementia Academy Bangladesh (IDAB)' to 'International Dementia Academy South Asia (IDASA)'
- More speakers have been included to allow for regional differences and increase shared international knowledge.
- We have made provisions for including professionals from other regions to participate and experience IDASA as a model to take to their regions – for example, Dr Khanyo Ntokozo Ngcobo from South Africa.

## Summary and conclusion:

We have scoped, developed, and piloted the first ever international and sustainable dementia training in Bangladesh. This online platform and model for teaching can be adapted for dementia teaching not only in Bangladesh but also in many LMICs with the same/similar healthcare and infrastructure as Bangladesh. The following points were especially considered when creating the training:

1. Relevance of training to delegates' role, practice and culture
2. Accessibility of training and learning approach adopted -



3. The quality of the training materials
  4. Trainer/educator qualities – course delivered by experienced lecturers and facilitators
  5. Need for practice-based learning in addition to theory – fulfilled by introducing case study discussions, demonstrations and delegate-driven projects.
- The partnerships have been a success as reflected by obtaining further funding and expanding the course into India as IDASA.

## Lessons Learned

### ANSWERS:

Bottlenecks encountered	Solutions implemented/proposed
Language barrier (Bengali to English)	Most general discussions in the live meetings were held in Bengali except for major teaching and learning.
Decreased ease of access due to dependency on technology	Constant support emails sent, and technological help offered from Neurology Academy for portal log-in, quiz and content access issues.
Limited time for live discussions and feedback	Possibilities of delegate-to-delegate discussion were opened, as well as welcoming questions and discussions via emails to speakers and the core team.
The pace of the course was found to be 'very fast' in reference to working professionals for a few learners	The pace of course delivery was deliberately slowed down and a month of a gap was provided to learners that were struggling to make ends meet timewise. On follow-up, it was found that the learners could catch up after the gap gradually.
COVID-related delays to work and the need to go online	Quizzes had been arranged within live sessions and on-spot feedback has been provided as was requested by the learners.

### **Bottlenecks remaining:**

**Answer 1.** This course was designed as a pilot project with learnings to be implemented in subsequent iterations. The top 3 things that we would keep the same are:

- a. Friendly material delivered by experts in the field
- b. Inclusion of local context
- c. Opportunities for peer-to-peer support, learning and networking

However, we believe that the course could be presented in a more accessible format as about 35% of the learners felt so, including more feedback given after quizzes. We are currently discussing the possibilities with Neurology Academy regarding the same to be able to provide what the learners look forward to.

Additionally, there were issues surrounding the lack of enough technical and online resources to fulfill all demands of the learners that could have made the online experience better for them – like, and especially,

- a. preference for direct links to papers over citations,
- b. feedback after the MCQ round.

These issues are being addressed for the next course delivery.

**Answer 3.** There has been continued and effective communication about project pace and lessons learned through a monthly team-meet in addition to the regular email exchange. We believe that the lessons were learned together as the entire project was a team effort with action taken after collective suggestions and discussions for any bottleneck encountered.

### **Answers 2. and 4.**

Significant inter-organization rivalry exists between two of the partners – this made co-working (particularly regarding the conference) very challenging. The rift between the medical and civic organization communities in Bangladesh (and Pakistan, from previous experience) is deep, with mistrust on each side. The project provided an opportunity to work together towards a common goal; however, at times that goal was forgotten. It is therefore recommended that all partners are frequently reminded of the final goal of the project and any confusion or conflict of interest is immediately resolved.