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Outcome & Evaluation: A 2014 prevalence study found 33.1% of people in Chimbo had blood pressures indicative of hypertension. Of this cohort, 70.1% had no prior knowledge of this fact. In addition, 9.6% of the adult population had been diagnosed with diabetes and the mean BMI was 29.3 kg/m^2. A longitudinal study initiated in June 2015 enrolled 223 participants who will be educated and monitored indefinitely. Residents of Chimbo perceive the value of health monitoring and express eagerness for the continuation of the project.

Going Forward: The project has institutional support of the local clinic, the FNDLA, and Loyola's ISI program. Difficulties will include recruitment of future student volunteers, loss to follow-up in the longitudinal study, and education of local health advocates promoting local sustainability. Feedback from future cohorts and local participants will direct future actions.

Funding: Institutional.

Abstract #: *1.024_NEP*

Making imaging around the world better: global survey of radiologists in 10 Countries

I. Brown[1], L.P. Busby[1], C. Dowd[1], N. Salamon[2], J. Romero[3], A. Vagal[4], C. Mutch[1], D. Cooke[1], S. Hetts[1], W.P. Dillon[1], B. Rehani[1]; [1]Department of Radiology and Biomedical Imaging, University of California, San Francisco, [2]Department of Radiology, University of California, Los Angeles, [3]Department of Radiology, Massachusetts General Hospital, [4]Department of Radiology, University of Cincinnati

Purpose: There are substantial unmet imaging needs for vulnerable and crisis affected populations. Our aim was to survey radiologists across developing countries in Asia, Europe, and South America to assess their imaging needs and find out what, in their opinion, are the most effective ways to improve imaging in their respective countries.

Methods and Materials: A standardized questionnaire containing 11 questions was sent to radiologists in 18 developing countries across the world. Radiologists from 10 countries responded (response rate=55%). These included Sri Lanka, Thailand, Costa Rica, Belarus, Serbia, Macedonia, Singapore, the Czech Republic, Lithuania and Slovenia. Some questions addressed the overall status of radiology in their countries and focused on potential shortages of radiologists, residency positions and medical physicists, while others focused on effective solutions to problems they face everyday.

Results: Survey results indicated that most of the countries (90%), need to establish more radiology residency training positions. For improving knowledge in radiology, every participant (100%), thought online-teaching modules would be the most effective, while only thirty-percent believed onsite-teaching workshops would help. Sicty-percent of radiologists (95% CI being 47.6 to 72.4%) believed that humanitarian "second opinion" teleradiology would be valuable in more than 50% of their cases, while forty-percent (95% CI being 27.6 to 52.4%) believed that a second opinion would be needed in less than 50% of their cases. Every radiologist surveyed (100%), believed that the subspecialty in which they feel most deficient is neuroradiology, with musculoskeletal imaging and pediatric imaging being the second and third most highly ranked choices, respectively. Only 60% (95% CI being 47.6 to 72.4%) had access to a medical physicist and most believed that they need education in radiation safety and dose reduction. Other practical questions focused on image transfer, organizational development and informatics.

Conclusion: This survey helps radiologists around the world communicate the imaging needs in their respective countries and how they can be met. This survey can help radiologists who want to reach out in their humanitarian efforts to improve imaging around the world.

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RISE (Radiology International Student Education): creation and utilization of virtual online classroom for global radiology education

L.P. Busby[1], I. Brown[1], G. Mwango[2], M. Rawlings-Fein[1], P. Sundaram[1], C. Mutch[1], B. Rehani[1], W.P. Dillon[1]; [1]Department of Radiology and Biomedical Imaging, University of California, San Francisco, [2]Kenyatta National Hospital, University of Nairobi, Kenya

Program Project/Purpose: One of the major challenges facing international radiology is a lack of available subspecialty fellowship training in the developing world. For example, the entire continent of Africa has no neuroradiology fellowship training available within the region. International travel to complete subspecialty training presents financial challenges for trainees and is in practice unsustainable as a routine method of training. We created an innovative solution by designing a virtual classroom which allow trainees from around the world to tune in live during radiology lectures at UCSF.

Structure, Method & Design: A virtual classroom was created at UCSF Medical Center to enable international radiology residents to tune in live to the radiology lectures given at UCSF. The pilot project was launched with Kenyatta National Hospital, University of Nairobi, Kenya. Kenyatta National Hospital has 45 radiology residents. Specifically, the live lectures involve two-way audio and video communication with interactive technologic solutions to annotate shared slides. The limitations in internet access, equipment availability, and cross platform technologies were solved with support of local IT staff and the Center of Digital Health and Innovation at UCSF.

Outcome & Evaluation: The impact of the virtual classroom was studied with close monitoring using pre and post lecture online exams. Advanced result analytics to assess the longitudinal performance of each radiology resident at University of Nairobi is being performed to assess the improvement in knowledge gap in multiple subspecialties in radiology. For asynchronous teaching, the RISE platform provides continuous online access to the recorded lecture database for access across different time zones.

Going Forward: In the future, the aim is to expand the RISE platform to include other countries around the world for live virtual education. We also plan to make this technology available to different medicine specialties in academic institutions across the United States so that it can be utilized for virtual education worldwide to benefit those who do not have access to specialized medical education.