

educated our local team on how to utilize the SOP and monitoring protocol and have seen great success with this to date. We have been able to monitor patients' adherence to the medication and have observed positive clinical results.

Going Forward: With the success in our pilot clinic, we hope to continue to expand the use of hydroxyurea to additional clinics in Angola, which will impact and improve the quality of life of more patients living with SDC in Angola.

Funding: This project was funded by Chevron and the medication was donated by AmeriCares in partnership with Bristol-Meyers Squibb.

Abstract #: 1.004_TEC

Mobile health innovations for low-resource settings: Experiences from a mental health community screening project in rural India

Shreya Bhatt¹, Jacqueline Edwards², Jay Evans²; ¹Medic Mobile, Mumbai, India, ²Medic Mobile, San Francisco, US

Project Purpose: This presentation shares Medic Mobile's (MM) experiences from an innovative mHealth project with community mental health workers (CMHWs) in partnership with the MINDS Foundation in India.

Low and middle-income countries (LMICs) bear over 75% of the global burden of mental illness (WHO). In India, there are nearly 70 million mental illness patients (NIMHANS). Limited government spending has resulted in a severe shortage of mental health facilities, particularly in rural areas, and a deep-seated stigma towards mental illness further hinders patients from seeking and accessing care.

Method: MM and MINDS launched a pilot in December 2014 to conduct community mental health screening in rural Gujarat. MM's SIM application allows users to collect data through custom forms on any mobile phone. For this pilot, the SIM application was designed as a mental health assessment tool, allowing CMHWs to identify suspect patients and refer them to hospitals for treatment. During the pilot, several important lessons emerged:

The challenges associated with mental illness are different from other diseases. Adopting a human-centered design approach allowed us to understand the stigma associated with the illness in rural India, and the needs of our end users - CMHWs who handle sensitive cases with utmost discretion.

Mental health survey design requires careful analysis, particularly given the social stigma. MINDS designed a survey to fit the sensitive cultural context of rural India, and MM ensured that it was technology-friendly.

Training is important for the adoption of any new technology, particularly for users with low technology literacy. Our training focused on teaching CMHWs the basic uses of a mobile phone and its specific use in a mental health context.

Outcome & Evaluation: Between December 2014 and June 2015, 1,300 individuals were surveyed across 8 villages in Gujarat. Of these, 287 individuals were identified as suspect patients suffering from mental, neurological or substance use disorders, and were referred to hospitals for treatment.

Going Forward: Well-designed mHealth tools have tremendous potential to strengthen care coordination for mental illness, particularly in LMICs, and should be further leveraged by practitioners and researchers to address the challenges of mental healthcare.

References:

1. World Health Organization. mhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological and substance use disorders. Geneva: WHO, 2008.
2. National Institute of Mental Health and Neuro Sciences (NIMHANS), National Human Rights Commission. Mental Health Care and Human Rights. New Delhi: NIMHANS, 2008.

Abstract #: 1.005_TEC

Proposal for a consortium to study anti-cancer properties of west African medicinal herbs

M.C. Bosland¹, M.I. Akpanabiatu², O. Akinloye³, M. Agiang⁴, P.F. Uzor⁵; ¹Center for Global Health & Department of Pathology, University of Illinois at Chicago, IL, USA, ²Department of Biochemistry, University of Uyo, Akwa Ibom State, Nigeria, ³Department of Medical Laboratory Science, University of Lagos, Lagos State, Nigeria, ⁴Department of Biochemistry, University of Calabar, Cross River State, Nigeria, ⁵Faculty of Pharmaceutical Sciences, University of Nigeria, Nsukka, Enugu State, Nigeria

Program/Project Purpose: Traditional herbal medicines are widely used in West Africa for a large range of disease conditions, including cancer. However, there is little information about their therapeutic efficacy and active constituents. Many academic centers in Nigeria and elsewhere in West Africa are interested in studying the biological activity of these medicinal herbs, but their technological and human resources are limited and compromised by electrical power problems. We are in the process of developing a consortium of academic centers in Nigeria joining forces with the University of Illinois at Chicago (UIC) to more effectively study the anti-cancer activity of Nigerian traditional medical herbs.

Structure/Method/Design: Four sites in the South of Nigeria have joined forces to develop this consortium covering the southwest (University of Lagos), and three different sites in the southeast (Universities of Uyo, Calabar, and Nsukka). Medicinal plants specific for each area will be selected on the basis of their use in cancer patients and collected to produce extracts locally. These extracts will be sent to UIC for high-throughput analysis of their anti-proliferative and pro-apoptotic effects on human cell lines representing four major West African malignancies, cancers of the breast, prostate, liver, and uterine cervix. Once activity has been detected, these extracts will be fractionated in Nigeria and these will be sent to UIC to identify those fractions that contain the major activity.

Outcome & Evaluation: The major objective of this effort is identification of medicinal herbs with potential in vivo anti-cancer activity for further study in animal models and human trials. Importantly, possible adverse effects (stimulation of proliferation or inhibition of apoptosis) will be assessed as well to rule out potential negative implications of use of these herbs in cancer patients.

Going Forward: Ultimately, natural compounds that are responsible for the anti-cancer activity may be identified in the extracts, but the effects of the mixtures contained in extracts are anticipated to be stronger than those of individual compounds. Inclusion of additional sites in West Africa is being explored.

Funding: Support is provided by local funding from the four Nigerian Universities and from UIC.

Abstract #: 1.006_TEC

Lessons from the establishment of Nepal's first skin bank

L.Z. Cai¹, C. Long¹, A. Iqbal², M. Casertano², B. Karki³, K. Nakarmi³, S. Anderson⁴, J. Patell², J. Chang⁵, S.M. Rai³; ¹Stanford University School of Medicine, Palo Alto, CA, USA, ²Stanford University Graduate School of Business, Palo Alto, CA, USA, ³Kirtipur Hospital, Kirtipur, Kathmandu, Nepal, ⁴ReSurge International, Sunnyvale, CA, USA, ⁵Division of Plastic and Reconstructive Surgery, Stanford University Medical Center, Stanford, CA, USA

Program/Project Purpose: In January 2014, our team partnered with ReSurge International to examine peri-operative burn care in Nepal. In Nepal, burn trauma remains an extremely common source of injury and disability, causing more than 55,000 injuries annually. Unfortunately, patients in Nepal who sustain burns on over 35% of their body cannot be successfully treated and typically die from infections. To combat this challenge, our team worked with the local Nepali team at Kirtipur Hospital to establish the country's first ever skin bank and offer these burn patients another chance at life.

Structure/Methods/Design: With the ultimate goal of creating a sustainable skin banking program, we identified four major tasks: 1) Identify and acquire the minimum set of equipment needed to collect, process, store, and graft cadaveric skin for burn injuries; 2) Develop feasible and safe donation protocols and documentation for low-resource settings; 3) Pilot test the end-to-end donation system with donors and patients; and 4) Develop a long-term awareness program to introduce the novel concept of skin donations to the Nepali people.

Outcome & Evaluation: Since January 2014, the skin bank program has made tremendous strides. The hospital acquired all of the necessary equipment and materials for the skin bank through a combination of local and international fundraising efforts. In collaboration with US-based tissue distribution organizations, existing US skin banking protocols were adapted for the Nepali setting and tested with potential patients, donors, and physicians. These successes have culminated in 3 skin donations this year, which have been successfully used to save the lives for 4 severe burn patients.

Going Forward: Long-term sustainability now depends on spreading awareness and education in the Kathmandu Valley to overcome religious and cultural barriers that have slowed widespread adoption. New partnerships with the Nepali cornea donation program and an Indian skin bank will provide valuable lessons on creating a culturally sensitive awareness campaign. Given the low cost and the high utility of this skin bank, we eventually hope to expand this system to the rest of ReSurge's international partner hospital network.

Funding: Stanford University School of Medicine, Stanford University Design for Extreme Affordability, and ReSurge International.

Abstract #: 1.007_TEC

The role of distance-learning partnerships in building local undergraduate and postgraduate psychiatry capacity in resource-poor contexts

C. Snudden, A. Carlqvist, M. Iftikhar, F. Baig, M. Ali; University of Oxford, Oxford, England

Program/Project Purpose: Unstable geopolitical environments present barriers to medical education and healthcare systems development. In Palestine, the Separation Wall, numerous checkpoints, and ongoing political volatility have made psychiatric disease particularly prominent. Cultural attitudes towards mental illness, lack of postgraduate education, and limited resources result in poor provision of psychiatric care. OxPal Medlink, established in 2011, is a synchronous web-based, distance-learning partnership aiming to address these deficits in medical education for Palestinian students and postgraduate trainees.

Structure/Methods/Design: Using an online virtual classroom, participants attend tutorials with clinicians at Oxford University Hospitals. Tutor- and student-provided cases act as the focus for developing undergraduate clinical reasoning. Postgraduate tutorials focus on sub-specialities including forensic and child psychiatry. Evaluation is via online questionnaires. A yearly field trip to the West Bank provides an opportunity to host face-to-face focus groups and semi-structured interviews with students, psychiatric trainees and clinical faculty, allowing ongoing needs assessment. During the 2015 trip, OxPal also collaborated with the Palestinian Ministry of Health, and charity IMET, to host a teaching conference in mental health attended by over 50 healthcare workers.

Outcome & Evaluation: In the past two years, 16 undergraduate psychiatry tutorials have been delivered, engaging 49 students at four universities. Students stated that OxPal positively modified their current practice with 92% rating tutorials "Fairly" or "Very" relevant to their future practice. In the last 15 months, 4 postgraduate psychiatry tutorials have also been delivered to 8 psychiatry residents at various stages of training at Bethlehem Mental Hospital. All trainees reported greater confidence in subject areas following tutorials. 66% stated that tutorials were relevant to psychiatric practice in Palestine and 100% expressed intent to register for further tutorials. All OxPal participants rated tutorials "Good" or "Excellent".

Going Forward: OxPal is a unique educational intervention using web-based distance learning to facilitate delivery of high-quality and locally-relevant teaching in psychiatry, with potential to strengthen local educational capacity. The programme has demonstrated that long-distance collaboration at both undergraduate and postgraduate level is increasingly feasible using online platforms. OxPal will continue delivering psychiatry seminars in topics requested by trainees, whilst also extending teaching to other clinical specialities such as psychology.

Funding: Our thanks are extended to MedicineAfrica (www.medicineafrica.com), the Al Quds Foundation for Medical Schools in Palestine (www.fqms.org), the International Medical Education Trust (www.IMET2000.org) and the British Medical Association