

UNIVERSITY OF UTAH/PEDIATRICS – MOTA FOFALIA CHILDREN’S HOSPITAL/GUJARAT

PARTNERSHIP PROJECT

Sorenson Legacy Foundation Project Report – Year 1

PROJECT DEFINITION: The goal of this project is to build a sustainable, collaborative, mutually beneficial, long-term partnership between the Department of Pediatrics at the University of Utah and Mota Fofalia Children’s hospital – a 50 bed pediatric hospital located in rural Gujarat, India. The partnership strives to build US and local capacity in child health, is based on a reciprocal and equitable effort of partners and creates accountability through outcome driven interventions.

PROJECT GOALS of year 1 included to improve the care standard for pediatric patients admitted to the hospital through staff training, standardization of care and patient assessments, improved medical record and inventory keeping and case management of common pediatric conditions. At baseline we identified following major gaps in patient management:

- 1) Hospital staff lacks essential knowledge and skills to provide adequate care, especially to newborns
- 2) Lack of patient assessment, vital sign monitoring and nurse assessments
- 3) Lack of a hospital management structure to direct operations and monitor quality

PROJECT ACTIVITIES and ACCOMPLISHMENTS

Improving patient care: Implementing a newborn care clinical pathway

A team of nurse leaders and pediatricians from the University of Utah and Mota Fofalia children’s hospital implemented newborn care standards in the hospital. In close collaboration with local administrative and medical leaders we *developed treatment protocols for newborns* to guide medical staff toward appropriate care in a resource limited setting. In addition our team *redesigned and outfitted the delivery room*.

Mota Fofalia Children’s Hospital



BEFORE: Newborn resuscitation station at baseline lacking equipment



Newborn protocol: Dr. Levy provides hands on training to staff



AFTER: Appropriate delivery room setup



Introduction a Pediatric Medical Record and Nursing Flowsheet

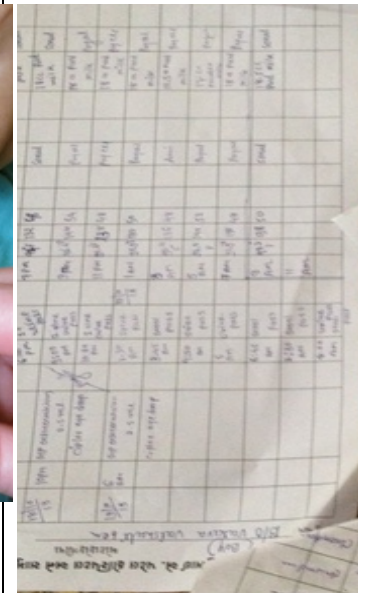
We trained nurses and paramedical staff in vital sign monitoring and interpretation and introduced flow sheets for vital signs for patients and nurse and MD documentation templates. This system allows clinicians to accurately track patient condition and progress, alerts providers about changes in condition and facilitates decision-making.

Taking vital signs



Vital signs and performing a rapid assessment are essential to identify sick newborns

Nurse documentation record



Formation of a Hospital Steering Committee

We convened a group of local stakeholders to form the hospital steering committee (MD leader, nurse leader, administrative leader). A team from the University of Utah trained members of the review board in quality improvement strategies including Plan-Do-Study-Act (PDSA) methodology. Under guidance of the UU, the medical review board meets monthly to decide on care goals, monitor project progress to create accountability.

Dr. Chris Maloney, Chief Inpatient Medicine PCMC with members of the steering committee



Hospital staff training

Pediatricians and nurse leaders at the University of Utah, in conjunction with the pediatric residency program and Global Health Initiative (GHI) provided extensive training for local staff.

- We trained ALL hospital staff (5 doctors, 9 nurses, 22 paramedical staff) in newborn resuscitation and immediate newborn care using the Helping Babies Breathe training curriculum. All trainees passed a

Pediatric residents train staff in newborn resuscitation



Ward boys completing training



standardized knowledge and skill examination and meet WHO competencies for newborn care.

- We trained 14 nurses and 12 wardboys in how to measure heart rate, respiratory rate, blood pressure and clinical danger signs in pediatric patients
- We trained 14 nurses in placement of feeding tubes for children and developed a feeding protocol
- We trained a nutritional assistant and 14 nurses in the use of a malnutrition management protocol

Ms. Julie Janes trains nurses in recognizing danger signs



Teaching staff in basic pediatric interventions: infant warmers, phototherapy and nasogastric feedings



Other program activities: Conducted by UU staff and pediatric residents

- We improved the setup and trained staff in the intensive care unit on the use of oxygen line, ventilators, phototherapy units, cardiorespiratory monitoring and hygiene and purchased missing equipment.
- We published 2 abstracts and provided global health opportunities for 2 UU faculty, 8 pediatric residents and 4 students.

NEW: Phototherapy



NEW: Ventilator and oxygen



- Community outreach activities: We engaged 78 health workers (ASHA) and 300 community workers(Anganwadi) who identify and refer pediatric patients in the community who lack skills and training. We commenced a 10 lesson training program in general

Life in rural India



Village health worker



pediatric care in February 2014 with the goal to train 78 health workers in this curriculum by the end of 2014

- We established a training center at Mota Fofalia hospital to conduct newborn resuscitation training courses health providers in other facilities in the district and coordinate our efforts with the ministry of health in preparation of disseminating our newborn care program to other districts in Gujarat.
- We conducted a feasibility assessment to establish telemedicine capabilities between the UU and India

Children waiting for treatment in community clinic



Pediatric residents setting up and operating the new training center



1 on 1 instruction



Skills training station

Reaching out to provide health services tounderserved, remote low cast and tribal people(s)



MAIN OUTCOME MEASURES

Baseline

March 2014

% deliveries with appropriate delivery room equipment and setup	0%	85%
% newborns adequately dried and stimulated	0%	85%
% newborns kept kangaroo care	0%	50%
% patients with daily heart rate, respiratory rate and temperature monitored	0%	100%
% staff (#36) with adequate skills to perform newborn resuscitation using a bag and mask	0%	100%

DELIVERABLES (year 1)

Standardized patient evaluation and management protocol for newborns	completed
Staff trained in newborn resuscitation and general newborn care	completed
Functioning patient medical record in pediatric hospital	completed
Medical review board sets 3 care goals for the hospital	completed
Telemedicine pilot testing completed	completed

FUTURE PLANS

Year 1 of this project has highly successful. We were able to significantly improve the quality of care at the children's hospital and laid the foundation for a future expansion of our project by involving community stakeholders and health workers from surrounding areas. As our collaboration with the Shakti Krupa Trust and the Ministry of Health continues to grow our future efforts will be directed at following:

- We will continue our mission to improve hospital care quality through educational efforts. We will continue staff training following a curriculum based on 24 core competencies and essential skills for hospital based health workers – doctors, nurses and paramedical staff. These trainings will be conducted by pediatric residents, medical students and faculty from the UU under guidance of the program leadership**
- During our first year of operations in India it became evident that there is an enormous unmet need in care for babies born with low birth weight (less than 2500g). More than 50% of children born in Mota Fofalia are low birth weight (LBW). These babies are 10-20 times more likely to die before age 5 and most of them will remain malnourished and stunted – thus perpetuating the cycle of LBW, early death and socio-economic losses. Despite good evidence care quality for this in the hospital and community is poor. THIS CHALLENGE IS OUR OPPORTUNITY AND OUR CALL TO ACTION.**

The University of Utah team thanks the Sorenson Legacy Foundation for their generous support during the first year of this project. Please review the attached proposal for program activities in the upcoming years.

Please do not hesitate to contact me with questions

Sincerely,

Bernhard Fassl MD

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