**Highlights from the United4Oxygen Alliance's work in Ethiopia and Nigeria**

**World Federation of Societies of Anesthesiologists**

As part of the Safe Sugery 2020 programme, in 2018 the WFSA has delivered four SAFE (Safer Anaesthesia from Education) obstetric training courses in the Amhara and Tigray regions of Ethiopia with the majority of participants coming from the following hospitals:

**Amhara**

Felege Hiwot Referral Hospital

Addisalem Hospital

Merawi Hospital

Dangila Hospital

Adet Hospital

Chagni Hospital

**Tigray**

Ayder Referral Hospital

Mehoni Hospital

Maichew (Lemlem Karl) Hospital

Korem Hospital

Alamata Hospital

Adishiho Hospital

WFSA has also undertaken an extensive equipment survey as a result of which they are now supplying Essential Anaesthesia Kits including pulse oximeters and capnographs to all of the above hospitals.

**Oxygen for Life Initiative (Nigeria)**

The [Oxygen for Life Initiative](https://oxygen4life.org/) (OLI) is a local oxygen implementer in Nigeria, which works with governments and hospitals to improve oxygen systems and ensure that every child or newborn who needs oxygen will receive it.

In partnership with the University of Melbourne’s Centre for International Child Health, OLI has reached 12 hospitals and about 24,000 newborns and children, aged zero to 14 years in Nigeria, over a two-year period (November 2015 – October 2017). OLI plans to expand next year – 2019 onward - as more hospitals and more organizations come on board.

**USAID**

Ethiopia update:

To support Ethiopia's National Medical Oxygen and Pulse Oximetry Scale Up Road Map and the United4Oxygen coalition, USAID recently conducted an assessment to identify market shaping opportunities to strengthen the delivery of safe and quality oxygen in Ethiopia. As a result, a series of promising opportunities emerged around building public and private sector collaboration to accelerate access to the road map's targets by 2020. The Federal Ministry of Health, CHAI, USAID, and other key stakeholders are now planning to convene to review the roadmap's progress so far. They will also explore potential market shaping opportunities and align next steps to catalyze collaboration around safe and quality oxygen delivery.

Nigeria update:

Pneumonia control is critical in enabling countries to achieve their SDGs, particularly as it relates to newborn and child health goals. To continue accelerating progress in reducing the child pneumonia burden, the Nigerian Federal Ministry of Health invited the Every Breath Counts Coalition (EBCC) to support the government of Nigeria in combating pneumonia-related deaths. USAID, a proud partner of EBCC, is working with the Coalition to support the Federal Ministry of Health to develop an integrated, actionable strategy and implementation plan to reduce pneumonia mortality and morbidity in a broader approach to reduce newborn and child mortality.

**CHAI**

**In Nigeria**, the Federal Ministry of Health (FMOH) has launched and begun implementation of the first-ever national oxygen strategy. With support from the Bill & Melinda Gates Foundation, CHAI has provided support to state ministries of health in three high burden northern states (Kaduna, Kano and Niger states) to improve commodity access and case management of pneumonia and hypoxemia in U-5 children across 30 high-volume hospitals (~1/3 of the total hospitals in these states). Through innovative financing, CHAI supported these state governments to co-finance and procure much needed oxygen delivery equipment (80 concentrators) and diagnostics (154 pulse oximeters) as well as requisite spare parts and consumables. In addition, 70 BMEs have been trained and mentored on the maintenance and repair of oxygen equipment through a joint collaboration with Engineering World Health (EWH). Approximately 1,200 frontline providers have been trained and supported through targeted on-site mentoring visits.  In addition, Quality Improvement Teams (QITs) focusing on child health were established and strengthened in these hospitals to improve quality of care and to ensure sustained performance. To ensure sustainability and accountability, CHAI is also working with the FMOH, as part of a coalition of partners, to update HMIS reporting for pneumonia and hypoxemia. These efforts have led to the following gains in the 30 hospitals in the focal states over the past 3 years:

* Availability of functional oxygen in focal facilities increased by 62  percentage points (pp) - from 14% in 2015 to 76% in 2018
* % of children with respiratory illness receiving an O2 saturation measurement increased 65pp (from 11% to 76%)
* % of children with hypoxemia who received oxygen therapy increased by 52 pp (from 19% to 71%)

**In Ethiopia**, the Federal Ministry of Health has continued implementation of the national Oxygen Scale up Roadmap. By the end of October 2018, at least two health workers from the PIPD and/or NICU have been trained on Oxygen therapy in all hospitals (N=~400) while at least one BME (where they do exist) has been trained on maintenance of Oxygen devices and POx. Intensive support including onsite mentoring is ongoing in 32 selected hospitals in the country, which will be learning centers in Oxygen/POx availability and hypoxemia case management. Through work with FMOH and PFSA, concentrators, cylinder accessories and POx are in a process of procurement through the Revolving Drug Funding mechanism so that facilities will be able to purchase as needed throughout the year. This is in addition to FMOH and RHB’s procurement through the program financing mechanism. As a result of this and several other efforts, functional availability of oxygen has increased from 62% (Dec 2015 baseline) to ~95% (July 2018) in Pediatric IPD of general and referral hospitals on the day of the visit while functional availability of POx has increased from 45 % (Dec 2015 baseline) to ~90% (July 2018) [CHAI & FMOH Data Collection]. Application of pulse oximetry at diagnosis or at any point during admission is at 58%; more than 50% of hypoxemia cases received oxygen therapy (based on documentation in their chart). There is an improvement in this regard as well, compared to baseline, although there is long way to go. Despite the progress at the hospital level, the scale up at the health center level is slow and remains a challenge for both oxygen therapy and POx, although there are efforts underway by FMOH, including a mid-term review workshop of national O2 and POx scale up road map in early December 2018; CHAI and USAID are supporting this meeting and U4O2 partners are welcome to join.

**Assist International**

Thanks to the outstanding partnership with the GE Foundation and Grand Challenges Canada, Assist International is pleased to announce the arrival of two large scale oxygen production plants for Ethiopia. The ability to provide oxygen is the first line intervention to defend and save the life of any patient who is suffering from pneumonia. These two oxygen plants will significantly improve the availability and accessibility of medical oxygen in the Amhara Region of Ethiopia. Assist International has launched a new company in Ethiopia, AI Medical Oxygen Production PLC, and has established a public-private-partnership with the Amhara Regional Health Bureau that is based on new legislation and has become a model for continued sustainability and scaling for the nation. A third oxygen plant is planned for installation the western region Oromia in early 2019. Assist International is also engaged in Nigeria and Tanzania to collaborate with local partners as possible.