

ADVOCATE FOR OXYGEN

WHO



**OXYGEN WITH PULSE
OXIMETRY SAVES
LIVES OF THE MOST
VULNERABLE.^{1,2,3}**

**6.2
MILLION**

mothers and children
die globally each year

due to causes such as pneumonia, premature birth, and obstetric emergencies—all conditions in which undiagnosed hypoxemia (low blood oxygen) is often present, requiring supplemental oxygen.¹⁻²

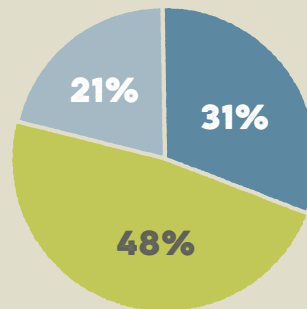
WHAT

COUNTRIES NEED TO ALIGN POLICIES WITH THE WORLD HEALTH ORGANIZATION'S MODEL LIST OF ESSENTIAL MEDICINES (EML) TO PRIORITIZE ACCESS TO OXYGEN THERAPY FOR HYPOXEMIA.⁴

**50 OUT OF
105**

COUNTRIES ONLY LIST OXYGEN FOR ANESTHESIA.

33 DO NOT LIST OXYGEN AT ALL ON THEIR EML.³



Oxygen listing supports non-surgery indications

Oxygen not listed

Oxygen listed only under anesthetics

WHERE

FOR ALL CARE SETTINGS:⁵



PEDIATRIC for children at risk of death from common childhood illnesses, including pneumonia.



NEONATAL for sick and small newborns.



MATERNITY for mothers during complications of pregnancy and childbirth.



EMERGENCY for emergency triage and in ambulances during transfer to higher levels of care.



INTENSIVE for adults with severe and life-threatening illnesses and injuries.



SURGICAL for patients undergoing anesthesia or recovering from surgery.

HOW

ALL OXYGEN PROGRAMS SHOULD INCLUDE:⁶



PULSE OXIMETRY

for diagnosing hypoxemia and monitoring oxygen delivery.



OXYGEN SOURCE

via central pipelines, oxygen cylinders, or concentrators.



DELIVERY DEVICES

including airway interfaces, blenders, and mechanical ventilation equipment.



RESOURCES

for procurement, training, maintenance, and replacement parts.



MANAGEMENT

a more comprehensive approach at the facility, subnational, and national levels.

HOW MUCH

OXYGEN THERAPY CAN BE AS COST-EFFECTIVE AS PNEUMOCOCCAL VACCINES IN REDUCING MORTALITY:⁷⁻⁸

PNEUMOCOCCAL VACCINES:

US\$100

PER DALY AVERTED

OXYGEN SYSTEMS:

US\$50

PER DALY AVERTED

PULSE OXIMETRY:

US\$3

PER DALY AVERTED

OXYGEN IS HO₂PE

SOURCES

1. Liu L, Oza S, Hogan D, Chu Y, Perin J, Zhu J, Lawn JE, Cousens S, Mathers C, Black RE. Global, regional, and national causes of child mortality in 2000–15, an updated systematic analysis with implications for the Sustainable Development Goals. *Lancet*. 2016;388(10063):3027–35. doi: 10.1016/S0140-6736(16)31593-8.
2. Alkema L, Chou D, Hogan D, Zhang S, Moller A-B, et al. Global, regional, and national levels and trends in maternal mortality between 1990 and 2015, with scenario-based projections to 2030: a systematic analysis by the UN Maternal Mortality Estimation Inter-Agency Group. *Lancet*. 2016;387(10017):462–74. doi: 10.1016/S0140-6736(15)00838-7.
3. Essential medicines selection: Oxygen (New indication – hypoxaemia) – EML and EMLc page. World Health Organization website. Available at: http://www.who.int/selection_medicines/committees/expert/21/applications/oxygen/en/. Accessed June 22, 2017.
4. WHO updates Essential Medicines List with new advice on use of antibiotics, and adds medicines for hepatitis C, HIV, tuberculosis and cancer [press release]. Geneva: World Health Organization; June 6, 2017. Available at: <http://www.who.int/medicines/publications/essentialmedicines/en/>
5. PATH [Internet]. Recent global guidelines for oxygen use [cited 2017 May 24]. Seattle, WA: PATH; 2017. Available from: <https://sites.path.org/oxygen-therapy-resources/home/explore-global-guidelines-for-oxygen-use/>
6. Graham H, Tosif S, Gray A, Qazi S, Campbell H, Peel D, McPake B, Duke T. Providing oxygen to children in hospitals: a realist review. *Context*. 2017 Apr 1;95(4). Available at: <http://www.who.int/bulletin/volumes/95/4/16-186676.pdf>.
7. Floyd J, Wu L, Hay Burgess D, Izadnegahdar R, Mukanga D, Ghani AC. Evaluating the impact of pulse oximetry on childhood pneumonia mortality in resource-poor settings. *Nature*. 2015;528(7580):S53–9. doi: 10.1038/nature16043.
8. Duke T, Graham SM, Cherian MN, Ginsberg AS, English M, Howie S, Peel D, Enarson PM, Wilson IH, Were WM; Union Oxygen Systems Working Group. Oxygen is an essential medicine: a call for international action. *Int J Tuberc Lung Dis*. 2010;14(11):1362–8.