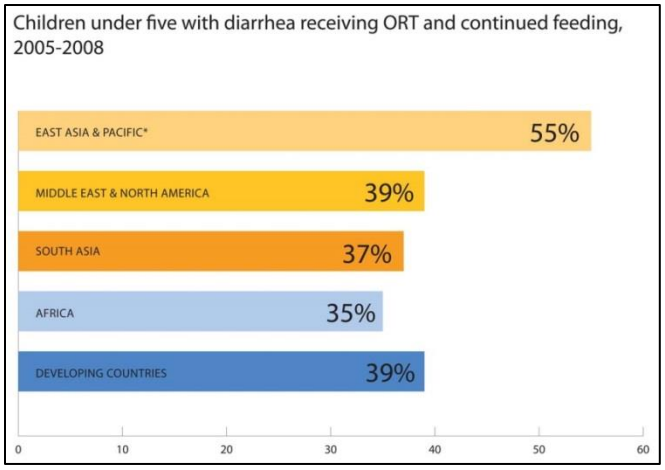
Oral rehydration therapy/oral rehydration solution

BACKGROUND

In the early 1970s scientists discovered that a simple mixture of sugar and electrolyte solutions could help rehydrate people—particularly infants and children—who had lost fluids due to diarrhea. Packets of this oral rehydration solution (ORS) became the cornerstone of global efforts to reduce morbidity and mortality from diarrhea. Over time, diarrheal disease control expanded to include promotion of oral rehydration therapy (ORT), which, in addition to ORS, includes increased fluids through available means such as rice water mixed with salt, breast milk, soups, and cereals. It is estimated that by the 1990s, ORS/ORT was critical in preventing more than one million deaths due to diarrheal disease annually. Today, however, knowledge and application of ORS/ORT has stagnated in some countries, even declining in others.[1]



PROMISE AND POTENTIAL

Packaged as a powder to be added to safe and clean water, ORS can be administered by caregivers in the home, making it particularly useful in resource-poor settings where access to clinical care is limited. If all parents could access

Patiently administered sip-by-sip, ORS restores vital fluids when young children suffer from dehydration caused by severe diarrhea.

and use ORS, diarrhea deaths would drop by 93 percent.[2] But a lack of provider and community knowledge in many developing countries, in addition to persistent access challenges, may be keeping this intervention from realizing its full potential.

An improved ORS formula with lower sodium and glucose makes it more efficacious than ever. This low-osmolarity ORS lowers stool output, reduces vomiting, and minimizes the need for expensive emergency IV therapy.[2] The World Health Organization and UNICEF recommend low-osmolarity ORS and zinc as essential to clinical treatment of acute diarrhea.[3]

INTEGRATING INTERVENTIONS

Along with established interventions like breastfeeding, improved nutrition, safe water and hygiene, as well as more recent tools including zinc treatment and rotavirus vaccines, ORS/ORT is a central element of a package of interventions to control diarrheal disease in developing countries.

[1] Source: UNICEF. *Pneumonia and diarrhoea: Tackling the deadliest diseases for the world's poorest children* . New York:UNICEF;2012.

[2] Munos MK, Fischer Walker CL, Black RE. The effect of oral rehydration and recommended home fluids on diarrhoea mortality. *International Journal of Epidemiology*. 2010;39(suppl1):i75-87.

[3] WHO, Unicef. *Clinical management of acute diarrhoeal disease.* New York: Unicef and WHO; 2004.

Recent years have seen a revitalized commitment to diarrhea control, globally and in many countries. Scaling up use of ORS/ORT must be a central element of updated diarrhea control strategies, and its potential must be emphasized to policymakers, health workers, and the community as one of many proven mechanisms that can achieve a remarkable, sustainable impact on childhood mortality.

For additional information about ORS/ORT and other diarrheal disease control interventions, please visit PATH's diarrheal disease advocacy website at www.defeatDD.org.

Photo: PATH/Tony Karumba

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