

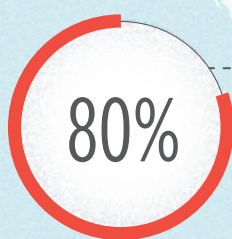
FOCUSING THE FIGHT ON DIARRHEAL DISEASES: New Findings on an Age-Old Killer

Diarrheal diseases are a global killer.

DIARRHEAL DISEASES ARE THE SECOND LEADING CAUSE OF CHILDHOOD MORTALITY, KILLING

800,000 CHILDREN

EACH YEAR. THAT'S MORE THAN AIDS AND MALARIA COMBINED.



OF CHILD DEATHS OCCUR IN **SOUTH ASIA AND SUB-SAHARAN AFRICA**.

Fortunately, GEMS provides critical new data...

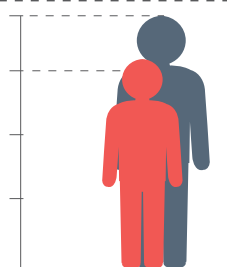
THE GLOBAL ENTERIC MULTICENTER STUDY (GEMS) IS THE LARGEST AND MOST IN-DEPTH STUDY ON DIARRHEAL DISEASES TO DATE. ACROSS SEVEN STUDY SITES IN ASIA AND AFRICA, GEMS FOUND THAT:

APPROXIMATELY **1 IN 5** CHILDREN



UNDER THE AGE OF TWO **SUFFER FROM AN EPISODE OF MODERATE TO SEVERE DIARRHEA (MSD)** EACH YEAR.

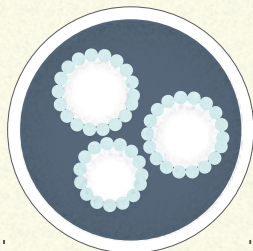
THESE CHILDREN ARE **8.5 TIMES MORE LIKELY TO DIE** WITHIN TWO MONTHS OF HAVING DIARRHEAL DISEASE, USUALLY AFTER THEY LEAVE THE HOSPITAL.



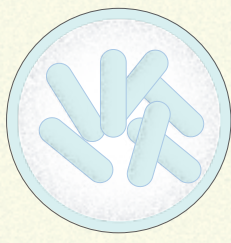
IF THE CHILD SURVIVES, HIS/HER **GROWTH IS LIKELY TO BE STUNTED** COMPARED TO PEERS OVER THE SAME TWO-MONTH PERIOD.

THE GOOD NEWS

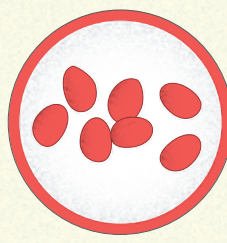
IS THAT DESPITE NUMEROUS POSSIBLE CAUSES, GEMS FOUND THAT **JUST FOUR PATHOGENS** CAUSE THE MAJORITY OF MSD CASES, AND THE LEADING CAUSE IS VACCINE PREVENTABLE:



ROTAVIRUS



SHIGELLA



CRYPTOSPORIDIUM



ST-ETEC
(A TYPE OF E. COLI)



#1 CAUSE OF DIARRHEAL DISEASE AMONG INFANTS. **PREVENTABLE WITH EXISTING VACCINES.**

NOT PREVIOUSLY CONSIDERED A MAJOR PATHOGEN

...and identifies opportunities to act.

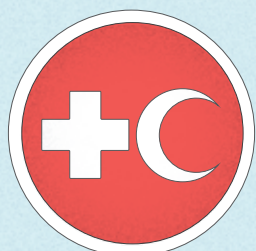
GEMS FINDINGS SUGGEST CLEAR OPPORTUNITIES FOR REDUCING THE GLOBAL BURDEN OF DIARRHEAL DISEASES:



EXPANDING ACCESS TO EFFECTIVE, EXISTING TOOLS - PARTICULARLY **ROTAVIRUS VACCINES** - CAN SAVE LIVES NOW. OTHER IMPORTANT INTERVENTIONS INCLUDE ORAL REHYDRATION SOLUTIONS, ZINC SUPPLEMENTS, CLEAN WATER AND SANITATION.



DEVOTING ADDITIONAL RESEARCH TO DEVELOPING **NEW TOOLS** AND TARGETED INTERVENTIONS AGAINST LEADING PATHOGENS, PARTICULARLY **CRYPTOSPORIDIUM**, CAN SAVE EVEN MORE LIVES IN THE FUTURE.



PROVIDING **FOLLOW-UP CARE** AFTER CHILDREN LEAVE THE HOSPITAL CAN HELP PREVENT GROWTH DELAYS AND DEATH.