

Be Transformed by the Renewing of Your Mind. Romans 12:2

May 30th, 2024



CHIEF MEDICAL OFFICER
SAMARITAN'S PURSE







Outline:

Go and serve: Encouragement and Innovation

- Acts 1:8 Be My Witnesses to the End of the Earth
- -Ephesians 6:7-8 Serve wholeheartedly
- -Local Missions (clinics for indigent care)
- -International Missions (World Medical Mission and DART)
- -Telemedicine/Virtual Health Care

Pharmaceutical Research

- -Antivirals and monoclonal antibodies
- -New antibiotics
- -Vaccine Development

Pharmaceutical Supply chain and Logistics

Prayer: "Prayer is my best medicine"





How Will You Serve? "Pharmaceutical Missions"

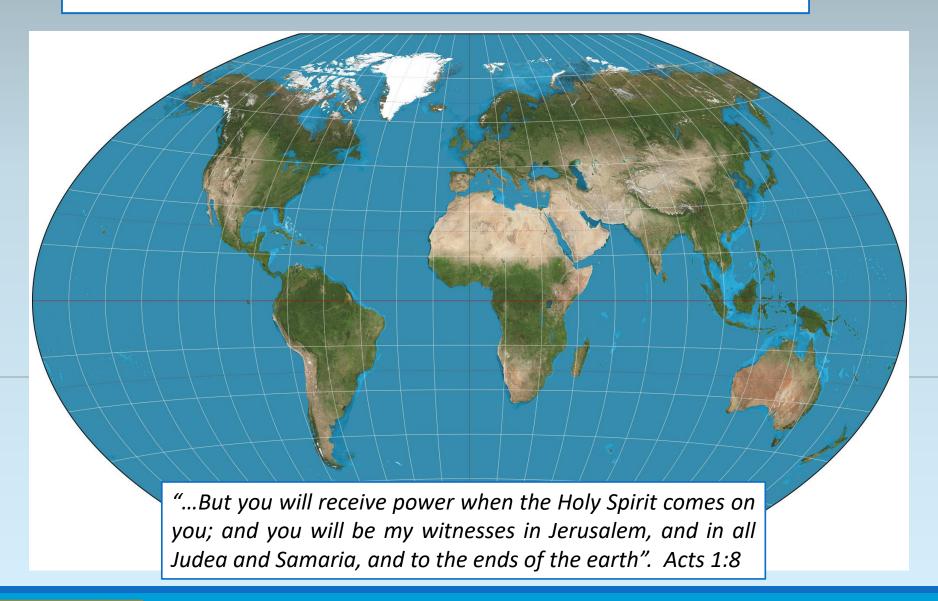
Pharmaceutical missions: ChatGPT Definition:

Pharmaceutical missions typically refer to initiatives or efforts by pharmaceutical companies or humanitarian organizations to provide healthcare services, medications, or medical supplies to underserved or impoverished communities, often in developing countries or areas affected by natural disasters or humanitarian crises. These missions aim to improve access to essential healthcare resources, promote health education, and support public health initiatives in regions where they are needed most.















Serve wholeheartedly, as if you were serving the Lord, not people, because you know the Lord will reward each one for whatever good they do, whether they are slave or free. Ephesians 6: 7-8





Medical Missions at Samaritan's Purse



Pharmacist Dr. Mike Liner is one of many pharmacists that serve on mission at Samaritan's Purse



Setting up the EFH pharmacy in Mosul, Iraq
March, 2017



Local Missions ...



Free Clinic





International Missions: Disaster Response







Haiti Earthquake; January, 2010.



International Missions: Infectious Disease and Epidemics



Cholera Response: November, 2011

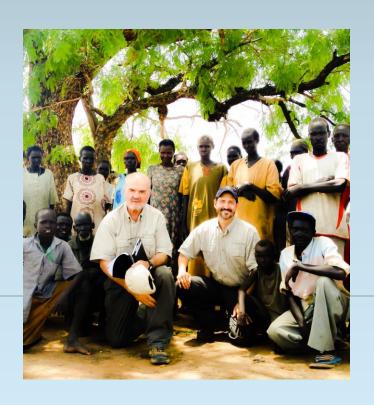
Treatment is very protocol driven

- -Careful IVF rehydration
- -Electrolyte management/ORS
- -Zinc administration
- -Antibiotics (Doxycycline or other)





International Missions: Refugee Camps





Pharmaceutical Responsibilities

- -Measles Vaccination and additional vaccine campaigns
- -Vitamin A administration
- -Therapeutics
- -Malnutrition management





South Sudan Refugee Camps, 2012

Medical Missions: Malnutrition





Severe Acute Malnutrition

- -Severe malnutrition management: Kwashiorkor vs. Marasmus
- -Micronutrient deficiencies
- -Products: F-75 vs. F-100, RUTF, CSB, Plumpy Nut, etc.







Medical Missions: Malnutrition







Disease Process?



Medical Missions: Malnutrition



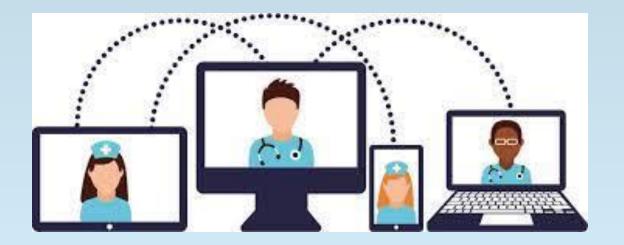




Disease Process? Rickets



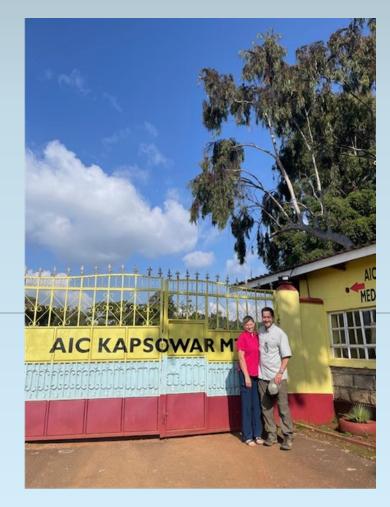
Telemedicine/Virtual Health Care







Telemedicine/Virtual Health Care





Kapsowar Hospital, June, 2023.





Telemedicine/Virtual Health Care







First patient at Samaritan's Purse treated via telemedicine; June, 2023.



Medical Missions: Pharmaceutical Research



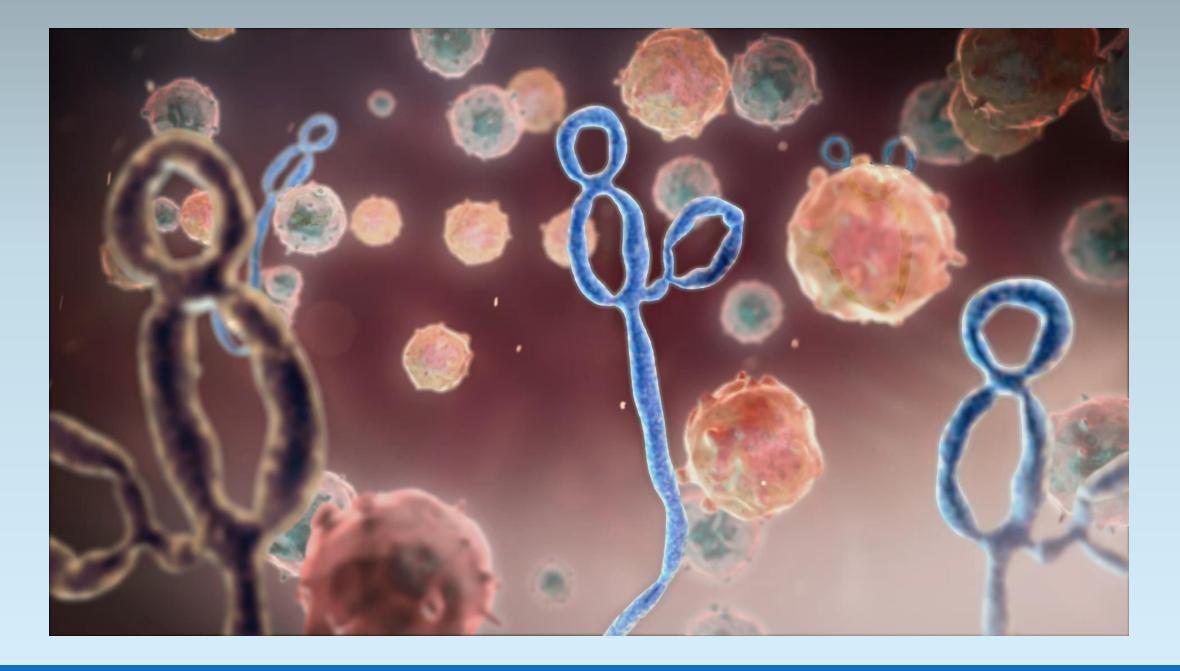
Ebola Epidemic in West Africa, 2014.



First humans to be administered the experimental antiviral ZMapp.







Medical Missions: Pharmaceutical Research





Young boy at Soddo Hospital in Ethiopia (survivor of a Nile River Crocodile attack)



Medical Missions: Pharmaceutical Research

Macrocyclic Peptides

- -No new antibiotics have been introduced for gram-negative bacteria in more than 50 years
- -Dire need to develop new antibiotics to address the global threat of antibiotic resistance.
- -A new antibiotic has the potential to fight drug-resistant infections caused by carbapenem-resistant *Acinetobacter baumannii* (CRAB).
- -CRAB can cause sepsis and pneumonia killing up to 50% of infected patients.
- -Macrocyclic Peptides (MCPs): a novel structural class of antibiotics with broad spectrum activity, low propensity for development of resistance, and a novel mechanism of action. It also has very potent activity against CRAB strains.





International Missions: Pharmaceutical Research



New Cardiothoracic Center: Tenwek Hospital, Kenya







International Missions: Pharmaceutical Research





Will Revolutionize Management of Rheumatic Heart Disease in East Africa and Beyond



International Missions: Pharmaceutical Research





Aspirin in lieu of Anticoagulation for Mechanical Heart Valves in Rheumatic Heart Disease





International Missions: Pharmaceutical Research (Vaccines)

Dengue Vaccine Description:

Dengue vaccine is a vaccine used to prevent dengue fever in humans. Development of dengue vaccines began in the 1920s, but was hindered by the need to create immunity against all four dengue serotypes. As of 2023, there are two commercially available vaccines, sold under the brand names Dengvaxia and Qdenga.









International Missions: Pharmaceutical Research (Vaccines)

Dengue Vaccine Description:

-Qdenga®: Qdenga (two-part recombinant chimeric vaccine) is now being used as a travel vaccine (primarily in Sweden). They recommend for travelers with previous known self-reported (hospitalized or policlinic testing) dengue fever, vaccination is recommended before travel to an endemic country (and are at risk for recurrent or severe Dengue.

-Dengvaxia ®: Dengvaxia can lead to antibody dependent enhancement in dengue naïve patients that subsequently acquire the disease after vaccination. This phenomenon paradoxically can cause more severe dengue in vaccinated patients that subsequently acquire the disease.









International Missions: Pharmaceutical Research (Vaccines)

Additional Vaccines in Development:

- -Malaria: Mosquirix and Amvira
- **-HIV vaccine development:** There is still no effective vaccine against HIV, and is a global health priority (GAVI,
- **-Tuberculosis:** One of the top 10 causes of death worldwide and efforts to develop a vaccine are ongoing.
- **-Ebola:** Ervebo (Ebola Zaire), but dire need for vaccines specific to the other subtypes of Ebola.





International Missions: Pharmaceutical Supply Chain & Logistics

International medical/pharmaceutical supply chain and logistics is quite challenging given multiple factors:

- -remote settings and transportation logistics ("the last mile")
- -stringent and variable regulatory requirements (especially controlled substances)
- -geopolitical tensions
- -specialized storage conditions ("cold chain")





International Missions: Pharmaceutical Supply Chain & Logistics



-When Hamas attacked Israel in early October 2023, Samaritan's Purse immediately deployed a Disaster Assistance Response Team. Thousands of innocent civilians have been displaced and in need of critical relief,



Israel Response



International Missions: Pharmaceutical Supply Chain & Logistics



Franklin Graham visited Israel in mid-November, and was deeply moved by what he saw. Speaking with a widow whose husband was killed while helping patients at a clinic, Franklin prayed for God's hand on her life and the lives of her two young children. Minutes later, he pledged ongoing support and help to the mayor of the region.







International Missions: Pharmaceutical Supply Chain & Logistics



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International Missions: Pharmaceutical Supply Chain & Logistics



The newest 757 cargo jet airlifted 1,000 advanced trauma life support kits (combat application tourniquet, chest tube kit, suture kit, and intubation kit) to help save lives in vulnerable Israeli communities.



757 Samaritan's Purse Cargo Plane



International Missions: Pharmaceutical Supply Chain & Logistics







Samaritan's Purse Logistics Warehouse Wilkesboro, North Carolina

(Developing warehouse pharmaceutical inventory capability)



"Prayer is our Best Medicine"

- ...Pray for each other so that you may be healed. The prayer of a righteous person is powerful and effective. **James 5:16**
- Therefore I tell you, whatever you ask in prayer, believe that you have received it, and it will be yours. Mark 11:24
- Ask and it will be given to you, seek and you will find; knock and the door will be opened to you. For everyone who asks receives; the one who seeks finds; and to the one who knocks, the door will be opened.
 Matthew 7: 7-8







Samaritan's Purse Mission Statement:

Samaritan's Purse goes to the aid of the world's poor, sick, and suffering, helping meet needs of people who are victims of war, poverty, natural disasters, disease, and famine with the purpose of sharing God's love through His Son, Jesus Christ.







Prescription for Renewal Medical Missions Conference

August 15-18, 2024

Renaissance Orlando at SeaWorld Orlando, Florida









Thank You!



