



**CTIS** | A HEALTH  
INFORMATICS  
COMPANY  
Proven Solutions. Improved Results.



# Achieving Significant Healthcare Improvement



## IT'S ABOUT.....

Collaboration  
Sustainable Healthcare  
Infectious Diseases  
Informatics  
Connectivity

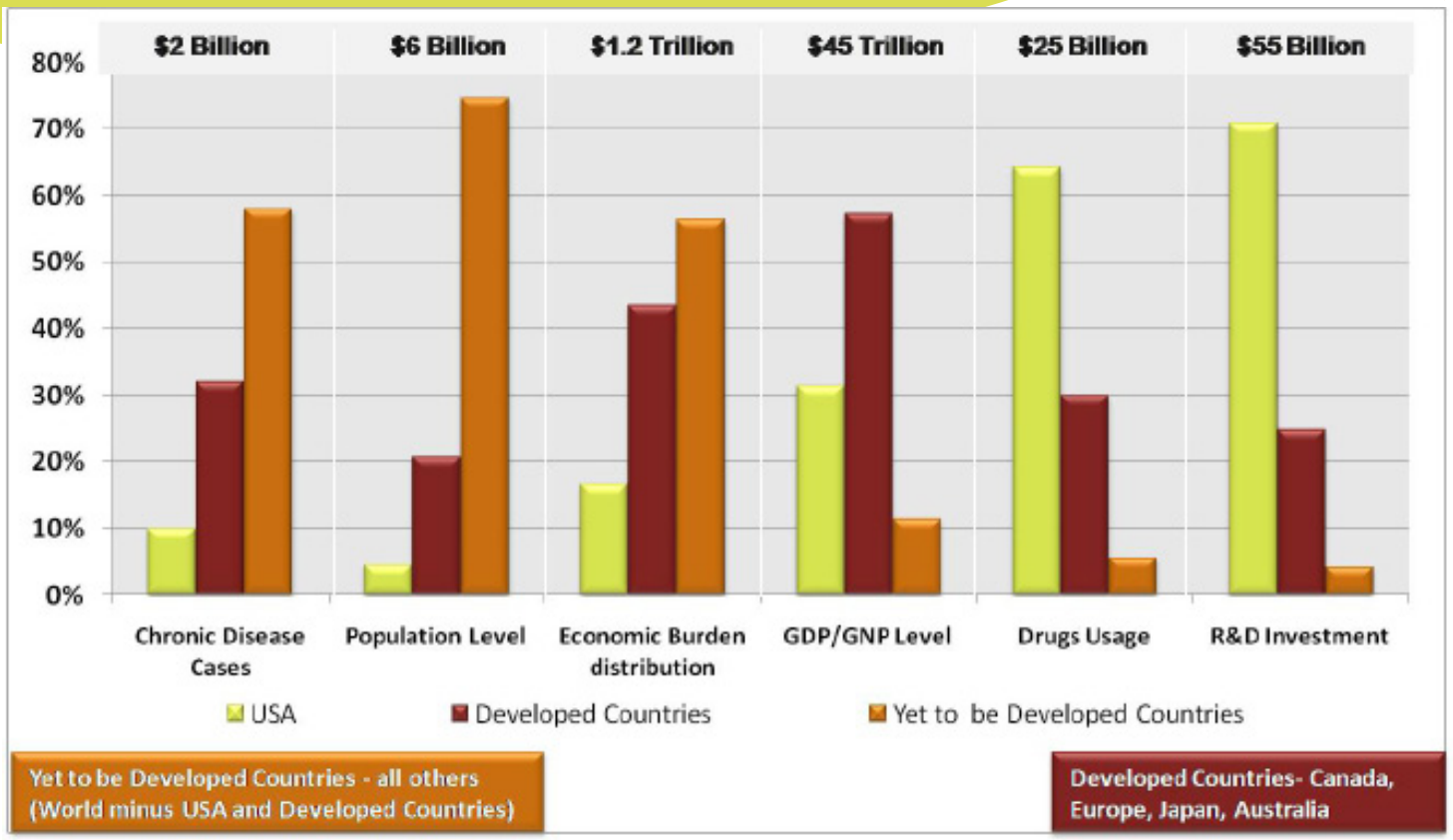
Innovation  
Quality of Care  
Children Care  
Treatment Outcome  
Health Equity

Maternal Care  
Chronic Diseases  
Individualized Medicine  
Sustainable Results  
Health Disparity

**Our mission** is to harness the power of information technology to deliver significant health improvements in collaboration with indigenous leaders worldwide that assure sustainable results.

**Our vision** is for a population based healthcare program focusing particularly on women and children in the developing countries as they hold the greatest promise for enduring success.

# Global Health Needs



Imbalance of available resources and population: Comparison of Chronic Disease Cases, Population Level, Economic Burden Distribution, GDP Level, Drug Usage, and R&D Investments.

The U.S. Global Health Initiative (GHI) as developed by USAID, offers a comprehensive whole-of-government approach. It promotes a new business model to deliver its dual objectives of achieving significant health improvements and creating an effective, efficient and country-led platform for the sustainable delivery of essential health care and public health programs.

In order to improve the health outcome in the developing world, there is an immediate need to:

- Address issues related to Infectious Diseases, Children, Maternal and Elder care
- Provide coordinated care to serve the broader needs of the population
- Create sustainable health care delivery systems by the countries themselves

In order to accomplish the define needs we must work **family by family** (by implementing a woman- and girl-centered approach), **locality by locality** (provide access to services that meet their major health care needs in one location), **country by country** (by leveraging combined resources of multilateral organizations) in **building a stronger, healthier world**.

**Management of Global Health** is a fundamental requirement in order to effectively deploy our limited resources and provide harmonized care to the larger population in order to strengthen health systems worldwide and reduce inequities.



CTIS has experience in the many areas and is well positioned to assist and implement their solutions in the following key areas of the Global Health Initiative

Global Health Initiative	CTIS Experience
<p>Do more of what works: Identify, integrate, scale, and evaluate proven approaches</p>	<ul style="list-style-type: none"> <li>• Deployed <b>health information technology</b> in the areas of prevention, surveillance, clinical trials and including digital dashboards to many developing countries,</li> </ul>
<p>Build upon existing platforms to foster stronger systems and sustainable results</p>	<ul style="list-style-type: none"> <li>• Assisting local organizations such as Arogya Foundation and projects such as <b>Division of Cancer Epidemiology and Genetics Pilot Study</b>, by providing IT systems and web-based portals.</li> </ul>
<p>Innovate for results: Identify, implement, and evaluate new approaches</p>	<ul style="list-style-type: none"> <li>• Developed and installed the <b>Patient Management and Monitoring system</b> for the PEPFAR initiative in 14 hospitals in Nigeria.</li> <li>• Developed an interoperable <b>Personal Health Record</b> software solution called <b>iMHealth™</b> for patient outcome data and health management</li> </ul>
<p>Collaborate for impact: Improve coordination across donors and build local capacity</p>	<ul style="list-style-type: none"> <li>• Serves as an IT partner to support NGOs in conjunction with local organizations.</li> <li>• Developed a worldwide portal and clinical trial systems.</li> <li>• Demonstrated the importance of building worldwide networks to increase capacity and resources in over 25 developing countries.</li> </ul>

CTIS has over 20 years of experience in more than 30 developing countries working with USAID and other such organizations to deliver the benefits of health information technology and improve health outcomes across the world.



Provide Greater Access to Data  
Connect Patients and Physicians  
Improve Quality of Care



In order to ensure resources are maximized, the global health community needs a solution which will provide best practices in health promotion, the best quality and impact. The central archetype to this solution is the use of Information Technology (IT), in creating **Health Information Exchange (HIE)** capability, and building a connected **Digital Health Community**. This facilitates information exchange and interoperability between patients, providers, ambulatory care, labs, hospitals, pharmacies, diagnostics centers and payers while increasing the capacity for continuity of care.

**Health Information Exchange** is a necessary building block where Health Research, Healthcare, Public Health, and Health Education converge to build a Digital Health Community, that can meaningfully harness the power of Health Information Technology (HIT) to facilitate the future of healthcare in communities with the highest Return on Investment (ROI) and patient outcome. The power of Information Technology (IT) enables stakeholders to seamlessly deliver health information across a wide range of information sources and users.

A **Digital Health Community** is a knowledge health community that harnesses the power of information technology, automation and the internet to digitally connect key stakeholders with the highest return on investment. This community is capable of exchanging necessary information, on demand, across the healthcare spectrum of prevention from managing an acute attack, to post attack management, to secondary prevention all to better serve the patient's needs of better treatment, outcome, access, education, quality, and continuity of care.



CTIS believes that Health Information Technology can be a true enabler in the connectivity, collaboration and convergence of Health Care, Health Research, Health Education and Public Health stakeholders. To deliver Global Health Services, CTIS focuses on providing Information Technology services and works with local and global non-governmental organizations (NGOs) partners.

One such partner is INCTR who has a presence in over 25 developing countries and they work with WHO, the International Atomic Energy Agency (IAEA) and the National Cancer Institute, USA, (NCI). Some creative approaches CTIS has implemented with its partners to overcome the limitations are:

### Develop Global Portals

A Global Portal facilitates connectivity, communication and information sharing processes that can help to reduce information and decision-making fragmentation on one side, while reducing research redundancy and promoting Communities of Practice on the other. This will act to increase the productivity of stakeholders, the efficiency of their processes and the effectiveness of the organizations that they support.

### Develop a Strategic Model

Through a hub and spoke model, develop a central facility with connected local clinics. This will establish a connection with community centers in remote locations through a combination of internet, mobile vans, satellite phone and networking capability.

### Build a Digital Health Community

Through the use of internet, development of portals, and the development of a platform that supports mobile device applications will enable reach to the population and the patients.

### Foster Collaboration

Online and community portal mechanism can foster collaboration for public health and clinical research between the U.S. universities and the yet to be developed countries.

### Leverage Technologies

Take the banking industry, for example, and the technologies used such as dark fiber and ATM facilities. By leveraging these new technologies and connectivity mechanisms, even if developed for other industries, all global destinations can be reached.

### Develop Computing Devices

The development of computing devices, those that are already in place for less than \$100 would allow local healthcare workers to collect data and be a point of care interface.

### Conduct Online Training

Through online training, senior healthcare professionals can educate and provide the necessary outreach and first responder intervention mechanism to other healthcare workers in remote locations.

# Global Presence in Over 30 Countries



CTIS has engaged in many Global Health initiatives resulting in measureable outcomes and significant impact worldwide.

## Africa and Near East

- PEPFAR - AIDS Care and Treatment in Nigeria (ACTION), Global HIV AIDS Initiative Nigeria (GHAIN)
- Network for Surveillance of Pneumococcal Disease Project, Eastern Africa
- World Bank - Analysis of the Health Care Sector for the Government of Uganda and Kenya
- King Hussein Cancer Center, Jordan
- Health and Environmental Impact Initiatives in Saudi Arabia, Morocco, Egypt and Tunisia

## Bangladesh

- International Centre for Diarrheal Disease Research Project, Bangladesh

## Europe

- INCTR Clinical Trials Database -Acute Lymphoblastic Leukemia, Belgium and India
- Regional Competitiveness Initiative, Europe and Eurasia

## Latin America

- Preventorium, Lima, Peru

## India

- Arogya Foundation
- Chronic Care Institute, Gujarat
- Division of Cancer Epidemiology and Genetics Pilot Study, Trivandrum, Delhi, Mumbai
- Health Related Information Dissemination Amongst Youth & Student Health Action Network
- Himachal Pradesh Cancer Screening Study, Shimla, Himachal Pradesh
- Indian Health Information Network Development, New Delhi
- Indo-US Advanced Networking Education Program on HIV/AIDS (Internet2), Pune, New Delhi
- Initiative for Cardiovascular Health, New Delhi
- National AIDS Research Institute, Pune, New Delhi
- National Knowledge Commission, New Delhi
- The Art of Living Foundation, Bangalore
- The Center for Clinical Global Health Education, Johns Hopkins University
- The Ekal Vidyalaya Foundation, New Delhi



## About CTIS

CTIS has over 20 years of proven history in providing total informatics solutions to the health sector. CTIS provides innovative, appropriate, timely, and quality information technology solutions to health systems, health professionals, research organizations, and payors to support their goals in serving patients. To address this need, CTIS' informatics solutions converge health sciences, information technology, process reengineering, total quality management, and organizational effectiveness in order to optimize the capture, storage, and use of information in health and biomedical sciences.

CTIS is also building needed personal information solutions that serve patient directly in dealing with their healthcare providers. CTIS' leadership is at the forefront of national discussions that are defining the next generation of biomedical, clinical research, translational research, personalized medicine, comparative effectiveness research, performance driven healthcare, health disparities, elder care, and chronic disease management programs that will not only provide better patient care, but also meet the cost management goals of the health industry.