THE BENEFITS OF MOBILE-HEALTH TECHNOLOGY
Mobile tech’s impact on medicine will be more profound than the pc’s impact on mainframe computing. Some of the important features are listed below:
• Moving the Clinic to the Patient for Many Clinical Functions: Mental, Physical, Sociological
• Access to Large Population, Family Histories, and Lots of Data
• Enables “Community Level Healthcare” and Holistic Health through Local Support Systems
• Enables Automation to Transition from “Crisis-Care” to “Preventive-Care
• Lower Facility Expense
• Higher Physician Productivity
• Less Time and Cost to the Patient
• Higher Frequency of Care, Exams, and Patient Communications

MOBILE TECH & PREVENTIVE HEALTHCARE:
• Intelligent Data Acquisition Systems
• Genomic Data
• Current, Accurate, Electronic Health Records: Medical Data, Family Data, Patient Behavior, Lifestyle, Environment, etc.
  • AI driven, Clinical Decision Support Systems
  • Knowledge Base

THE KNOWLEDGE BASE
• Continuous Improvement & Review – Peer and AI
• Litigation History and Avoidance
• Comprehensive: Genomics, Drugs, Treatment, Symptoms, Behaviors, Family Data, Environment., etc.
• Technically Layered Search for the end-users:
  • Consumer; Doctor; Researcher.

SYSTEM STRATEGY:
• Translational Bioinformatics, fueled by Genomics, Patient Data, Family Histories, and Environmental Data
• Automation Intensive – Physician Empowering
• Artificial Intelligence Enabled
• Pervasive, Advanced, Quality Control
• Continuous Improvement at all Levels
• Cloud Based
• Ultra-Secure

COST CONTROL ELEMENTS:
• Low-Cost Systems, with “Zero Defect” Quality
• Minimize Skilled Personnel
• High-Quality Outcomes
• Reduce Time and Cost for Patient

* Dr. James S. Toreson, Co-Founder, Robo Clinics, Nevada, USA
• Timely, Efficient, and Accurate Care
• Patient Involvement: Knowledge, Life Style, Behavior, & Family History
• Patient Experience and Satisfaction

**SYSTEM DEVELOPMENT:**
• Disease Assessment
• Set Priorities Based on “80-20 Rule”: the 20% of Diseases that Cause 80% of Cost
• Disease Control that is Quick to Deploy
• Other Parameters e.g., Contagious diseases, Epidemics, etc.

**HOLISTIC HEALTH**
• Integration and Optimization of Psychological, Physical & Social health.

**MENTAL HEALTH**
• Brain (Mental) and Body Physiology are Connected
• “Distributed Treatment” through Patient Empowerment: Education, Communication, Meditation, Music, Social, etc.

**GENOMICS - PREDICTIVE:**
• Currently Constrained to Single Gene (Monogenic or “Mendelian”) Disorders
• Complex Diseases Caused by Combinations of Genetic Information (Polygenic)
• Complexity of Genome Requires Massive Computing Power, Sophisticated Algorithms, and Artificial Intelligence (AI)

**TRANSLATIONAL BIOINFORMATICS:**
Translational bioinformatics = informatics methods that link biological entities (genes, proteins, small molecules) to clinical entities (diseases, symptoms, drugs)--or vice versa. (Professor Russ B. Altman, MD, PhD Stanford University)

**AN EXAMPLE OF AI SOFTWARE:**
• “eXtasy” - Software Breakthrough (Oct 2013)
• Advanced artificial intelligence Based
• Detection of Disease-Causing Mutations
• 20X Improvement in Accuracy
• Developed at KU Leuven in Belgium

**CONCLUSION**
Quantifiable Data from Mobile Tech is Critical for Advancing:
• Translational Bioinformatics
• Genomics
• Epidemiology
• Health Care to the Masses

_Evaluation is Vital -
“If You Can’t Measure It, You Can’t Improve It”_ - Lord Kelvin