

RUTGERS

Robert Wood Johnson
Medical School

“Medical Affairs: Introduction & Overview”

Graduate School PhD Workshop

Rutgers-Robert Wood Johnson Medical School

Dean’s Conference Room

September 11, 2024

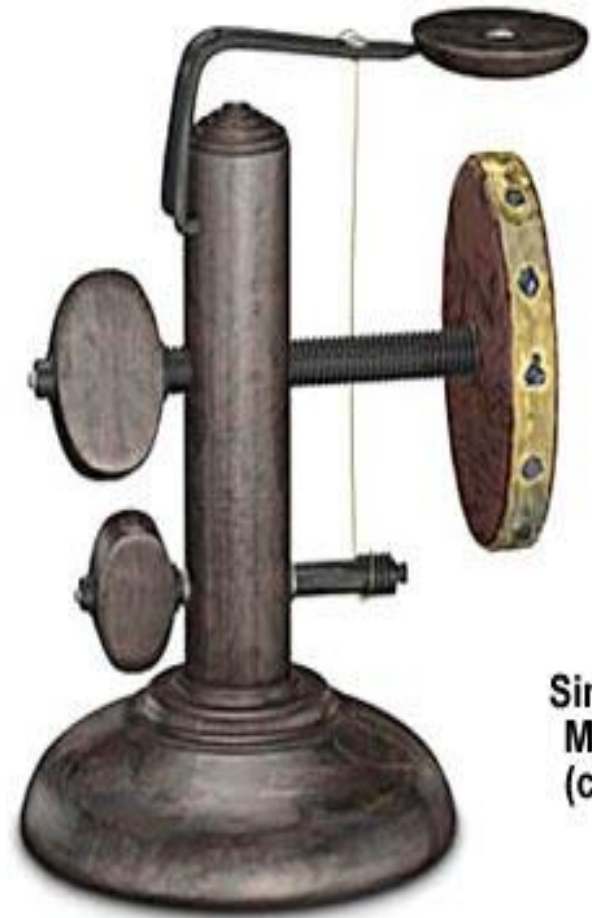
Paul F. Weber, MD, RPh, MBA

Associate Dean- Continuing Medical Education

Program Director, Distinction in Medical Innovation & Entrepreneurship

Thread Director, Health Systems Science Curriculum

Microscopes



**Simple Italian
Microscope
(circa 1686)**

Workshop Outline & Schedule

- ***Medical Affairs (MA): An Overview (25 mins)***
- ***Transition to Team Formation (5 mins)***
- ***Case Simulation--Product Launch (30 mins)***
- ***Group Presentations (10 mins per team)***

Context

For the First time in history:

- *Six* generations living together in the world
- *Four* generations together in the workplace (to mirror Academia)!

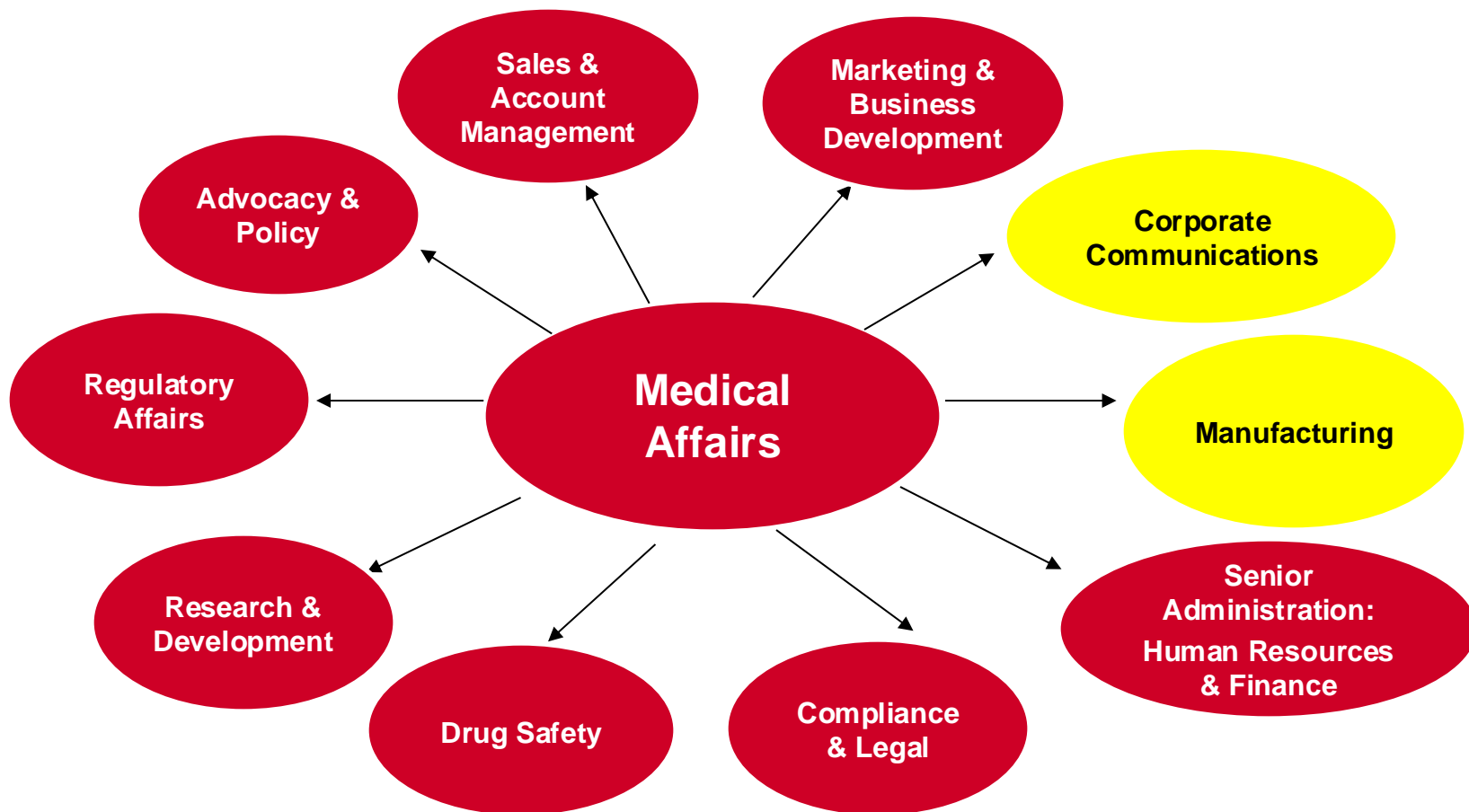
Medical Affairs Defined

*A dynamic and rapidly growing area of the Biotech, Pharmaceutical, and Device Industries that focuses on **research, knowledge, and education** and provides **primary scientific and medical support** for a company's development pipeline and marketed products*

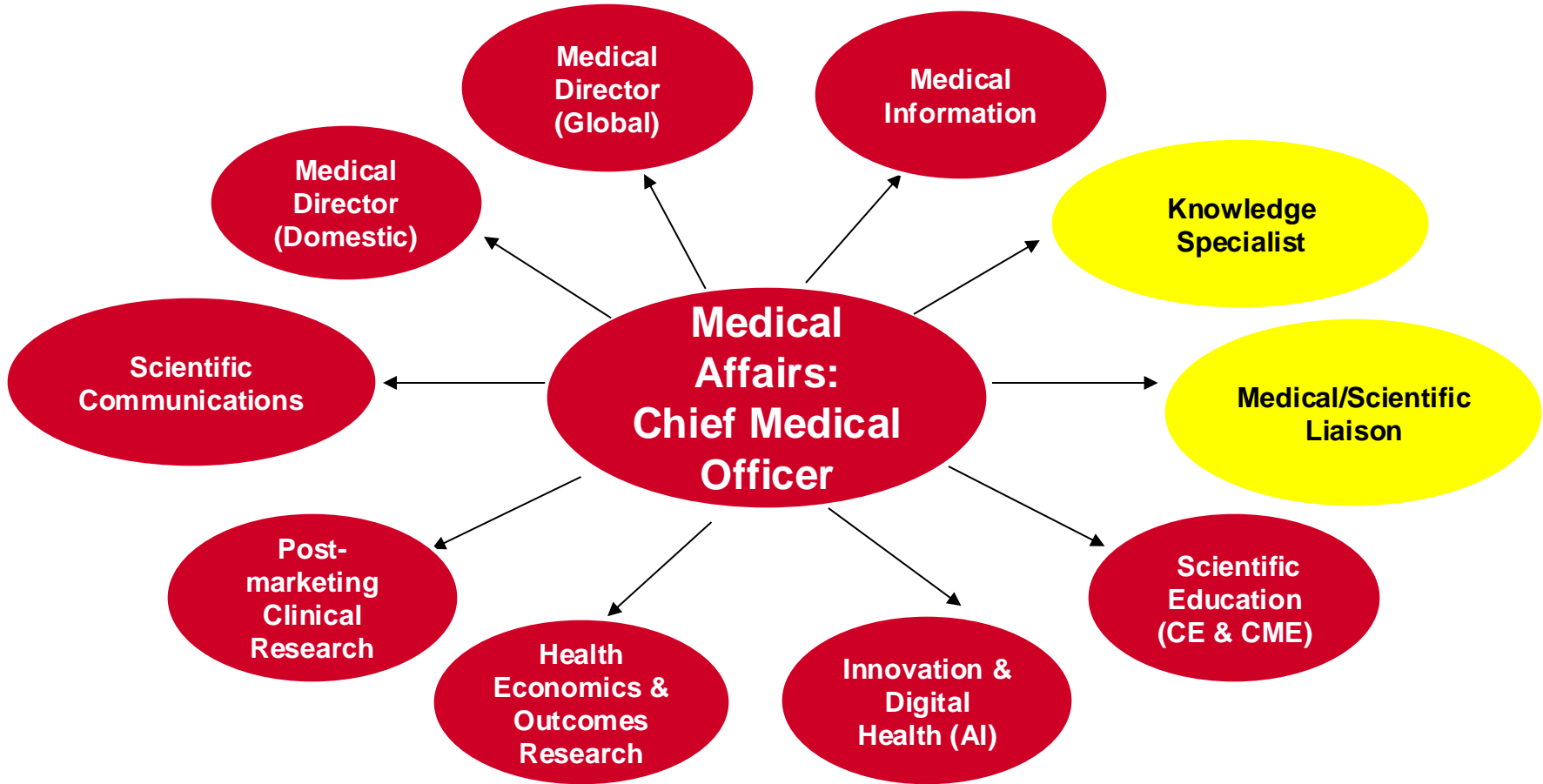
Medical Affairs Personnel & Credentials

- *Most commonly* with Scientific Backgrounds
- Increasingly with Business, Public Health, Health Policy, and **Computer Science** background or experience
- Master Degrees
- *Doctoral Degrees* (**PhD**, PharmD, MD)-usual prerequisite for MSL role
- Board Certification in Medical Affairs-established less than a decade ago

Medical Affairs: Internal Partners



Medical Affairs: Functions



Digital Health (“EMT”)

– eHealth

- *Electronic Records (EHRs/EMRs)—(EPIC at Rutgers Health & RWJBarnabas Health)*
- *Decision Support*
- ***Artificial (Augmented) Intelligence***
- *Patient Portals*
- *Research applications/eCROs*

– mHealth

- *Apps*
- *Sensors*
- *Wearables*
- *Point of Care Devices*
- *“Hospital at Home”*

– tHealth

- *Telehealth (Project ECHO)*
- ***NJ law effective July 1, 2017***
- *VA*

reSET© App

- *First FDA approved clinical app* (August 2017)
- Used in Addiction Medicine
- A tool that augments medications and therapy to extend patient sobriety
- Launched by Pear Therapeutics

Wearables



SOCIAL MEDIA & MEDICINE

Trends

- *X (formerly Twitter)* and *LinkedIn* are being utilized most frequently at major congresses for immediate dissemination of landmark data and press conferences
- *Mobile* is the most rapidly growing digital platform (*but print is still valuable!*)

Trends (cont'd)

Technology & Social Media will be utilized *more prominently* for solutions (health equity & translator services):

- Augmented Reality, Mixed, & Virtual Reality
- **Artificial (Augmented) Intelligence especially in Research**
- Video
- *Audio enabled*
- Internet of Things (Hospital at Home)
- Point of Care
- 6G
- WiGig
- Tileable Screens
- Blockchain

One Health--Definition & NJ Leadership

- Worldwide strategy for expanding interdisciplinary collaborations & communications in all aspects of health care for:

- *Humans*
- *Animals*
- *Environment*



- The synergism achieved will advance health care for the 21st century *and beyond*
- With proper implementation, it will help protect and save untold millions of lives in our present and future generations
- NJ is the first state with One Health Task Force (NJ A1992)**
 - <http://www.onehealthinitiative.com/about.php>

Planetary Health Initiative

- A new multi-disciplinary global effort
- Aims to identify solutions to health risks posed by our poor stewardship of our planet
- Seeks to influence both international & national approaches to health through:
 - Advocacy
 - Partnership
 - Awareness raising
- Plans to create *policy change* that better balances human advancement with environmental & biodiversity sustainability

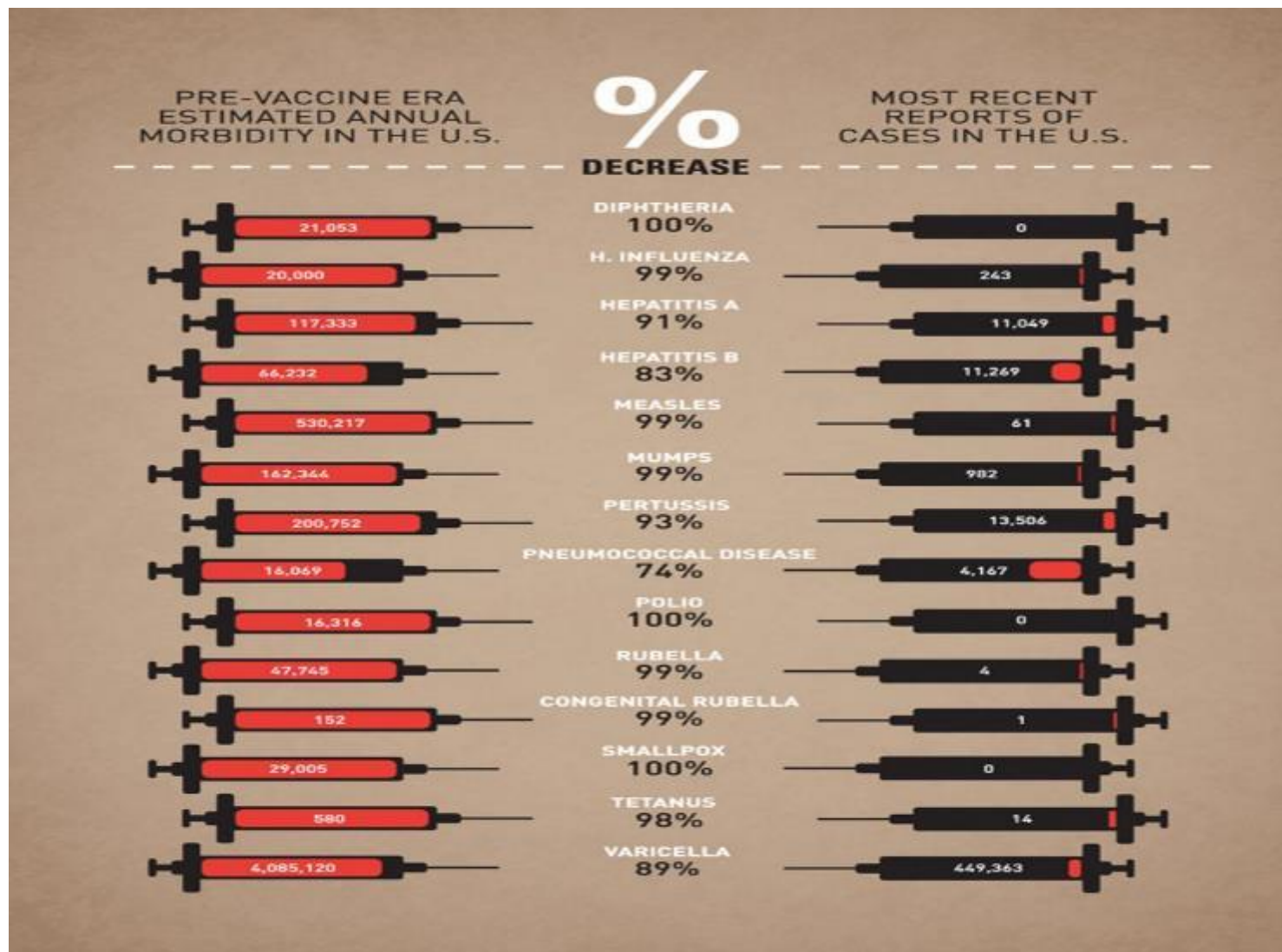


"May there never develop in me the notion that my education is complete but give me the strength and leisure and zeal continually to enlarge my knowledge."

- Maimonides -



Public Health Impact of Vaccines (Pre-COVID)



Post-COVID Expansion in Vaccines

- COVID-19 base immunization + boosters (latest approved September 2024)
- Respiratory Syncytial Virus (RSV)
- Expanded Pneumococcal variant coverage
- Updated Varicella-Zoster “Shingles”
- Active research in cancer vaccines