

# Health Care Without Walls: Implications for Nursing

Presentation by Susan Dentzer  
President and CEO, NEHI  
To the National Advisory Council on Nurse Education and Practice  
January 29, 2018

# This Presentation At A Glance

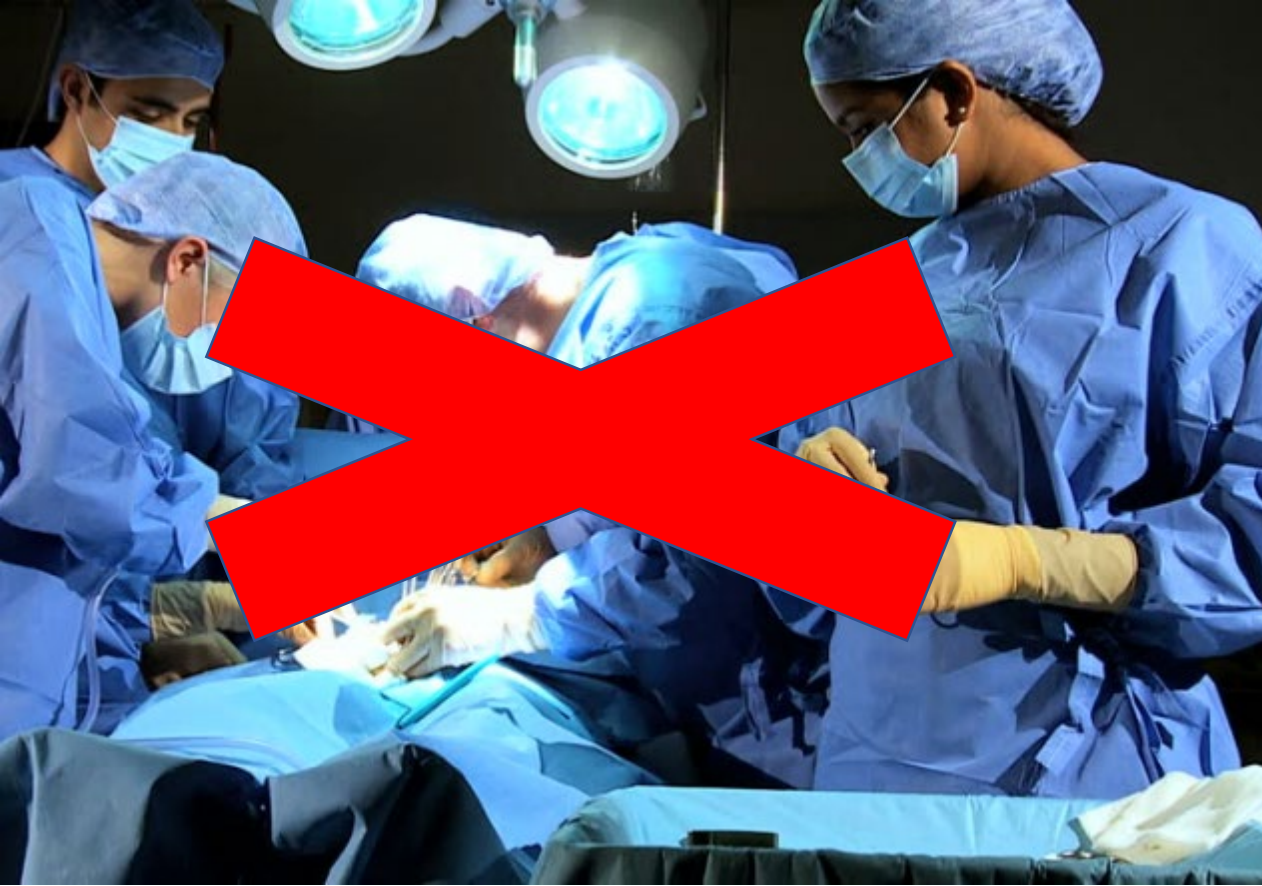
- Health Care  
Without Walls:  
The Vision
- Background on the  
Initiative
- Summary  
recommendations
- Implications for  
nursing and nursing  
education



# In Considering Innovation in Health Care, We Asked – Again – The Big Questions

A photograph of a family of four sitting in a waiting room. From left to right: a man with glasses in a white shirt, a man in a white shirt holding a newspaper, a woman in a blue shirt, and a young girl in a pink shirt. They are all looking towards the left. The background is a blurred waiting area with other people and medical equipment.

What if, instead of a “sick care”  
system, we had a health care  
and health-inducing system  
that went to people – rather  
than people going to it?



## The Big Questions:

For health care that mainly involves exchanges of information – not the laying on of hands – why isn't more of it done virtually today?

# Aspects of Nursing Already Are “Virtual”

- “Nurse on call” or advice lines
- Other patient counseling
- Care coordination
- Obtaining prior authorizations
- Running other interference with payers
- Using electronic health records
- And more

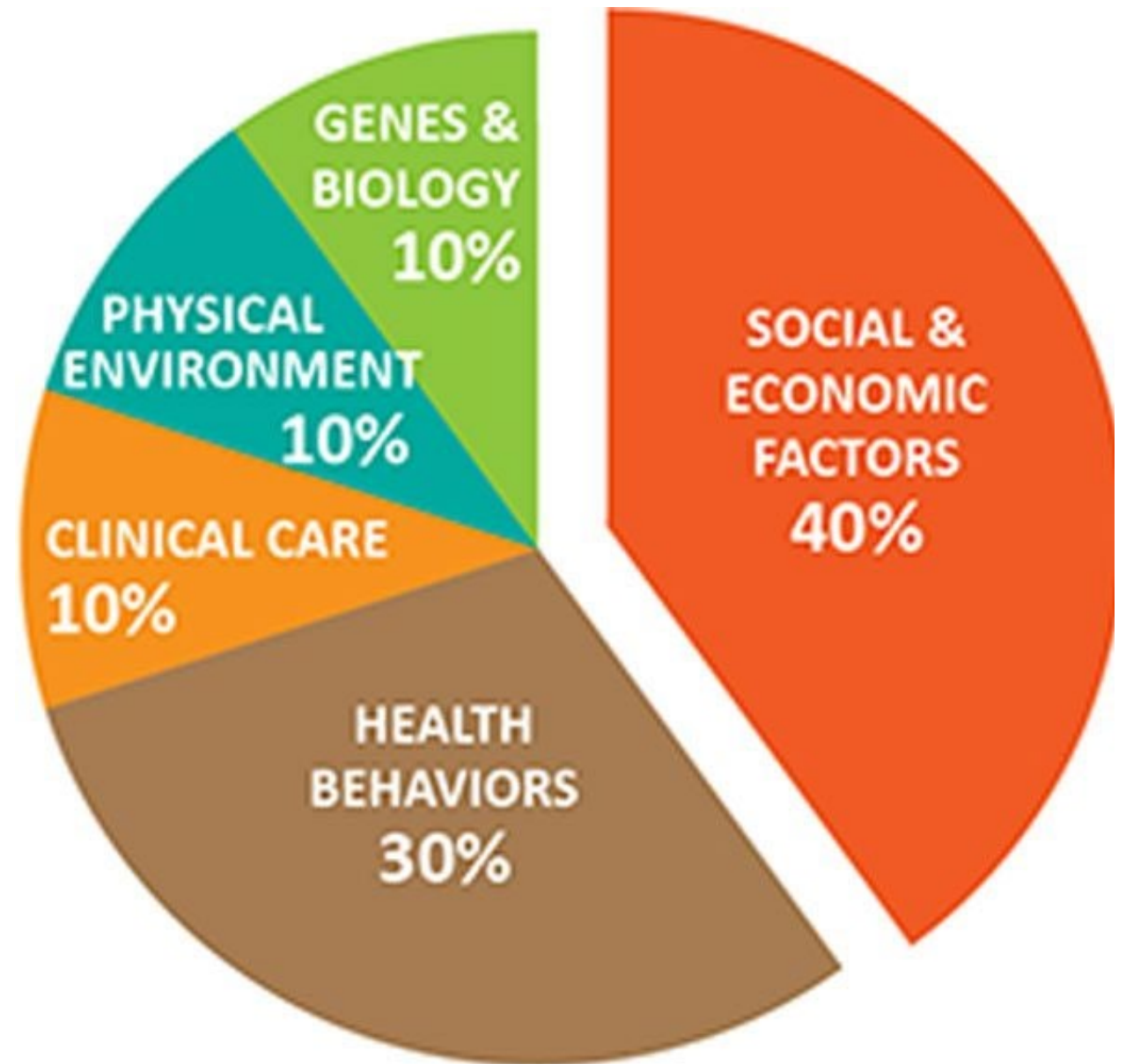


# Aspects of Nursing and Other Health Professions That Demand Getting Outside the Walls

- The United States: A far less healthy nation than many of our peer countries
- Both health and health care is distributed unequally, with large disparities beginning at birth that become magnified over time
- The poor and declining health status of many Americans underscores the importance of addressing the social determinants of health.
- As it stands, we as a nation address poor health only when it ends up as “sick care” in our health care system, which now faces unsustainable costs

# What Drives Our Health?

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# What Drives Our Health?

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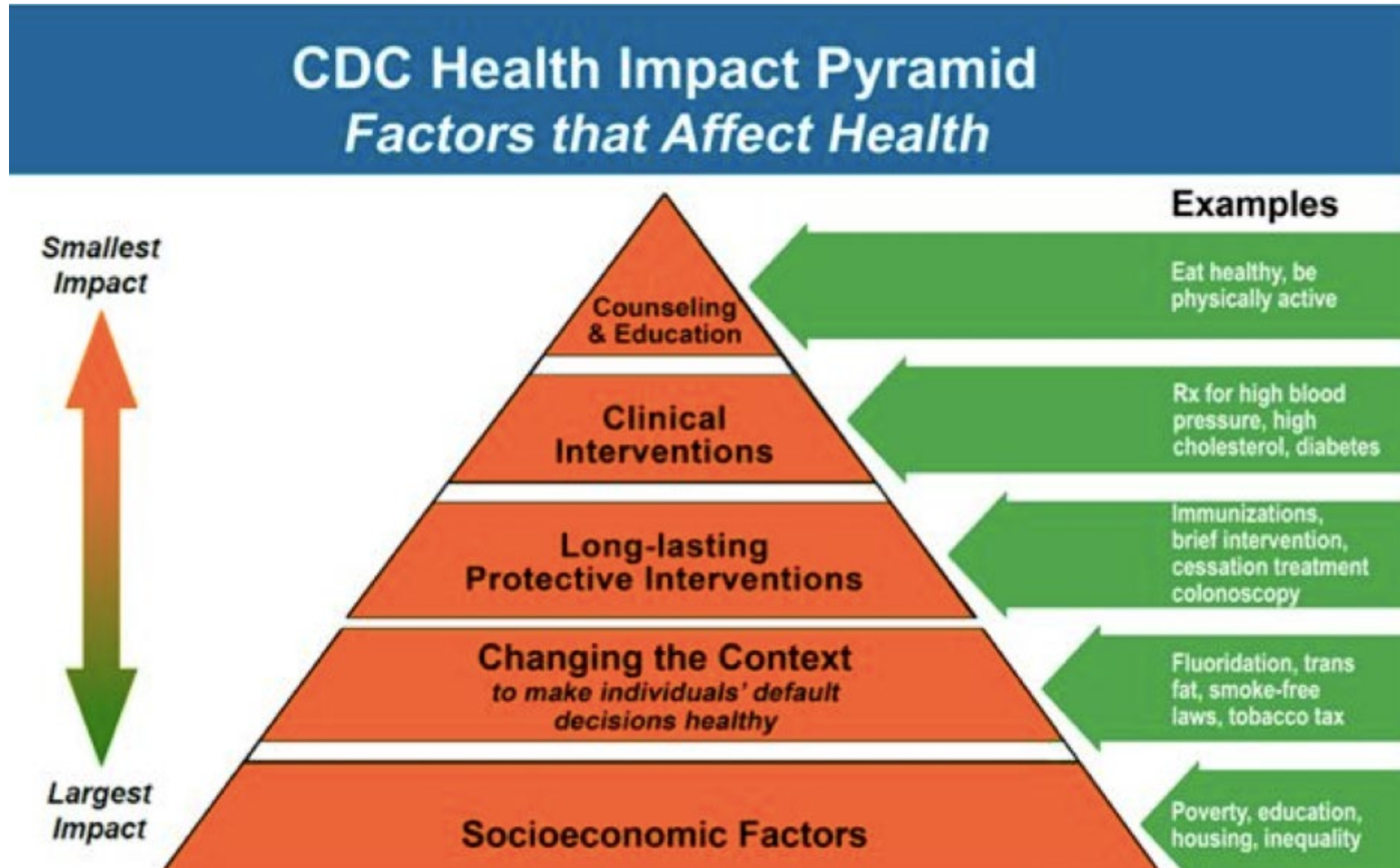




## Ten Tips for Better Health – The Social Determinants Version

- 1 Don't be poor. If you can, stop. If you can't try not to be poor for too long.
- 2 Don't have poor parents.
- 3 Own a car – it will mean that you have money, and you can drive out of the poor neighborhood where you live.
- 4 Also use that car if you live in a food desert and want to leave the neighborhood to get to know fruits & veggies
- 5 Don't live in damp, low quality housing.
- 6 Don't work in a stressful, low-paid job.
- 7 Practice not losing your job and becoming jobless.
- 8 Be able to travel, relax, and de-stress.
- 9 If you're jobless, sick, or disabled, claim all the benefits to which you're entitled.
- 10 Don't live next to a busy major road or polluting factory, or have lead in your water as in Flint, Michigan.

# Influencing Health





What If We Wanted As a Nation to Advance Health?



Why inside the walls when we should be increasingly focused outside the walls?



Why do we have “Star Wars” medicine on a  
“Flintstones” delivery platform?

Shouldn't we at least advance to "The Jetsons?" (1962)



# *Dr. Kenneth Bird, 73; Used TV for Diagnosis*

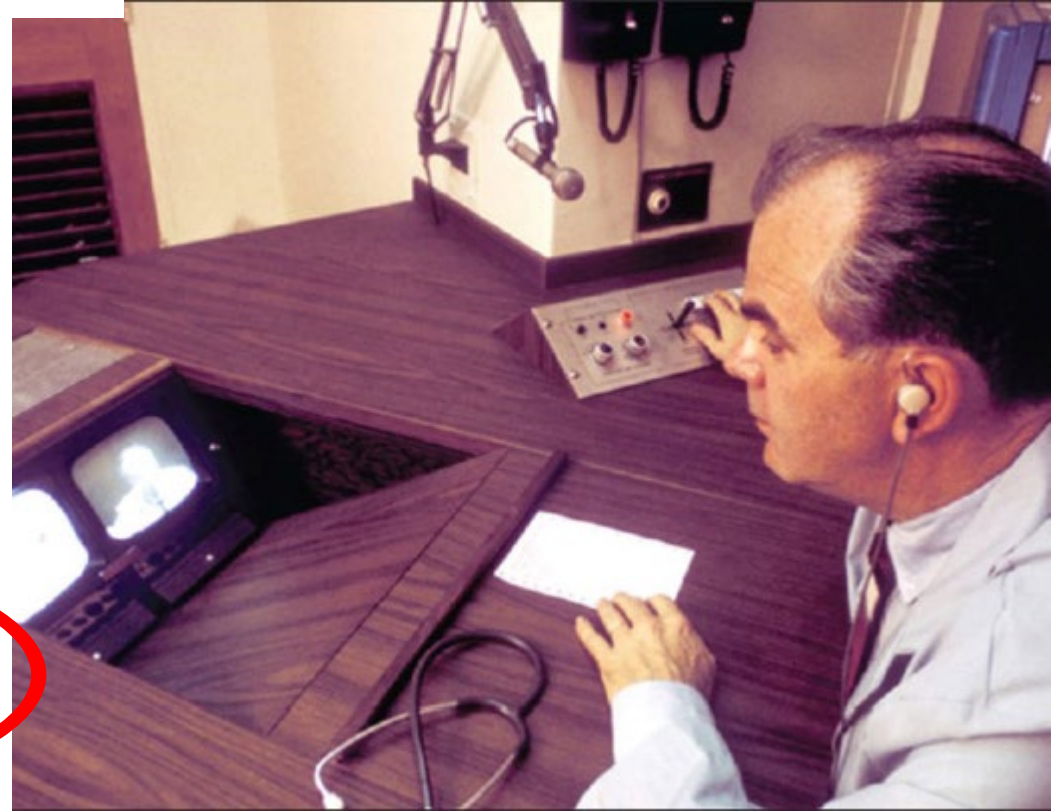
FEB. 16, 1991

Dr. Kenneth D. Bird, an internist and pulmonary specialist who developed a method of examining patients by two-way, interactive television, died Wednesday at the Lahey Clinic in Burlington, Mass. He was 73 years old and lived in Lexington, Mass.

He died of heart failure, said a spokesman for Massachusetts General Hospital, where Dr. Bird was affiliated for nearly four decades.

In 1968 Dr. Bird founded and directed the first "telemedicine" system, which linked a medical station at Boston's Logan Airport with doctors at the hospital who supplied remote diagnosis, treatment and medical image transmission. In 1970 a second link was opened.

The telemedicine system, a precursor of today's high-technology conferences that links doctors around the world electronically, was abandoned in the 1970's.

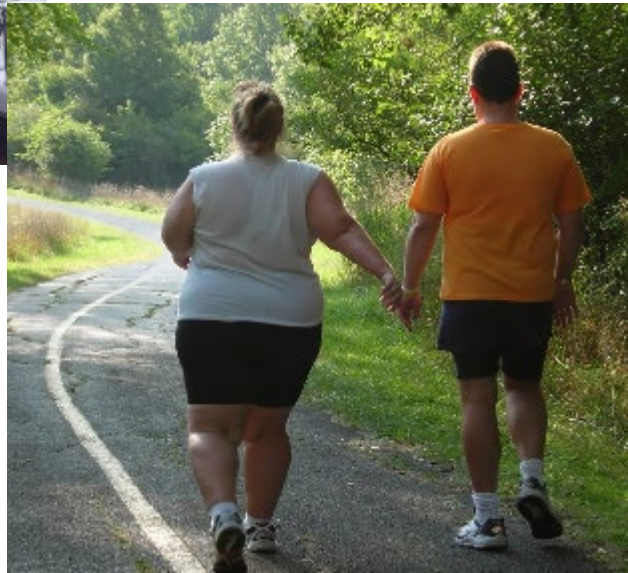




Would we prefer a system of “health care without walls” to what we have today?



# Who Could Benefit?





## The State of Play

- “The future has already arrived. It’s just not evenly distributed yet.”
- --William Gibson, science fiction writer who coined the term “cyberspace”



- Population-based intervention tackling SDOH beyond the clinical setting.
- Multidisciplinary teams include nurses, nurse case managers, Community health Workers.
- Provide community-based asthma care management, education and home visits.



## COMMUNITY ASTHMA INITIATIVE PROGRAM

- ED visits and hospital admissions drastically decreased.

# Lehigh Valley Health Network Telehealth Services and Programs

- Extensive array of virtual care programs developed beginning in mid 2000s
- Nurses key drivers of telemedicine services – frequently developing ideas for the services, tackle implementation and evaluation, and actively participate in patient care using the new technology.
- Key reason that system was awarded 2013 Magnet Prize

A close-up portrait of Lois Welsh, an elderly woman with short, wavy brown hair, smiling warmly. She is wearing a green top. The background is a soft, out-of-focus green.

**“LVHN’s Telehealth Monitoring Program kept me out of the hospital and in my home.”**

-Lois Welsh, active Nana of two

*I got the chills on a hot day in August. A few days later, I felt worse. My daughter called an ambulance to take me to Lehigh Valley Hospital–Hazleton. The doctors said I had congestive heart failure (CHF) and pneumonia. I was shocked. After 13 days in the hospital, I was finally strong enough to go home. Lehigh Valley Home Care nurses and therapists came to me. They set me up with a remote patient monitoring system that checked my blood pressure, heart rate and oxygen level. It was easy to use, and my health information was transmitted directly to the hospital. I learned that people with CHF often wind up back in the hospital after a week or two and that LVHN is the only home care service in the area to offer the monitoring service. They made sure I wasn’t getting sicker so I didn’t have to go back to the hospital. Now, I am stronger and doing great.*

A network of neighbors caring for Hazleton and beyond.

 **Lehigh Valley Health Network**

LVHN.org 888-402-LVHN

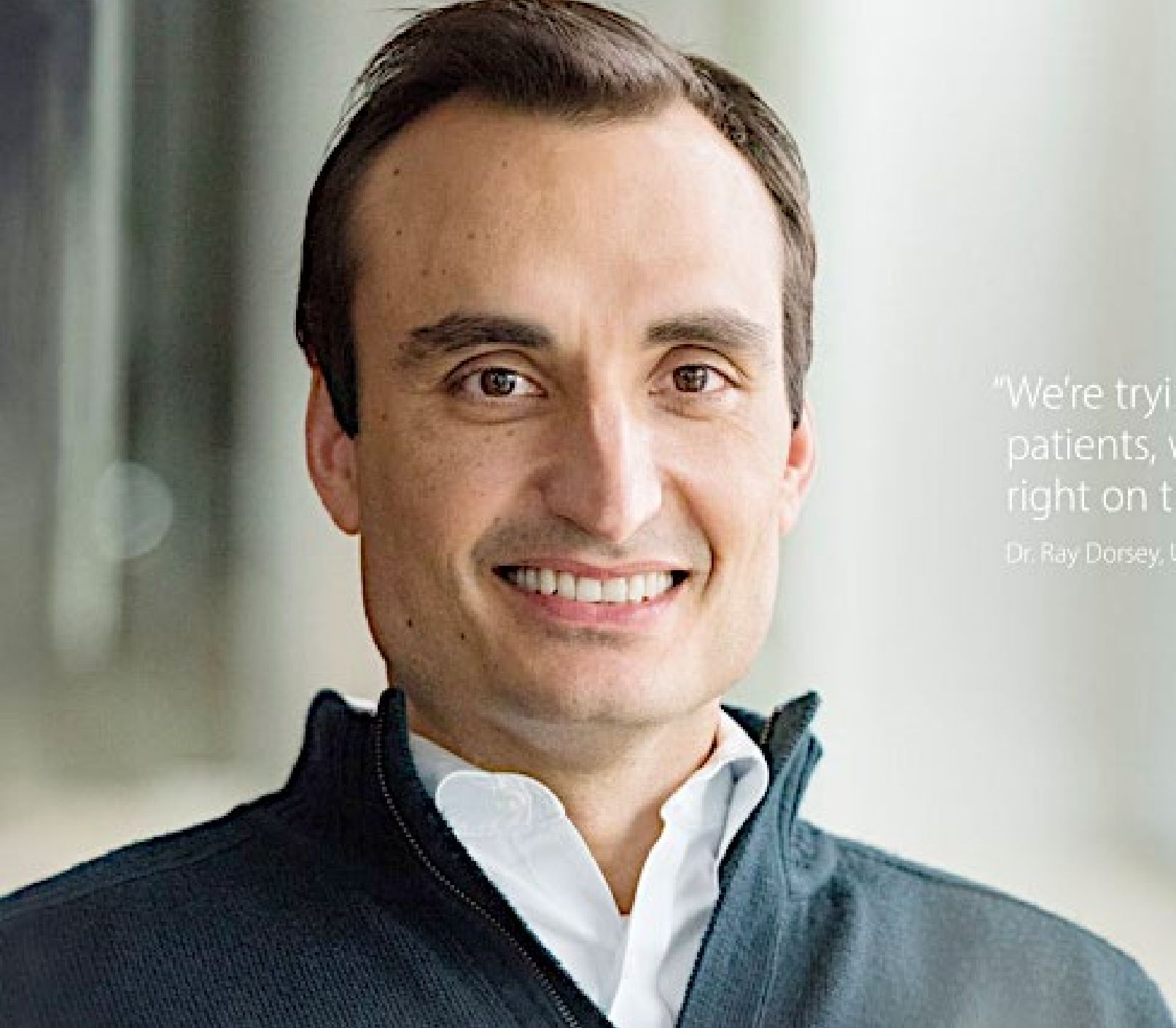
November 27, 2018

## Trends in Telemedicine Use in a Large Commercially Insured Population, 2005-2017

Michael L. Barnett, MD, MS<sup>1</sup>; Kristin N. Ray, MD, MS<sup>2</sup>; Jeff Souza, MA<sup>3</sup>; [et al](#)

- Although telemedicine use increased substantially from 2005 to 2017, use was still uncommon by 2017.”
- “Users of primary care telemedicine were **younger** on average...[and] more likely to reside in **urban** areas”
- “There was a **rapid increase in growth for primary care telemedicine in 2016 and 2017** after coverage for direct-to-consumer telemedicine expanded.”
- “The brisk adoption of telemedicine **may reflect consumers seeking convenience** rather than primary care supply”





"We're trying to bring care to patients, wherever they are, right on their phones."

Dr. Ray Dorsey, University of Rochester



September 12, 2017; 89 (11) **ARTICLE**

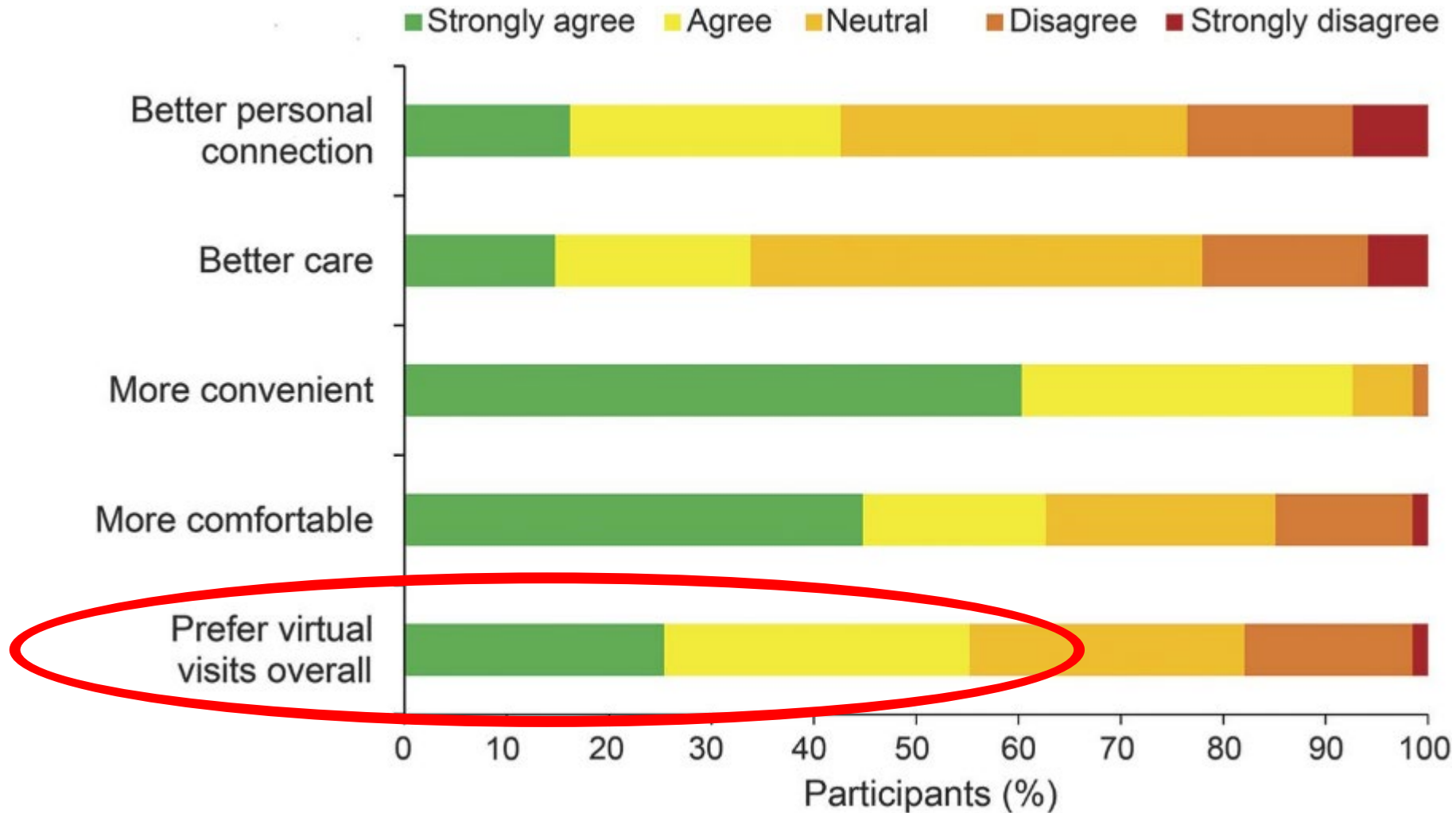
## National randomized controlled trial of virtual house calls for Parkinson disease

Christopher A. Beck, Denise B. Beran, Kevin M. Biglan, Cynthia M. Boyd, E. Ray Dorsey, Peter N. Schmidt, Richard Simone, Allison W. Willis, Nicholas B. Galifianakis, Maya Katz, Caroline M. Tanner, Kristen Dodenhoff, Jason Aldred, Julie Carter, Andrew Fraser, Joohi Jimenez-Shahed, Christine Hunter, Meredith Spindler, Suzanne Reichwein, Zoltan Mari, Becky Dunlop, John C. Morgan, Dedi McLane, Patrick Hickey, Lisa Gauger, Irene Hegeman Richard, Nicté I. Mejía, Grace Bwala, Martha Nance, Ludy C. Shih, Carlos Singer, Silvia Vargas-Parra, Cindy Zadikoff, Natalia Okon, Andrew Feigin, Jean Ayan, Christina Vaughan, Rajesh Pahwa, Rohit Dhall, Anhar Hassan, Steven DeMello, Sara S. Riggare, Paul Wicks, Meredith A. Achey, Molly J. Elson, Steven Goldenthal, H. Tait Keenan, Ryan Korn, Heidi Schwarz, Saloni Sharma, E. Anna Stevenson, William Zhu

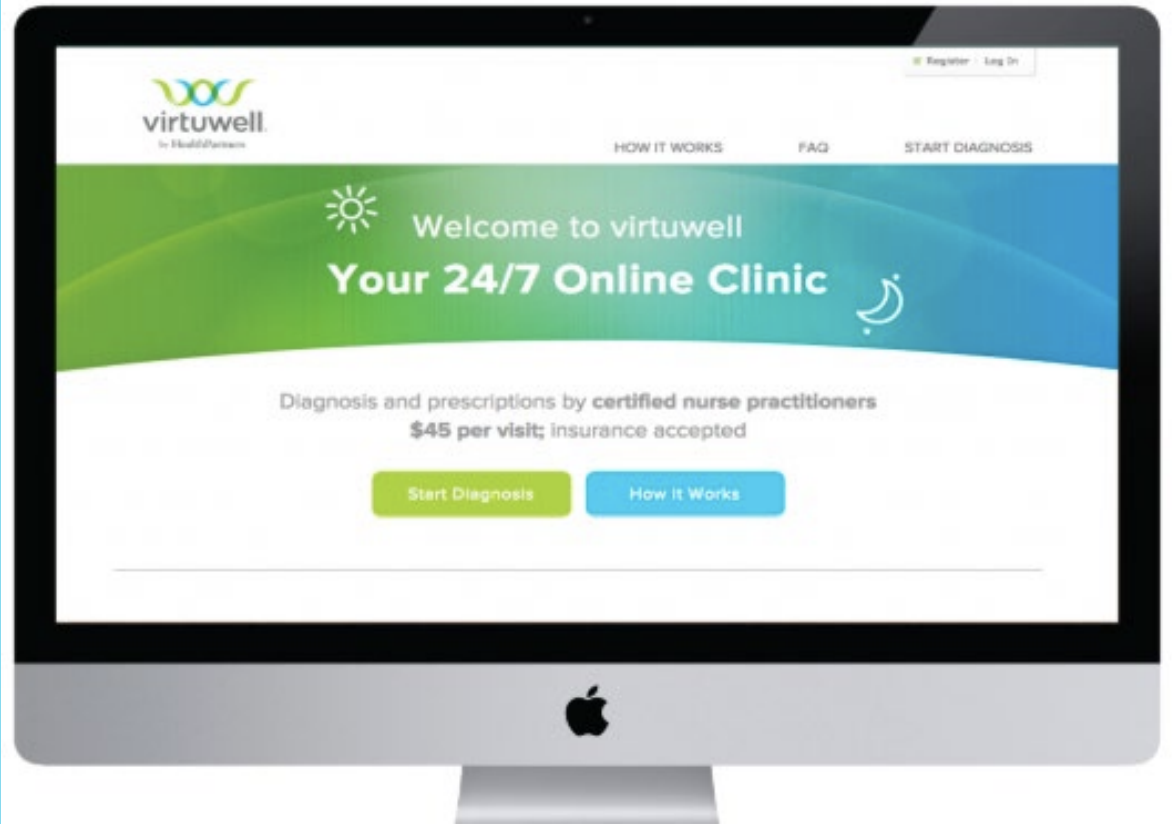
### Abstract

**Objective:** To determine whether providing remote neurologic care into the homes of people with Parkinson disease (PD) is feasible, beneficial, and valuable.

# Patients' satisfaction with virtual visits







## “virtuwel:” HealthPartners of Minnesota’s Online Clinic –

60 common conditions  
diagnosed and treated



Gwen Verchota, PhD, APRN-BC,  
care delivery manager and lead  
nurse practitioner at [virtuwel.com](https://www.virtuwel.com).



# TeleHealth Program

Helps Vets Stay Healthy and Independent



Veterans' Health  
Administration

- VHA has made significant investments in telehealth and remote monitoring under its “Anywhere to Anywhere” initiative
- 2.1 million encounters to 709,000 vets in 2017; 150,000 vets being monitored at home via cell phone
- Now conducting pilot telehealth program to provide remote access to psychotherapy and related services for rural Veterans with post-traumatic stress disorder (PTSD).
- A corps of vets now using FitBits and wearables to share information with providers

# Ohio State College of Nursing



- Operates Ohio State Total Health and Wellness
- Nurse practitioner-led, interprofessional, comprehensive health center
- Uses telehealth to provide health care to the students, faculty, staff, and their dependents on the Lima, Ohio campus.
- With registered nurses on site with patients in Lima, primary care is delivered by nurse practitioners from the Total Health and Wellness center located in Columbus, 93 miles to the southeast.
- Plans to have nurse practitioner students undergo preceptorships at Total Health & Wellness to learn how to conduct telehealth consultations in a team-based setting with nurses, dietitians, and pharmacists.

# Texas State University: Advanced Practice Nurse Training

- Telehealth used to prepare and enhance APN students' competencies to independently provide women's health care at a distance to expand access to care and patient satisfaction.
- The Pregnant Family Project: APN students training in assessing pregnant patients, evaluating dynamics of family unit experiencing pregnancy, counseling patient on health promotion, and implementing care plan
- Telephone, videos, face-time, video presentations used to follow-up with patients post face-to-face visit and to provide education, counseling and motivation for self-management of common discomforts of pregnancy to patients in their homes



## Telehealth from Walgreens Pharmacies in New York City To New York-Presbyterian

- Immediate consultations available with emergency department physicians
- Recently, one middle-aged man on Medicaid had a consultation and was immediately transported to the hospital for apparent heart attack

# CVS-Aetna: Combined Companies

- CVS Health President and CEO  
Larry Merlo, 11/18
- Goal: reinvent health care's "front door"
- "We will transform the consumer health care experience and build healthier communities through a new innovative health care model that is **local, easier to use, less expensive and puts consumers at the center of care**"





\$48.99 on Amazon



- 90 million Amazon prime subscribers in the US; more than 100 million worldwide
- The company had shipped more than 5 billion items in 2017 as part of its Prime service
- What might happen when online access to doctors, nurse practitioners, pharmacy, and even devices for self-care could happen in the same place?



**Feel safe,  
connected,  
and confident.**

**We've got simple  
and smart tech ▶**



**greatcall®**



- August 2018: Best Buy Co., Inc., a leading technology products and services provider, acquired GreatCall, a provider of connected health and personal emergency response services to the aging population with more than 900,000 paying subscribers

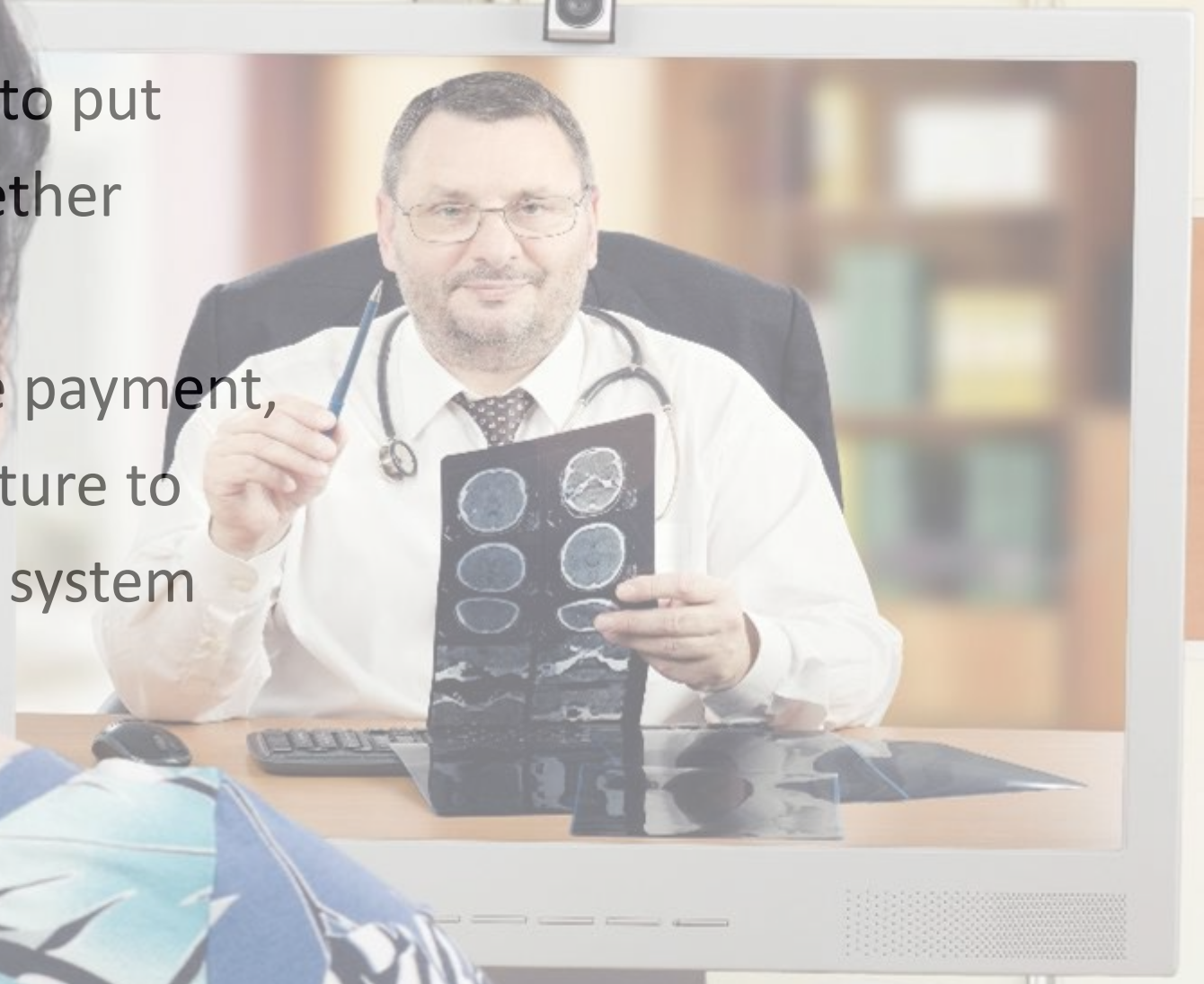


# Plethora of Technologies in Use Now, And More Coming

- Telehealth and telemedicine; remote monitoring
- Software, such as SaMD (software with a medical purpose)
- Data and information exchange, including via electronic health records
- Clinical decision support systems
- Artificial intelligence, cognitive computing, and machine learning
- Internet-enabled health devices and the Internet of Things
- Mobile medical applications; medical device data systems, used for the electronic transfer, storage, display, or conversion of medical device data; medical image storage devices, used to store or retrieve medical images electronically; and medical image communications devices, used to transfer medical image data electronically between medical devices
- “Low-risk” general wellness products, such as apps
- Lab tests, such as self-administered tests, and other technologies involved with laboratory work flow
- Autonomous cars
- Drones

# ...But It's Not Really All About the Technology!

- It's about using the technology to put people and health systems together in new ways
- It's also about reconfiguring the payment, regulatory, and other infrastructure to support a restructured delivery system



# What is the potential of more distributed care?

- Drastically increase care convenience
- Increase access, especially in underserved areas
- Leverage and extend existing provider base
- Universalize and democratize knowledge and expertise
- Reduce unnecessary “friction” in system – e.g., lost productivity, absenteeism from work

- Cut costs



# What is the potential of more distributed care?

- Address social issues in communities that contribute to poor health and drive health care utilization, such as hunger, lack of transportation, housing insecurity
- Meet patients where they are – including at home – via technologies including telehealth and smart phones



# Downsides?

- Human factors considerations – e.g., for aged and disabled in particular?
- Utilization to soar?
  - ‘Even easier to get a prescription dispensed than have a visit’?
- Privacy and security concerns?
- Disruption to existing business models and entities?
- Other?



# Multiple Obstacles To Overcome

- Inertia: systems have to change
- Lots of sunk costs in existing plant and capital
- Need for new payment models to support optimal care
- Need for a different or differently trained work force; more emphasis on teams
- State laws and regulations still impede activities such as telehealth
- Data privacy and security; HIPAA and state statutes for PHI plus “Wild West” for other data
- Lack of high-speed broad band access, internet connectivity in much of country



# Recommendations



# Technology

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- “Health Care Without Walls” technologies should have common elements:
  - Usability
  - Transparency
  - Interoperability
  - Seamless data and information exchange
  - Privacy and security
- A public-private initiative should be launched to guide health systems in acquiring most cost-effective technologies






# Payment

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- New payment models should encourage substitution of virtual care for physical care as appropriate, rather than simply an add-on
- U.S. government should launch a “21<sup>st</sup>-century Hill-Burton” program, not to build more hospitals but to turn them inside out
- Patients should be directly incentivized to take up virtual technologies linked to improved health outcomes

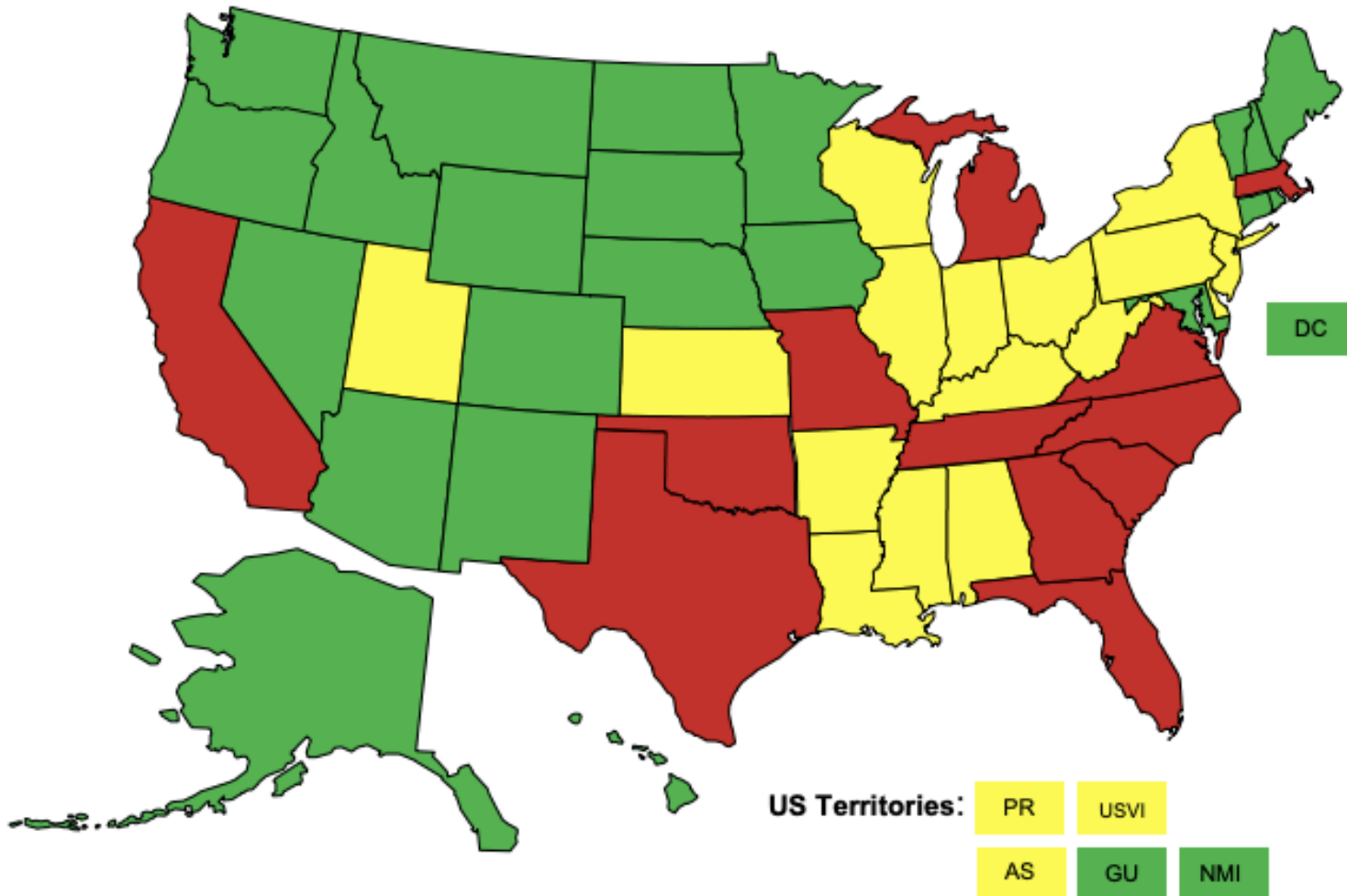


# Regulatory

- Many regulations tailored to older models of health care delivery
  - Scope of practice laws and regulations sorely outdated, raise costs, limit access; all providers should work at top of their licenses
  - Federal government should create parallel national licensure of health care professionals that states could opt into
  - U.S. should aim for a single overarching privacy and security regime, such as Europe's General Data Privacy Regulation, and one overarching regulatory agency
- 
- U.S. should adopt goal of universal, affordable, high-speed broadband and 5G; federal government should lead investment

## 2018 Nurse Practitioner State Practice Environment

# Scope of Practice for APRNs: Slow Progress



- Full Practice**  
State practice and licensure laws provide for nurse practitioners to evaluate patients, diagnose, order and interpret diagnostic tests, initiate and manage treatments—including prescribe medications and controlled substances—under the exclusive licensure authority of the of the state board of nursing. This is the model recommended by the National Academy of Medicine, formerly called the Institute of Medicine and National Council of State Boards of Nursing.
- Reduced Practice**  
State practice and licensure law reduces the ability of nurse practitioners to engage in at least one element of NP practice. State requires a career-long regulated collaborative agreement with another health provider in order for the NP to provide patient care or limits the setting of one or more elements of NP practice.
- Restricted Practice**  
State practice and licensure law restricts the ability of a nurse practitioner to engage in at least one element of NP practice. State law requires career-long supervision, delegation or team-management by another health provider in order for the NP to provide patient care.

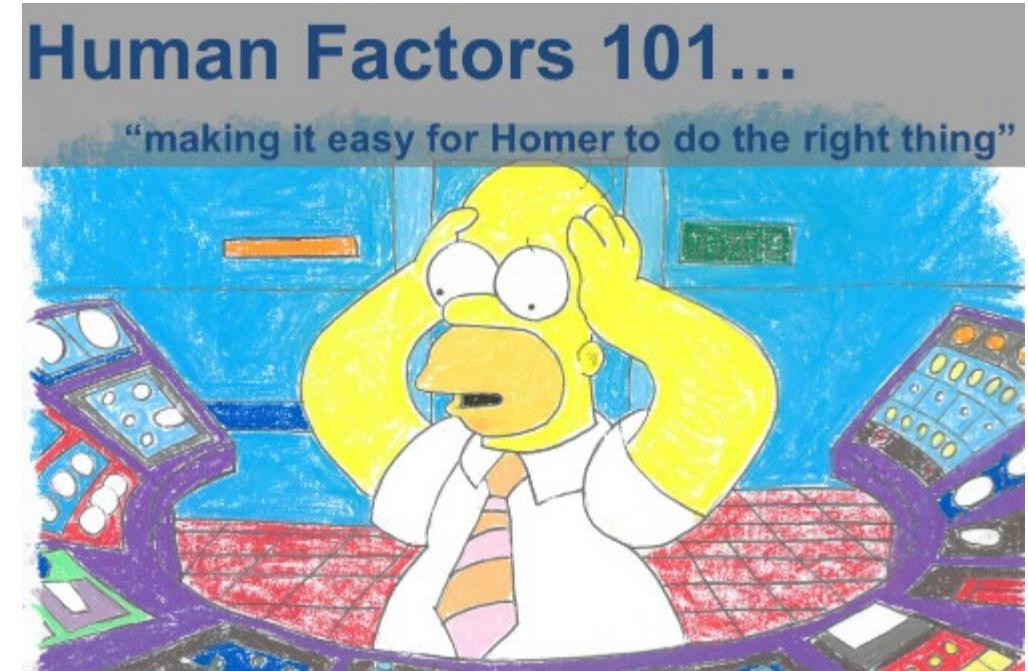
# State Patchwork of Laws on Telehealth and Nursing/Advanced Practice Nursing

- Wide variation among states in telehealth regulations with respect to all types of providers, including nurses and APRN's
- Slow evolution of APRN Compact (different from nursing compact) and slow adoption of APRN Regulatory Consensus Model inhibit telehealth both within and across states
- Nurses and APRNs working in telehealth in several states could be at risk of regulatory action
- Source: Balestra M, "Telehealth and Legal Implications for Nurse Practitioners," The Journal for Nurse Practitioners, 2017.

# Human Factors

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- Technologies for use in health care should be created via "human centered design" principles; developers should adopt voluntary standards
- Health care organizations and schools of health professions should integrate human factors expertise and human-centered design principles into their strategy, operations, and educational curriculums



# Work Force

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- Existing work force projections are essentially meaningless because they do not take technological change into account; improvements needed
- Changes in care delivery should provide opportunity for more cost-effective use of labor (arguably the highest cost input into health care)
- Many of today's workers will need retraining and continuing education to operate in more virtual care models, and training of tomorrow's workers should be revamped accordingly
- Many faculty members at schools of health professions education are far removed from practice and will require substantial faculty development





Implications for Nursing Education?

# Nurse Educator

How  
different  
is the  
situation  
today?

## Telehealth Education in Nursing Curricula

Ali, Nagia S. PhD, RN; Carlton, Kay Hodson EdD, RN, ANEF, FAAN; Ali, Omar S. MSN, RN

Telehealth care is a fast-growing avenue of providing health care services at a distance. A descriptive study was conducted to identify trends of telehealth education in 43 schools of nursing. Findings reflected inadequate integration of telehealth in classroom content, simulation, and clinical experiences. Interviews with 4 nursing leaders of telehealth provided some recommendations on how to integrate telehealth education in nursing curricula.



One  
Potential  
Response...



**If I Can't See It It Isn't  
Happening**

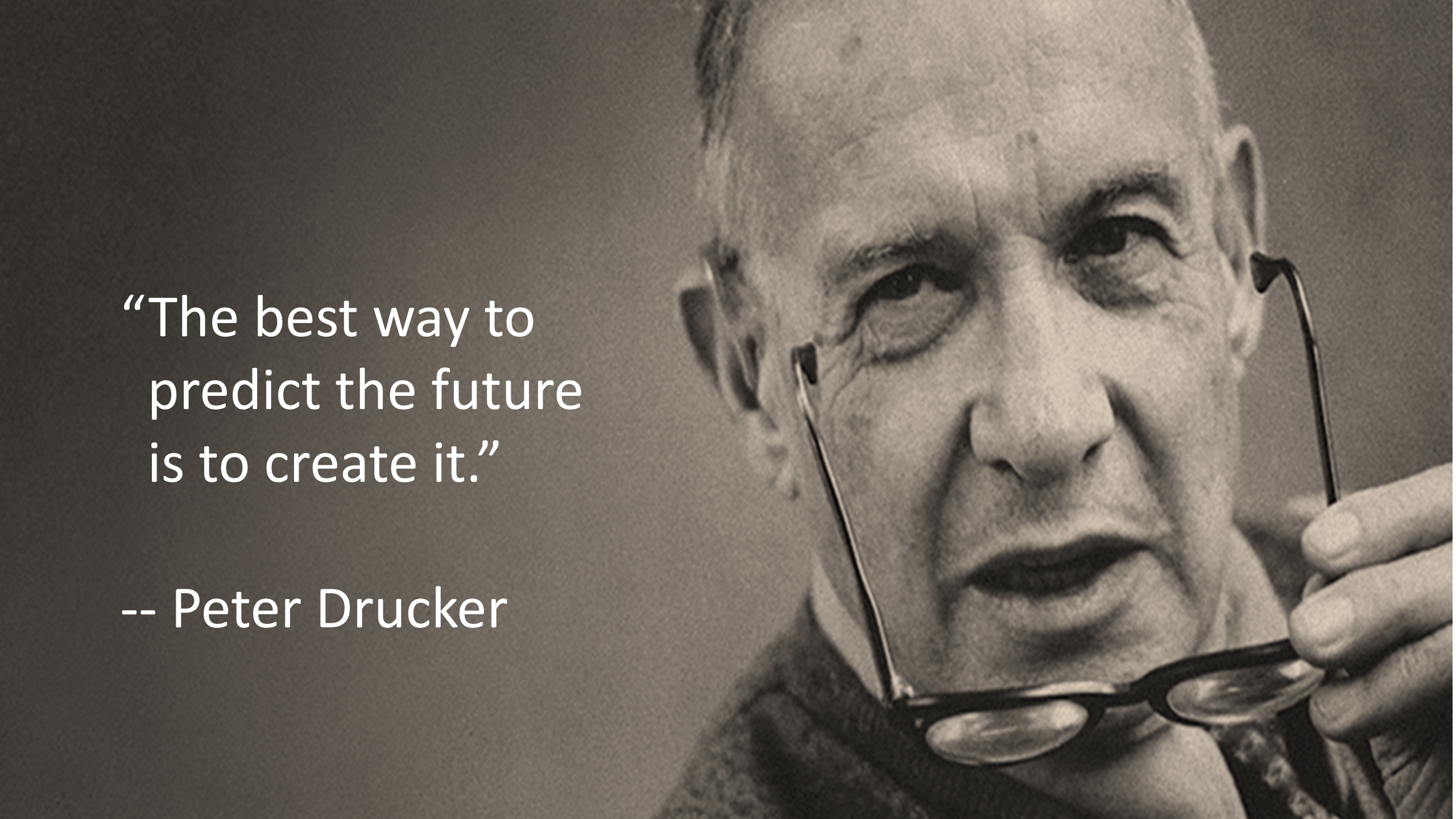
Get Ready to Run the Race!



# Agenda

- More experimentation with new delivery and payment models to support nursing's role in distributed care
- More research to compile evidence of improved health outcomes
- Advocacy at state and federal level, especially on reform and regulatory issues



A black and white close-up portrait of Peter Drucker. He is looking slightly to the right of the camera with a thoughtful expression. He is holding a pair of dark-rimmed glasses in his right hand, with the frames resting near his chin. The background is a plain, light-colored wall.

“The best way to  
predict the future  
is to create it.”

-- Peter Drucker



“Those who say it can’t  
be done are usually  
interrupted by others  
doing it.”

--James Baldwin

“Every great  
dream begins  
with a dreamer.”

--Harriet Tubman





THE END