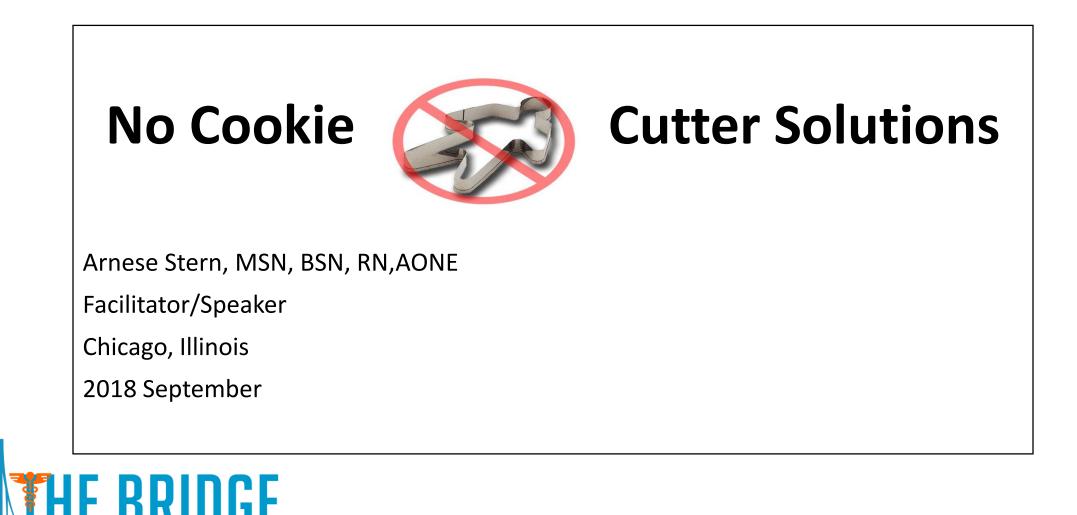
## **AMERICAS' HEALTHCARE:**



# **Connect To Purpose:**













# **Objectives:**

- 1. The "WHY": Review Top 12 Healthcare Issues of 2018
- 2. The "WHAT": Discuss Current Solutions
- 3. The "WHO": Discuss Industry Bold Moves -
- 4. The "HOW" Discussion: Responding to 21st century issues





# WHY: Top 12 Health Industry issues of 2018

### **Cross-sector collaboration:**

- 1. Opioid Crisis
- 2. Social Determinants
- 3. Price Transparency and Control moves to Statehouse
- 4. Natural Disasters impact on Healthcare





# WHY: Top 12 Health Industry issues of 2018

### **Strategic Investments:**

- 5. Medicare Advantage
- 6. Health Reform
- 7. Internet Security
- 8. Patient Experience





## WHY: Top 12 Health Industry issues of 2018

### **Creating efficiency:**

- 9. Artificial Intelligence
- 10. Middleman Endangerment
- 11. Pharma
- 12. Tax Reform



### "Healthcare is yet to be transformed by technology." -Joshua Kushner



## WHAT: Current Solutions (2014)

- EMR
- mHealth
- Self Service Kiosk
- RX Notification
- Teledoc
- Telemedicine/Telehealth
- Portal Health
- Robotic Surgery
- Customer Experience Platforms
- Quality Rounding Platforms





# WHAT: Current Solutions (2014) cont.

- SMART equipment (Glucometer's, Beds etc.)
- Pyxis
- Remote Monitoring Tools
- Sensors/Wearable Technology
- Wireless Communication (Nurse Call systems)
- Real Time Tracking Devices
- Pharmacogenomics/genome sequencing



## WHO: BOLD MOVES





- Microsoft filed 73 patents related to Artificial Intelligence (AI) in the last 5 years: eyecare, disability research, Cloud Initiatives
- Amazon has acquired wholesale pharmacy licenses in 12 states, with at least one other pending, signaling a possible entry into the pharmacy business by the online retail giant
- Ochsner HS AI to predict Advanced Patient Outcomes using EPIC and Azure
- Microsoft Cyber Security after ransomware attack "Wanna Cry" May 2017
- Genomics: Microsoft Telehealth expand border coverage to respond to physician shortages in underserved populations
- VBP and Social Disparities
- Interoperability betw. Health Systems
- Google AI Assistant
- Alphabet (Google plus) making bets in life sciences
- Google making significant investments in health, wellness, and life sciences (i.e. + Ganar Interferon proteins used for BS detection= 85% accurate)

## WHO: BOLD MOVES 2020 Disrupters



HEALTHCARE SOLUTION PARTNERS

- Artificial Intelligence: CAGR of 42% to reach \$6.6 billion in 2021
- Immunotherapies: Checkpoint inhibitors growing at 139% CAGR
- Liquid Biopsy: Potential to monitor tumors non-invasively
- CRISPR/Cas9 (RT): Disrupting the way R&D is conducted and products are developed
- 3D Printing: Game changer for organ or tissue repair

### Engage: Who originally said...

# "Man is still the most extraordinary computer of all."







## **Discussion : INNOVATIVE Ideas**

# What is being done to address the **Top 12** Health Issues of 2018?





# **Discussion: INNOVATIVE Suggestions**

- Measurement Applications for New Implementations from beginning to sustainable outcomes goals met
- Homecare Technology expansion
- Patient -Consumer Engagement Applications addressing ,not just their care, but contributing to reforming healthcare ( i.e. Opiate Epidemic, Waste )
- Homebased Mental Health Monitoring
- Human Trafficking Technological Assessment
- Dx. and/or outcomes predictability and trend applications

- Individualized Healthcare Workers Burn-Out Assessment Tools (comparative to healthy workload standards) (i.e. Physician burnout and CEO turnover)
- AI Facility Needs Assessment of Hospital Fiscal Health with Projection of short and long term hospital closure projections and WHY?
- Proactivity: Sentinel Events AI Assessment comparative to Top 10 sentinel events according to CMS
- Consider who's already built it
- Independent S.M.A.R.T innovations





## Were Objectives Met?

- 1. The "WHY": Review Top 12 Healthcare Issues of 2018
- 2. The "WHAT": Discuss Current Solutions
- 3. The "WHO": Discuss Industry Bold Moves
- 4. The "HOW" Discussion: Responding to 21st century issues



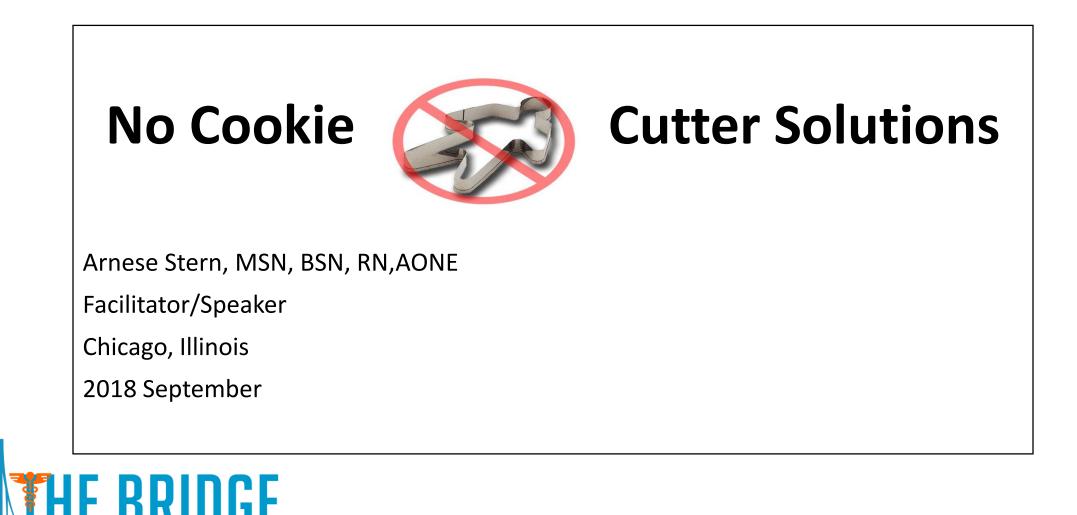
# THANK YOU,

Arnese Stern, MSN, BSN, RN,AONE Facilitator/Speaker Chicago, Illinois 2018 September





## **AMERICAS' HEALTHCARE:**



PwC Health Research Institutes Annual Report. (2017). Top health industry issues of 2018 from <a href="https://www.pwc.com/us/en/health-industries/top-health-industry-issues.html">https://www.pwc.com/us/en/health-industries/top-health-industry-issues.html</a> on July 29,2018.

https://www.pwc.com/us/en/health-industries/top-health-industry-issues/opioid-crisis.html

CDC Prescription Opioid Overdose Data, August 2017, https://www.cdc.gov/drugoverdose/data/overdose.html

osh Katz, "Drug deaths in America are rising faster than ever," New York Times, June 5, 2017, <u>https://www.nytimes.com/interactive/2017/06/05/upshot/opioid-epidemic-drug-overdose-deaths-are-rising-faster-than-ever.html?em\_pos=small&emc=edit\_up\_20170605&nl=upshot&nl\_art=0&nlid=48889406&ref=headline&te=1& r=1</u>

MD Chen, Pauline W, "Spending More and Getting Less for Health Care," The New York Times, Nov. 21, 2013, <u>https://well.blogs.nytimes.com/2013/11/21/spending-more-and-getting-less-for-health-care/?mcubz=3</u>

"Cancer of the Breast (Female) - Cancer Stat Facts." National Cancer Institute. Accessed Oct. 19, 2017, <a href="https://seer.cancer.gov/statfacts/html/breast.html">https://seer.cancer.gov/statfacts/html/breast.html</a>

https://www.pwc.com/us/en/health-industries/top-health-industry-issues/price-transparency.html

https://www.pwc.com/us/en/health-industries/top-health-industry-issues/health-reform.html

United States Census Bureau, 2014 National Population Projections, Table 6, Percent Distribution of the Projected Population by Sex and Selected Age Groups for the United States: 2015 to 2060, https://www.census.gov/data/tables/2014/demo/popproj/2014-summary-tables.html

Gretchen Jacobson et al, "Medicare Advantage Plans in 2017: Short-term Outlook is Stable," The Henry J Kaiser Family Foundation, Dec. 21, 2016, http://www.kff.org/report-section/medicare-advantage-plans-in-2017-issue-brief/

Centers for Medicare and Medicaid Services, "2017 Star Ratings," Oct. 12, 2016, https://www.cms.gov/Newsroom/MediaReleaseDatabase/Fact-sheets/2016-Fact-sheets-items/2016-10-12.html

PwC analysis of "The 2017 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds," The Board of Trustees, Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds, July 13, 2017

5 PwC Health Research Institute Health Insurer Executive Survey, 2016-2017



- HRI analysis of data reported by US Industrial Control Systems Cyber Emergency Response Team (ICS-CERT)
- 2 Kim Zetter, "Why Hospitals Are the Perfect Targets for Ransomware," Wired, March 3, 2016, https://www.wired.com/2016/03/ransomware-why-hospitals-are-the-perfect-targets/
- 3 NH-ISAC, "HHS ASPR/CIP HPH Cyber Notice: On-Going Impacts to HPH Sector from WannaCry," June 2, 2017, https://nhisac.org/wannacryransomware-update/
- 4 Bill Chappell and Maggie Penman, "Ransomware Attacks Ravage Computer Networks in Dozens of Countries," NPR, May 12, 2017, s/thetwo-way/2017/05/12/528119808/large-cyber-attack-hits-englands-nhs-hospital-system-ransoms-demanded
- 5 PwC, "The Global State of Information Security Survey 2017," 2016
- 6 HRI analysis of data reported by US Industrial Control Systems Cyber Emergency Response Team (ICS-CERT); Thomas Fox-Brewster, "Medical Devices Hit By Ransomware For The First Time In US Hospitals," Forbes, May 17, 2017, https://www.forbes.com/sites/thomasbrewster/2017/05/17/wannacry-ransomware-hit-real-medical-devices/#7a259438425c
- 7 Wired, "Medical Devices are the Next Security Nightmare," March 2017, https://www.wired.com/2017/03/medical-devices-next-securitynightmare/



Patient experience as a priority and not just a portal <u>https://www.pwc.com/us/en/health-industries/top-health-industry-issues/patient-experience.html</u>

• Adam Cherrington and Colin Buckley, "Patient engagement 2016 – No silver bullet; strategic approach needed," KLAS, January 2017, https://klasresearch.com/report/patient-engagement-2016/978

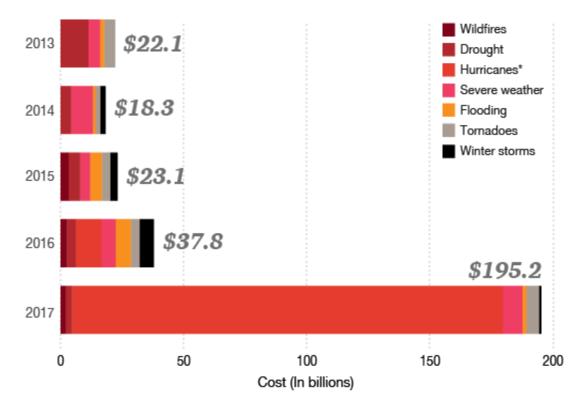
- Thomas H. Lee, "How U.S. Health Care Got Safer by Focusing on the Patient Experience." Harvard Business Review, May 31, 2017. https://hbr.org/2017/05/how-u-s-health-care-got-safer-by-focusing-on-the-patient-experience
- PwC, "2017 Global Digital IQ Survey," 2017, https://www.pwc.com/us/en/advisory-services/digital-iq/assets/pwc-digital-iq-healthcare-pls-findings.pdf
- Becker's Hospital Review (2014). Ten Biggest Technological Advancement for Healthcare in the Last Decade founat at <u>https://www.beckershospitalreview.com/healthcare-information-technology/10-biggest-technological-advancements-for-healthcare-in-the-last-decade.html</u> on August 13,2018.



- Marc Berger et al, "A Framework for Regulatory Use of Real-World Evidence," Duke Margolis Center for Health Policy, 2017, https://healthpolicy.duke.edu/sites/default/files/atoms/files/rwe\_white\_paper\_2017.09.06.pdf8,9,10
- 4 Gregory Daniel, "Clarifying the Real-World Data and Evidence Landscape," presentation at public meeting: A Framework for Regulatory Use of Real-World Evidence, Sept. 13, 2017, https://healthpolicy.duke.edu/sites/default/files/atoms/files/rwe\_fda\_slide\_deck\_2017\_09\_13.pdf
- 5 Ibid.
- 6 "Use of Real-World Evidence to Support Regulatory Decision-Making for Medical Devices: Guidance for Industry and Food and Drug Administration Staff," U.S. Food & Drug Administration, Aug. 31, 2017, https://www.fda.gov/downloads/MedicalDevices/DeviceRegulationandGuidance/GuidanceDocuments/UCM513027.pdf
- https://www.pwc.com/us/en/health-industries/top-health-industry-issues/tax-reform.html
- wC Tax Insights from Washington National Tax Services, "House Ways and Means Chairman Brady releases tax reform bill," Nov. 2, 2017, https://www.pwc.com/us/en/tax-services/publications/insights/house-ways-and-means-chairman-brady-releases-tax-reform-bill.html
- 2 Don Whalen, Jessica McKeon and Chris McCoy, "Indefinitely Reinvested Foreign Earnings: Balances Held By the Russell 1000, A 9-Year Snapshot," July 2017, Audit Analytic, http://www.auditanalytics.com/0000/custom-reports.php
- Das, Reenita (2016). Five Technologies That Will Disrupt Healthcare By 2020 from https://www.forbes.com/sites/reenitadas/2016/03/30/top-5-technologies-disrupting-healthcare-by-2020/#61e729a66826



### Disasters have cost the US between \$18 billion and \$200 billion each of the last five years



\* Hurricane costs for 2017 are estimates due to Hurricanes Harvey, Irma and Maria. Wildfire costs for 2017 are likely underestimated as the damage from the California wildfires is still being assessed as of December 2017.

Source: PwC Health Research Institute analysis of data from the National Oceanic Atmospheric Administration

© 2017 PricewaterhouseCoopers LLP, a Delaware limited liability partnership.

