Emerging Innovations
Impacting Nursing

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Objectives

• Describe types of innovation.

• Explain emerging roles and models of care.

• Identify strategies to mitigate barriers to innovation.
Three “types” of Health Care Innovation

Health technology

Buying & using health care

Business models

(HERZLINNER, 2006)
Since an early flush of optimism in the 1950's, smaller subsets of artificial intelligence - first machine learning, then deep learning, a subset of machine learning - have created ever larger disruptions.
Augmented Reality

(Merriam-Webster, 2017)
(Projectarm.com, 2017)
Virtual Reality/Gaming
Robotics
3D Printing

(Thefutureofthings.com, 2018)
Predictive Analytics

• Utilizes regression analysis.

• Scours trends along with modeling and AI.

• Goal is to proactively predict what will occur based on data proven history.
Wearables

- Continuous monitoring, sending data to be analyzed and interpreted.
- Freedom for patients requiring more intense monitoring.
Models of Care
Retail Care
77% of consumers would use telehealth

70% are comfortable communicating via text, email or video chat
Emerging Roles

• Watch for “UBERization” of nurses
  – Likely to even become more task-based jobs (“gig economy”)
• Monitor technicians
• Phlebotomists
• Internist? (Babylon)
• Clinical pathologists?
• Radiologists? (Google Xray)
• Nursing assistants/patient care technicians? (Service robots)
# Approach to Care

<table>
<thead>
<tr>
<th></th>
<th>Old Approach</th>
<th>New Approach</th>
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<tbody>
<tr>
<td><strong>Care</strong></td>
<td>Episodic visits</td>
<td>Continuous relationship</td>
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<tr>
<td><strong>Management</strong></td>
<td>Clinician</td>
<td>Clinical team</td>
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<td><strong>Decision-making</strong></td>
<td>Training and experience</td>
<td>Evidence</td>
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<td><strong>Control</strong></td>
<td>Care system</td>
<td>Patient</td>
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<tr>
<td><strong>Variability</strong></td>
<td>Clinician autonomy</td>
<td>Patient needs, preferences</td>
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<tr>
<td><strong>Information flow</strong></td>
<td>Restricted</td>
<td>Encouraged</td>
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<tr>
<td><strong>Process visibility</strong></td>
<td>Secrecy</td>
<td>Transparency</td>
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<tr>
<td><strong>Safety</strong></td>
<td>Responsibility of clinician</td>
<td>Responsibility of system</td>
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<tr>
<td><strong>Needs</strong></td>
<td>System reacts</td>
<td>System anticipates</td>
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<tr>
<td><strong>Financial goal</strong></td>
<td>Reduce cost</td>
<td>Reduce waste</td>
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Social Innovation

• Developing new ways to improve health equities
• Reduce disparities
• Improve the impact of SDOH
• New models of care
• Improved access
Fostering Innovation
Think Creatively

How would Picasso draw you?
Design Thinking

TIP: Designthinking.ideo.com is a GREAT resource
Human Centered Design

• Empathy: think about the **person**

• Define: what is the **problem**?
Iterate

• Ideate: brainstorm *divergent* ideas

• Prototype: *solution* or product

• Test: rapid *pilots*
Celebrate Failure

TRY SOMETHING and FAIL! TRY NOTHING and SUCCEED.
DRAW TOAST

A Primer in Systems Thinking

Tom Wujec
Mitigating Barriers

– Start tomorrow
– Collaborate, develop partners
– Don’t stop for one, work for the many
– Iterate, iterate, iterate
Build Your Network
This is the time for nurses to *lean in* and *lead*.
Thank you
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