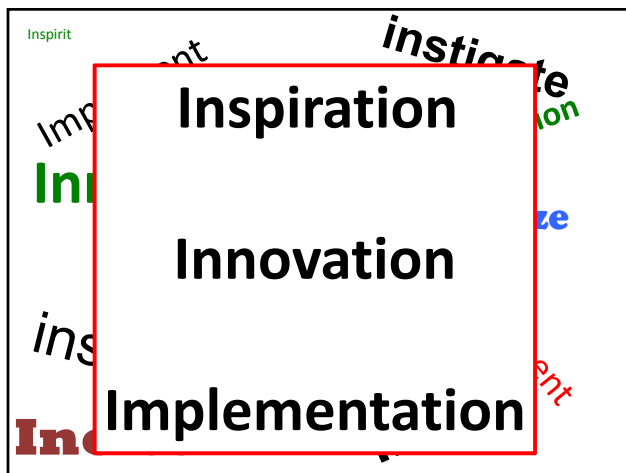


Emerging Technologies to Support
Patient-Centered Care
Informatics Enabling
Patient-Centered Care Across the Continuum

Patricia Flatley Brennan, RN, PhD, FAAN
University of Wisconsin-Madison

Conference Goals

- Describe ways of using informatics tools to support patient engagement and patient-centered care.
- Identify new and evolving roles for clinicians and informaticians in providing patient-centered care across the continuum.
- Address ongoing challenges in achieving interoperability, with consideration for devices and apps individuals and families use to monitor and manage their health.
- Address ongoing challenges in using data from diverse sources to improve patient care and health outcomes and to control costs.



What inspires you?

- The patients you serve
- The institutions that employ you
- The wonders of technology
- ...
- ...
- ...

Why is it when they say
“novel treatment” they always show
women in a laboratory???



Novel Treatments

Morton Pytte, 2012

Instead of a
nurse in the
home??



MarcJeffriesComfortKeepers/photos

Innovation
from a
patient-centered
perspective

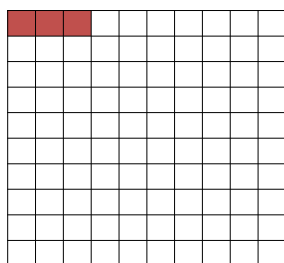
Nursing's special responsibility

What is patient centered care?

- I receive exactly the healthcare I want and need exactly when and how I want and need it
- The same thing as collaborative care
- Only possible with patients who are alert, oriented and verbal
- What ever the patient thinks it is
- Too expensive, not worth the effort

**How will we
reach
all the people
who will need
nursing?**

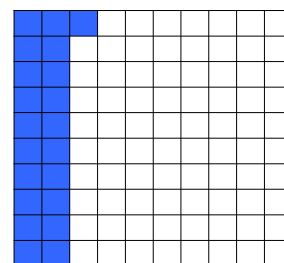
Out of 100 people living today..



- 3 have a serious mental illness

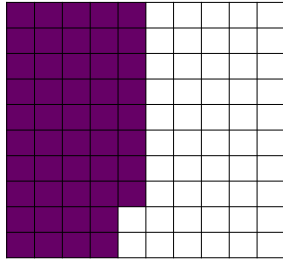
Out of 100 people living today..

- 21 smoke



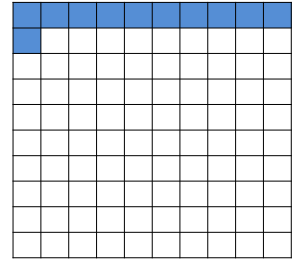
Out of 100 people living today..

- 48 do not get enough exercise



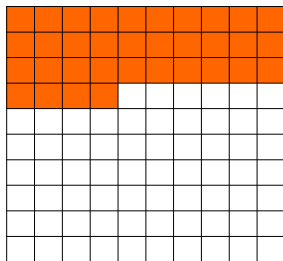
Out of 100 people living today..

- 11 have diabetes



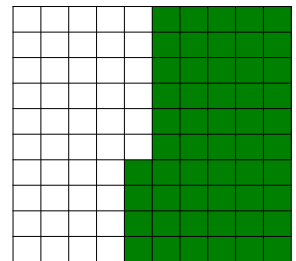
Out of 100 people living today..

- 34 have high blood pressure



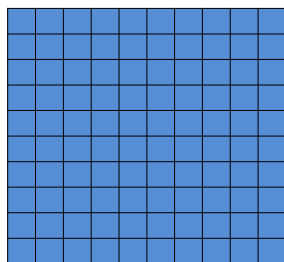
Out of 100 people living today..

- 47 have heart disease

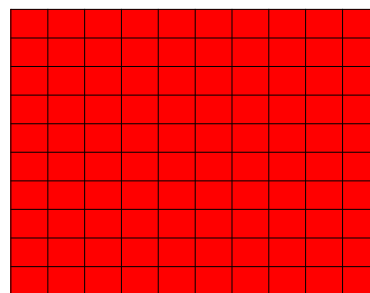


Out of 100 people living today..

- 100 need to exercise, eat right, manage stress...

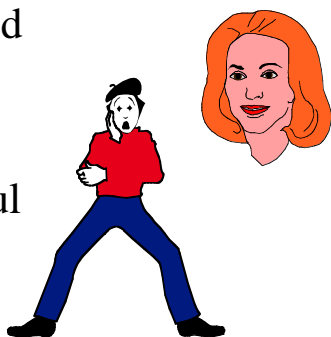


All of them need NURSING!



SMART Patients

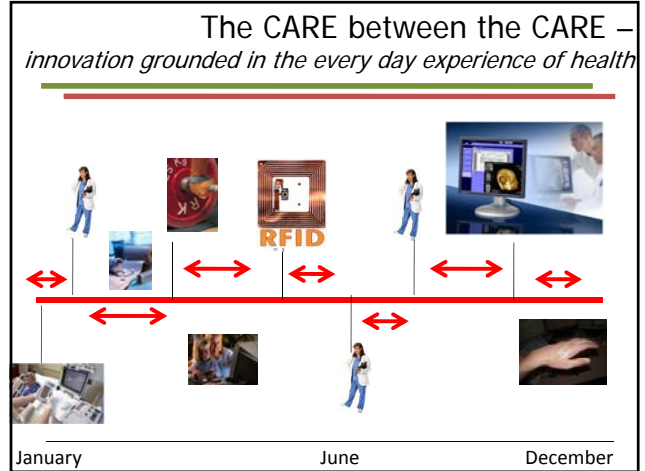
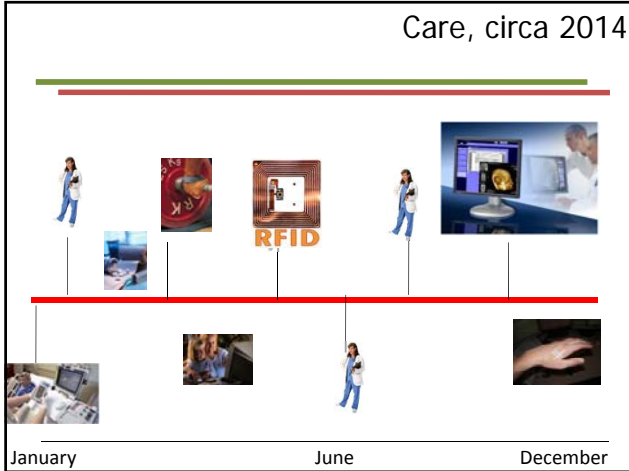
- Self-assured
- Motivated
- Aware
- Resourceful
- Talented



Remember they may also be:

- Scared
- Minors!
- Anxious
- Reluctant
- Time consuming





Professionals are
experts in
clinical care

People are experts in
every-day living

What is the
range of technologies?

Cool Tools

- Devices
- Exercises
- Visualizations
- Ingestible (nanotech)
- Computation
- Environments
- Simulations
- Information technology
- Evidence generation and evidence application

IT for patient centered care

- health care processes
- clinical outcomes
- intermediate outcomes (patient or provider satisfaction, health knowledge and behavior, and cost)
- responsiveness to needs and preferences of patients
- shared decisionmaking and patient-clinician communication
- access to information

Tech trends aligned with patient-centered care

- Mobile & portable
- Invisible computing
- Virtual worlds
- Gamification
- Distributed data models
- Big data

The future of technology in health care

- It's not only therapeutic
 - Unintended consequences
 - Cell-shedding
 - MRSA
 - Carpel tunnel syndrome
 - Autoimmune response to implantables
- Relies on novel energy sources
- Devices that clean themselves, reduce organisms growth
- Computation is just as important as content

Match the technology to the
PCC concept

*en*vision...

And a word about
DISRUPTIVE INNOVATIONS

- technologies that provide different values from mainstream technologies
 - initially inferior to mainstream technologies along the dimensions of performance that are most important to mainstream customers.

Innovations...
it's not just about the
technology

Technology-enabled
care requires
reliable, learning
health systems

Innovations arising from experience

- Exploitation
 - *Learning from the known*
- Exploration
 - *Discovering the new*

Finding the E² balance

- Too much exploration: costly!
 - Too many underdeveloped new ideas
 - Too little distinctive competence
- Too much exploitation: expensive in a different way
 - Trapped in a suboptimal stable equilibrium

Think about each of these adages

A decidedly unscientific process!

Reorder these from most to least like you

1. Slow and steady wins the race
2. In for a dime, in for a dollar
3. A bird in the hand is worth two in the bush
4. Give a man a fish, feed him for a day; teach him to fish, feed him forever
5. A pencil used is an opportunity not wasted
6. A ship in port is safe, but that is not what ships are built for

The role of
nursing informatics:
leading to
create the right balance!

From Inspiration
through
Innovation
to implementation

Creating an environment inspires
innovation and supports implementation

- Cultivating the right workforce - - turnover helps keep the balance
- Turbulence – friend or foe?
- Preventing innovation-fatigue
- Leveraging resources
- Consider: How does being nice interfere with our ability to innovate?

Now that you've got
innovations,
how do you ensure
success?

Seven steps to effective innovation

- understanding patients' and providers' expectations
- untethering technology from traditional revenue expectations
- deconstructing the traditional health care encounter
- being open to discovery
- being mindful of the importance of space
- redesigning care to improve value in health care
- being bold and visionary

Summary and Closing



Practitioner-Patient Congruence

Sharing

1. The doctor is the one who should decide what gets talked about during a visit.
2. Although health care is less personal these days, this is small price to pay for medical advances.
3. The most important part of the standard medical visit is the physical exam.
4. It is often best for patients if they do not have a full explanation of their medical condition.
5. Patients should rely on their doctors' knowledge and not try to find out about their conditions on their own.
6. When doctors ask a lot of questions about a patient's background, they are prying too much into personal matters.
7. If doctors are truly good at diagnosis and treatment, the way they relate to patients is not that important.
8. Many patients continue asking questions even though they are not learning anything new.
9. Patients should be treated as if they were partners with the doctor, equal in power and status.

Caring

1. Patients generally want reassurance rather than information about their health.
2. If a doctor's primary tools are being open and warm, the doctor will not have a lot of success.
3. When patients disagree with their doctor, this is a sign that the doctor does not have the patient's respect and trust.
4. A treatment plan cannot succeed if it is in conflict with a patient's lifestyle or values.
5. Most patients want to get in and out of the doctor's office as quickly as possible.
6. The patient must always be aware that the doctor is in charge.
7. It is not that important to know a patient's culture and background in order to treat the person's illness.
8. Humor is a major ingredient in the doctor's treatment of the patient.
9. When patients look up medical information on their own, this usually confuses more than it helps.

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