



Presenting:

Improving decision quality: one decision at a time

Karen Sepucha PhD

DAAG Conference 2015

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Improving decision quality: one decision at a time

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Massachusetts General Hospital

- > 7000 staff physicians and nurse practitioners
- 1.5m ambulatory visits
- 41k surgeries
- 18 adult primary care practices

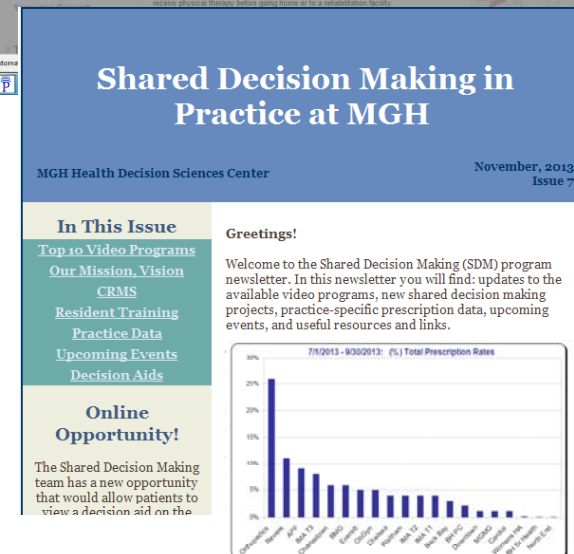
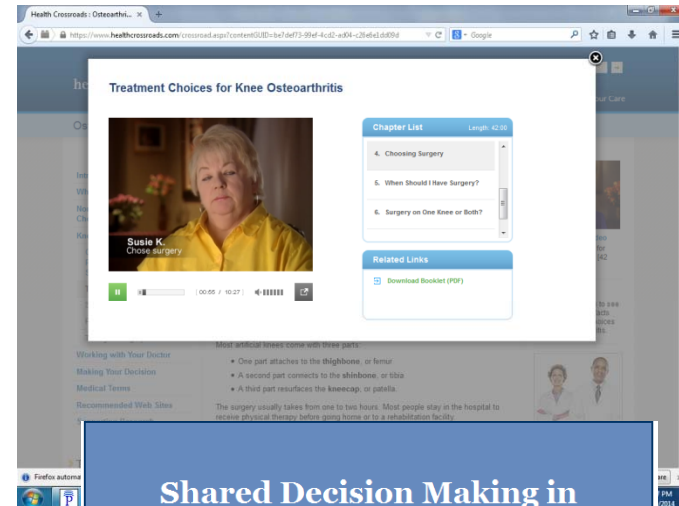




HEALTH DECISION SCIENCES

Let's Decide Together

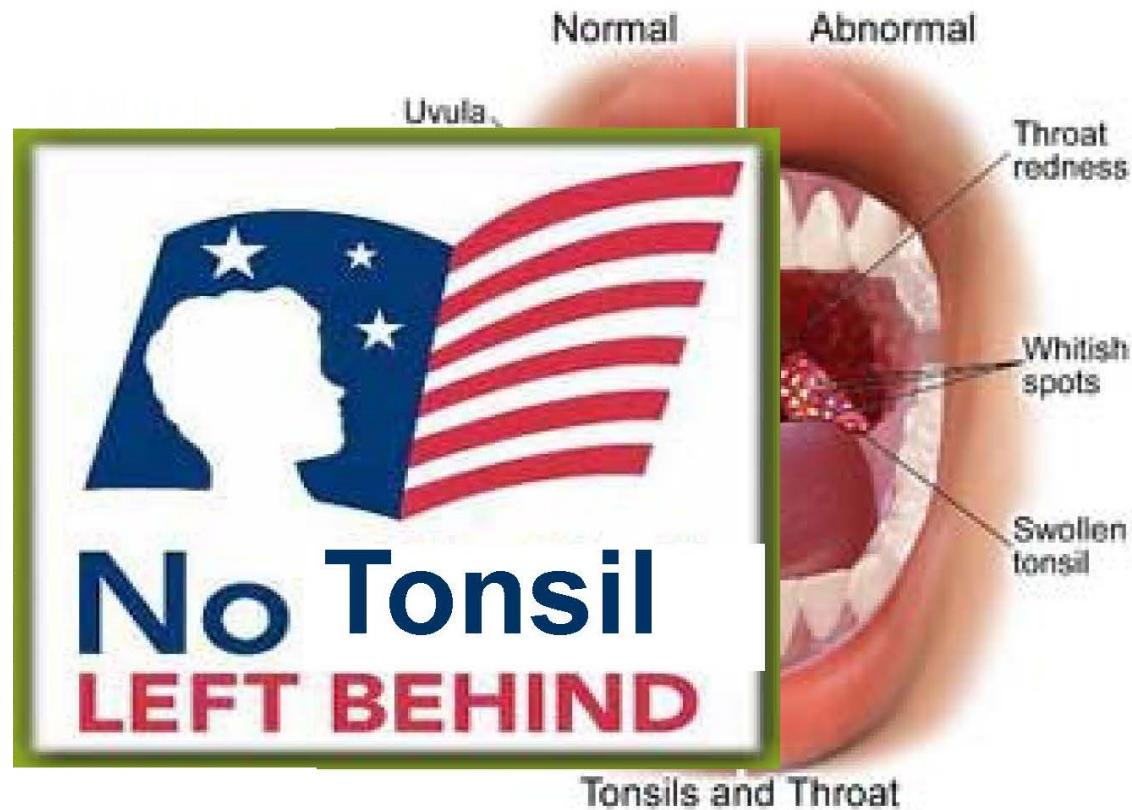
- Right treatment to the right patient at the right time, every time
- Shared decision making (SDM) program
- Decision quality measurement
- Medical education training and skills



Outline

- Tonsils
- Difficult patients...and magical thinking
- Hips and knees

Tonsillectomy



What's the evidence?

- Natural history of disease well established, most kids outgrow problem by 14 or 15.
- Operative mortality (in 1930s) ~2% due mainly to anesthetic deaths
- Conclusion at the time: "...tendency for the operation to be performed for no particular reason and no particular result...sad to reflect that many of the anesthetic deaths... were due to unnecessary operations."

Are we better off today?

Study highlights tonsillectomy numbers and risks



Michelle Healy, USA TODAY

1:50 a.m. EST January 20, 2014

In a study of children's hospitals, researchers find a wide range of revisit rates for tonsillectomies and adherence to guideline use of certain medications for the surgical procedure.



38

CONNECT



92

TWEET



20

LINKEDIN



1

COMMENT

Although the number of tonsillectomies on kids in the USA has declined drastically over the past 30 years, the surgery remains one of the most commonly performed on kids. A new study found significant variation among hospitals in adherence to three aspects of tonsillectomy care: how likely kids are to return to the hospital for complications.

In the study in February's *Pediatrics*, published online today, 8% of nearly 140,000 children and healthy children (ages 1 to 18) had to revisit the hospital within 30 days of having a tonsillectomy, 63.5% of whom going to the emergency department and 36.5% being admitted to the hospital. The

"nearly 100 years after the procedure has caught on, it's embarrassing that we don't have good, high-quality research about which children will benefit," Goodman says.

STORY HIGHLIGHTS

- 8% of children who underwent same-day tonsillectomy had to revisit the hospital within 30 days
- Most common reasons for revisits were bleeding, vomiting and dehydration



Beer Pon



MASSACHUSETTS
GENERAL HOSPITAL



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What's the lesson?

- Care you get depends more on where you live and which doctor you see than on who you are and what you care about
- ...we are trying to change that

Our goal: Decision quality

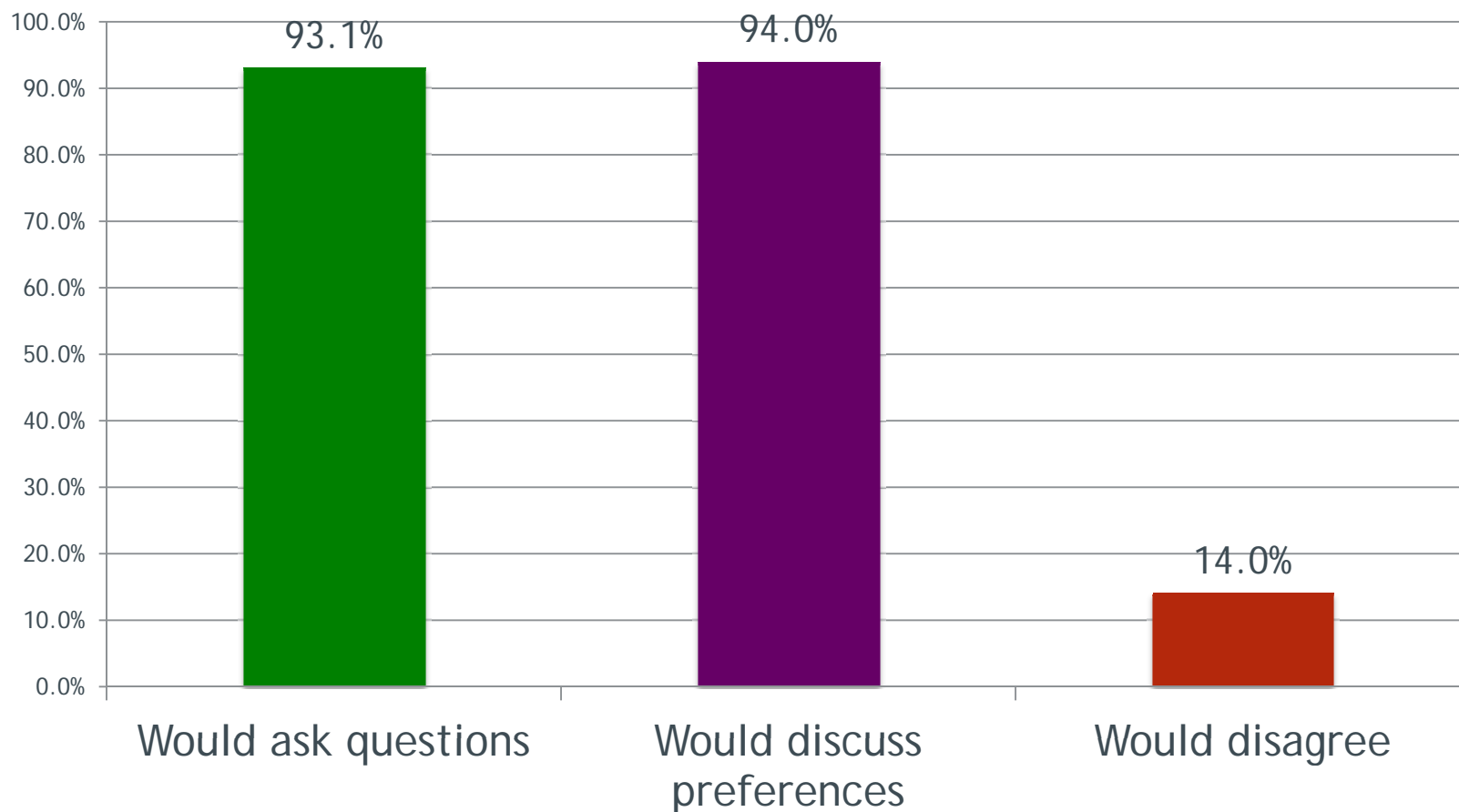
Every patient facing a significant decision about an elective medical test or treatment is well informed, meaningfully involved and receives treatment that matches their goals

Outline

- Tonsils
- Difficult patients...and magical thinking
- Hip and knees

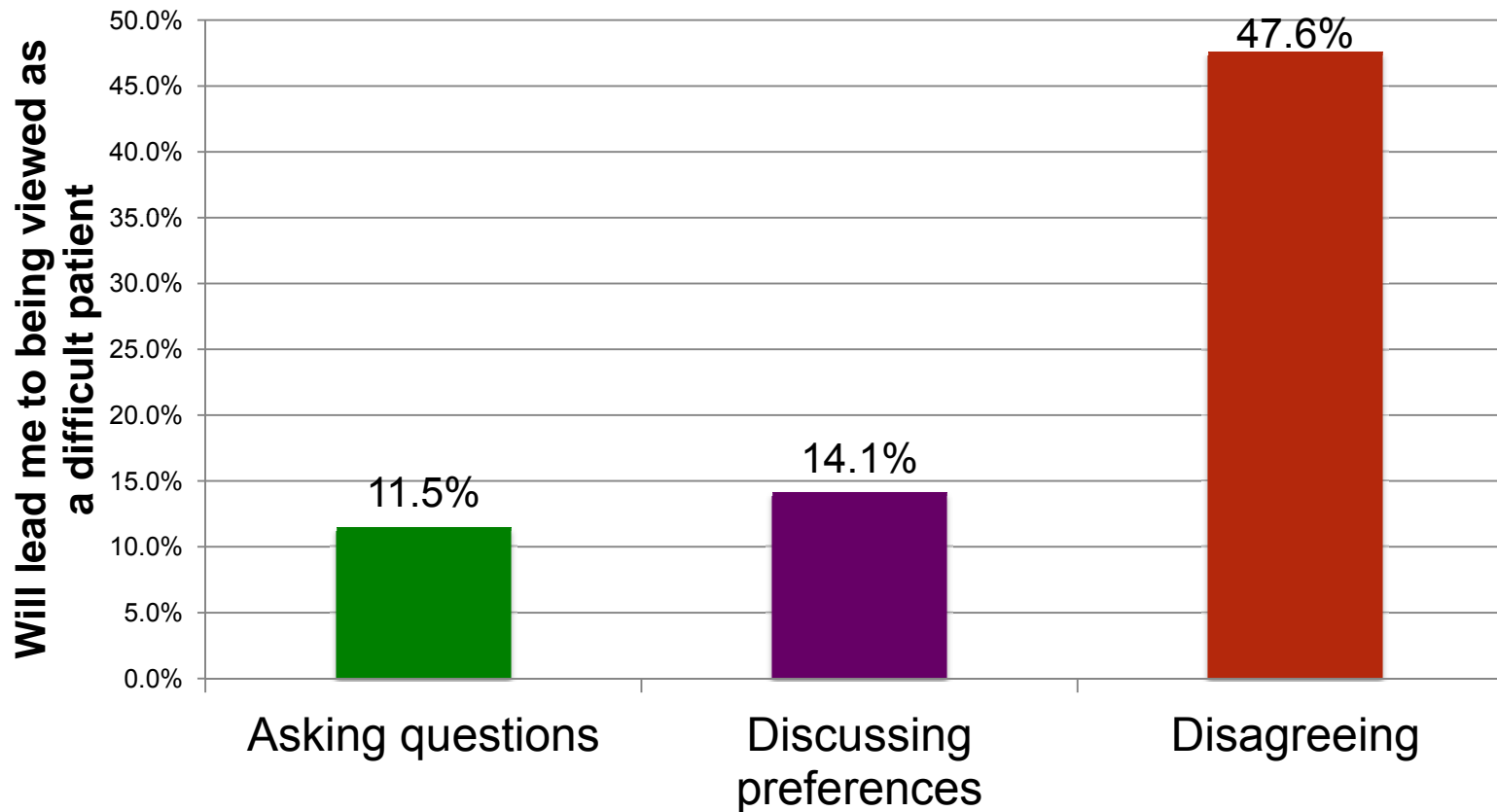
Reality check

Most people don't feel comfortable disagreeing with a physician's recommendation



Reality check

Because they fear being labeled a “difficult patient”



N=1340, $p < .0001$

A common sentiment among healthcare providers regarding shared decision making:



*“We already do that
all the time.”*

Reality check

- Study of 1057 audio-taped clinical encounters, containing 3552 decisions.
- What proportions of decisions met most basic definition of informed decisions?
 - Nature of decision or intervention
 - Patient role in decision making
 - Explanation of pros and cons
 - Discussion of patient preferences
 - 9%

Braddock, et al. JAMA, 1999

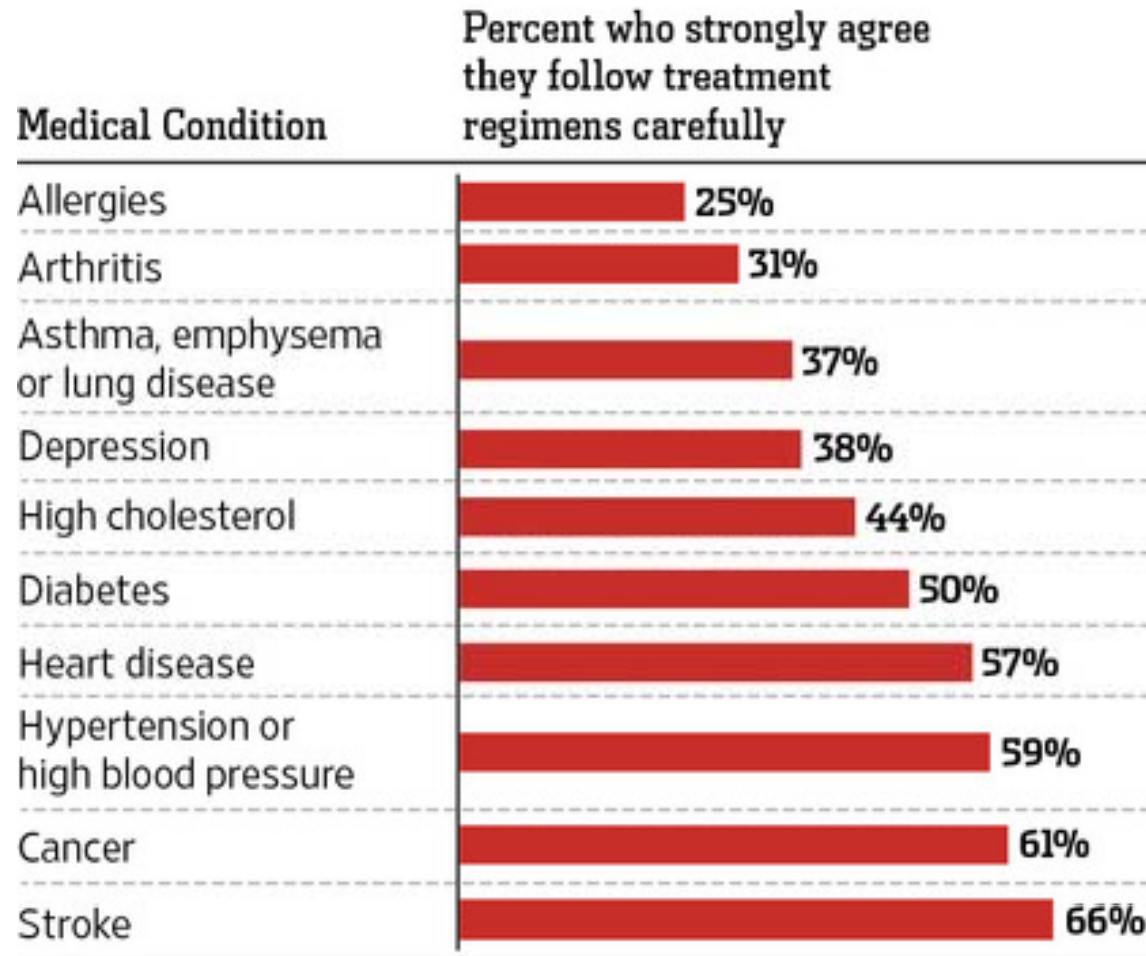
A common sentiment among healthcare providers regarding shared decision making:



“I don’t have time to do this.”

Doctors' Orders Ignored

For certain chronic conditions, adherence to treatment recommendations is spotty, according to a survey of privately insured adults age 21 to 64



Source: Employee Benefit Research Institute, 2008; Center for Studying Health System Change, 2008; Judith H. Hibbard and Peter J. Cunningham



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Mr. M's Story



Mr. M

- 71yo man referred to orthopedics, worsening right hip pain, x-rays confirm severe osteoarthritis
- Mr. M met the clinical appropriateness criteria for total joint replacement
- Orthopedic surgeon's note: "I went over in some detail different treatment options. He very much wishes to proceed with right THR."

Mr. M, cont.

- Scheduled surgery, 3 month wait
- Continued physical activity which helped relieve pain, particularly night time hip pain
- Saw PCP for pre-op clearance
- PCP sent patient decision aid (DVD and booklet) to review

Massachusetts General Hospital
Yawkey Center for Outpatient Care
55 Fruit Street, [REDACTED]
Boston, Massachusetts 02114

Mr. M's Letter

Dear Dr. [REDACTED]

Re: Hip Replacement Surgery

I am writing to tell you that at this time I will not be proceeding with my right hip replacement procedure. Therefore, will you please cancel my appointments for pre-admission testing on July [REDACTED], and for surgery on [REDACTED]

About six months ago I added daily biking to my exercise routine and after three months found that the nighttime hip pain was gone. When I saw you in May, I was not sure if this important change to my life style would hold. It has so far.

Based on a conference with Dr. [REDACTED] my primary care physician, and on a viewing of the very helpful information on a DVD that he prescribed (Treatment Choices for Hip Osteoarthritis), sent to me by Massachusetts General's Patient and Family Learning Center, I have decided that waiting for the surgery is the best decision.

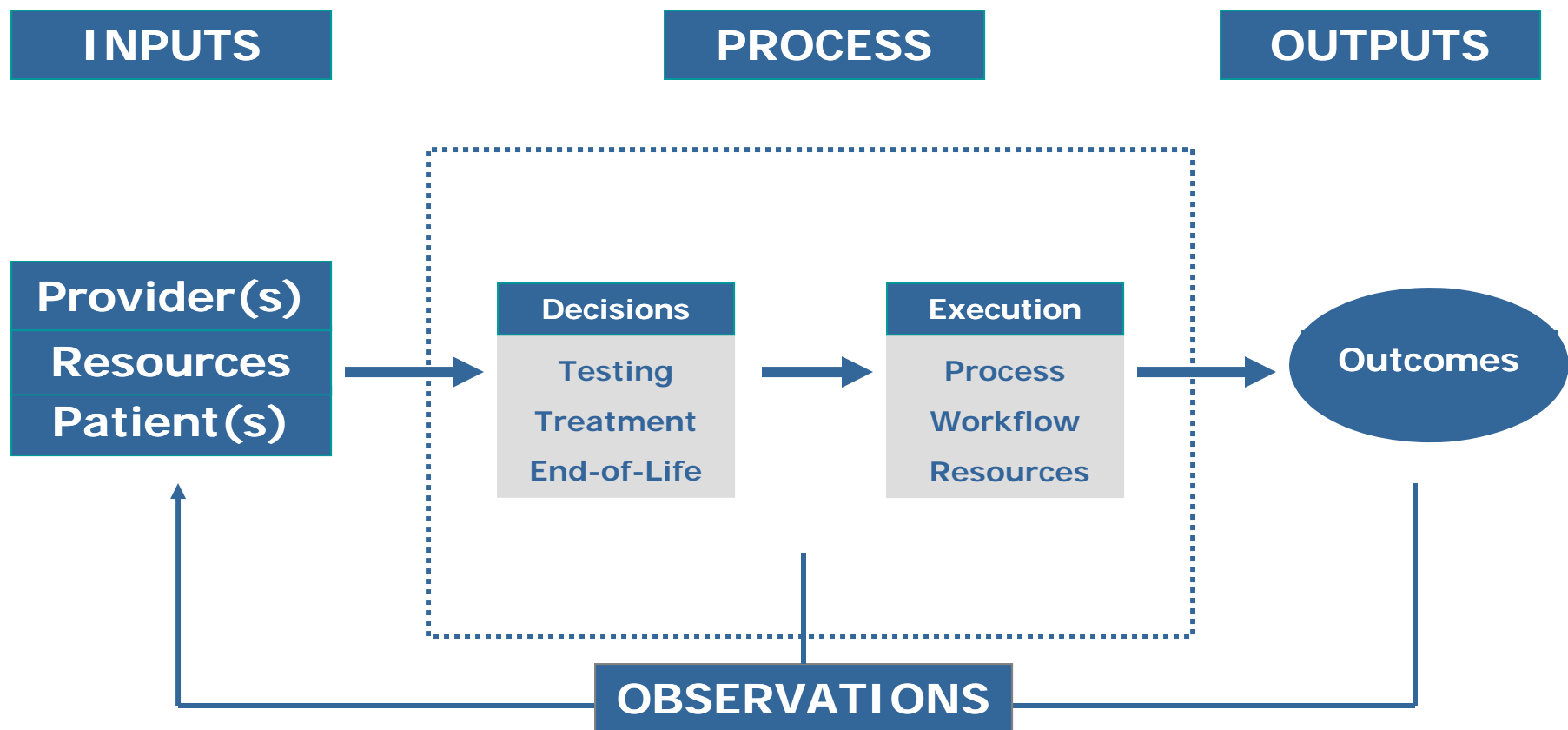
Thank you for your help and patience.

With kind regards,

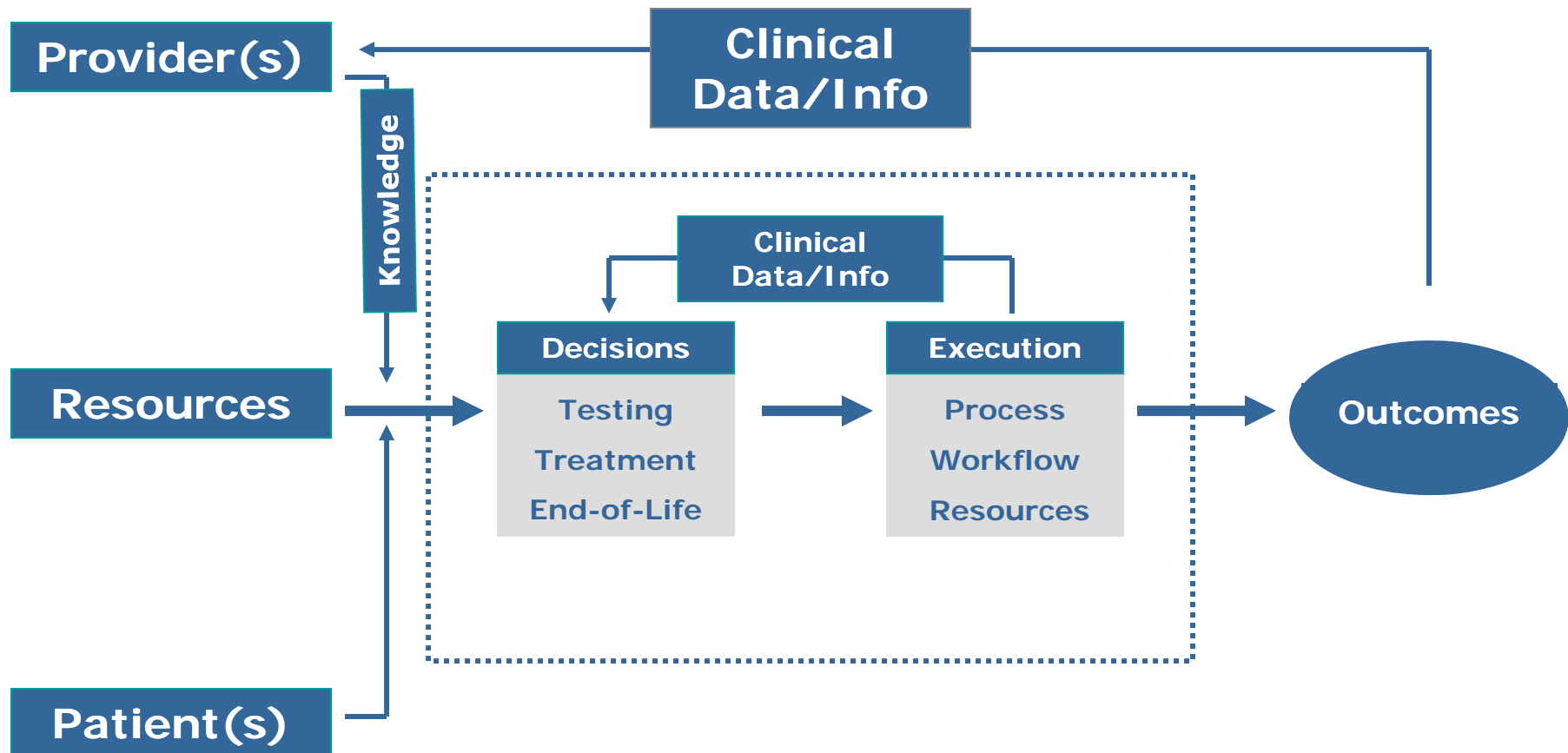
Not a bad decision, but...

- How many times have we missed and operated on the wrong person?
- Who is responsible for making sure that patients have made a high quality decision? Primary care? Surgeons? Administration? Patients?
- What systems would need to be in place to ensure decision quality and accountability?

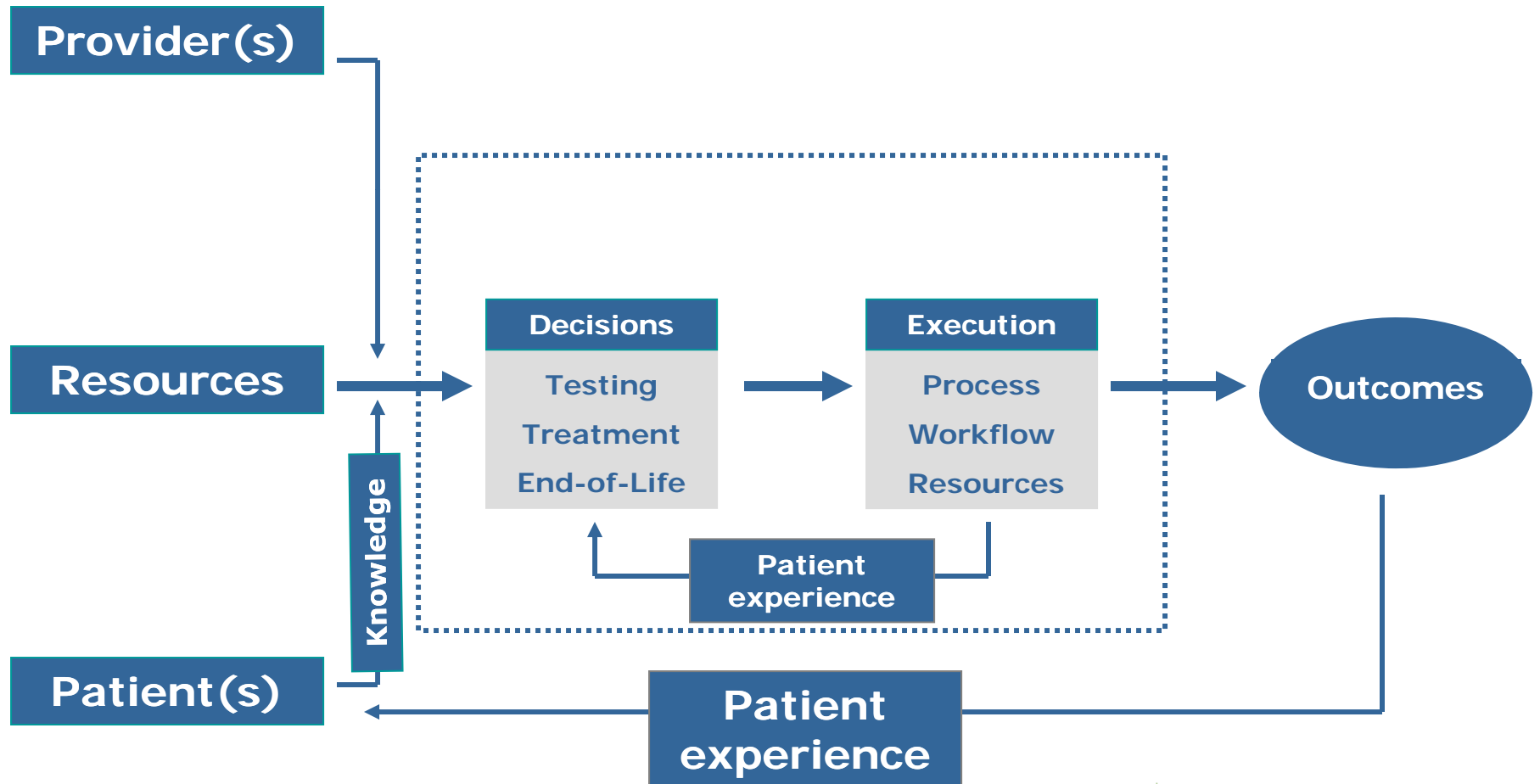
Shared Decision Making: Supporting Continuous Learning



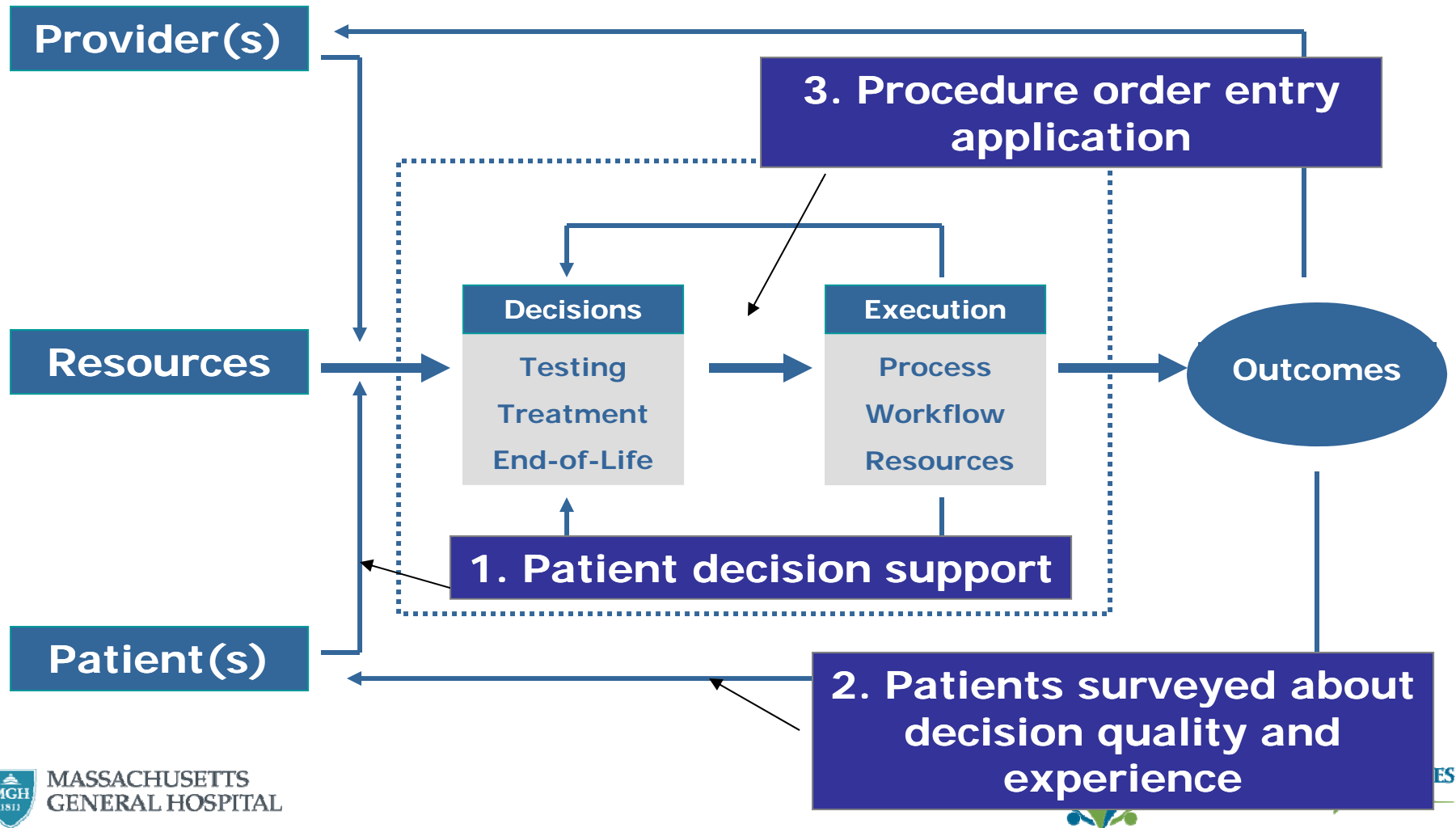
Medical Knowledge: evidence about options and outcomes



Patient knowledge: goals and experience of disease and care



Joint replacement surgery decisions

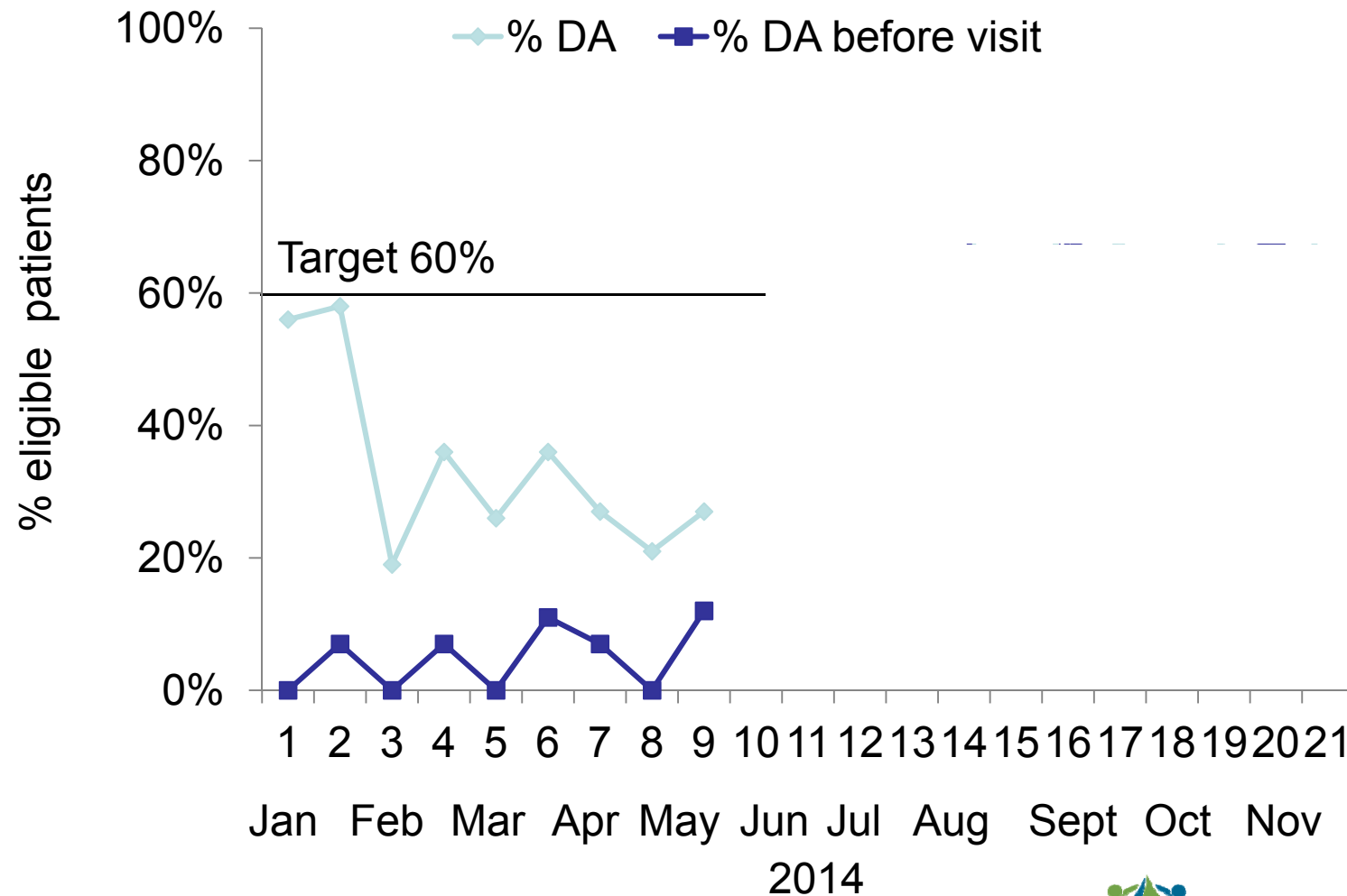


1. Patient Decision Aids

- Available in different media (online, DVD, booklets)
- Information on the choices, benefits and harms, clarify values and goals, steps of decision making
- 115 randomized controlled trials:
 - Increase knowledge, desire for involvement
 - Fewer people undecided (RR 0.59)
 - Reduce elective surgery rates (RR 0.79)



Hip/ knee decision aid orders



2. Decision quality: “phase 1”

	Knowledge Score (0 – 100%)	Involvement Score (0 – 100%)	Clear Treatment Preference
Patient A	100%	100%	Yes - Surgery
Patient B	80%	100%	Yes - Surgery
Patient C	40%	14%	No - Not sure
Patient D	20%	14%	Yes - Surgery

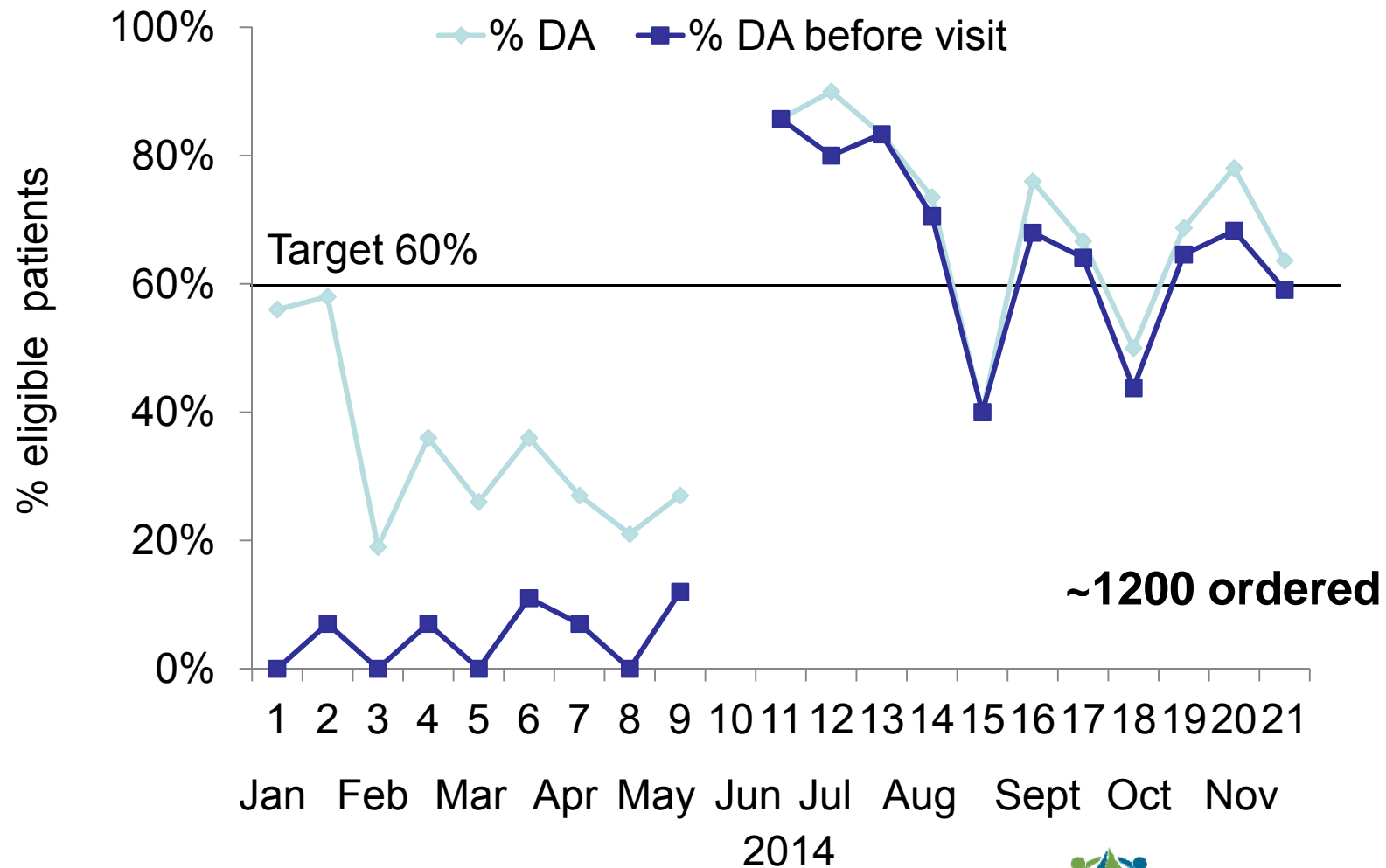
Considerable variability within and between providers

What's the impact (n=225)?

	Knowledge Score (0 – 100%)	Involvement Score (0 – 100%)	Clear Treatment Preference
No decision aid	45%	53%	80%
Decision aid	48%	65%	93%

Good, but...Is the timing right? Are there other tools that are more effective in conveying information?

Hip/ knee decision aid orders



3. Procedure Decision Support System

QPID - PrOE - MRN: 0000004

QPID PrOE

Options Legend Feedback Help

Claus, Santa J (0000004) 63/M Visit Date: 2012-06-30 Procedure Selected: TKR - left

Procedure Clinical Summary Guidelines Risks Assessment Consent Schedule

Appropriateness Scores:

Total knee replacement	8	Confirm
Injection	5	Confirm
Non operative therapy	7	Confirm Non operative

Confirm CEA

Has the decision aid for this procedure been shared with the patient?

☒ Yes ☐ No

Submit Cancel

Risk Scores:

Risk of Stroke or Death in Hospital for CAS: 2.2 %

< Back - Risks Print EHR Note References Next - Consent >

Next steps

- Elective surgery/procedures
 - Feedback report to surgeons that includes patients' goals (for visit and related to treatment)
 - Cardiology to examine decisions about stents
- Mental health initiative in collaboration with primary care practices
 - Depression, anxiety and insomnia
 - All annual patients screened for depression
- Expanding efforts across Partners Healthcare (7 hospital, 2 rehab centers, 300 primary care practices)

Summary

- **Tonsils:** clinical appropriateness \neq medical necessity
- **Difficult patients...and magical thinking:** significant culture change required to achieve high quality medical decisions
- **Hips and knees:** concerted efforts that bring together stakeholders at all levels can lead to measurable improvements



**“There is nothing so useless as
doing efficiently that which
should not be done at all.”**

- PETER F. DRUCKER

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- Informed Medical Decisions Foundation/Healthwise
- Gordon and Betty Moore Foundation
- Massachusetts General Hospital Physician's Organization
- Partners Healthcare

Our project team and collaborators

Health Decision Sciences Center	Blum Patient and Family Learning Center
John D. Stoeckle Center for Primary Care Innovation, MGH	General Medicine Division, MGH
Informed Medical Decision Foundation and Healthwise	MGH Lab of Computer Science
Health Dialog	Massachusetts General Physicians Organization
Partners Healthcare	

Websites

Ottawa Health Research Institute (inventory of patient decision aids) <http://decisionaid.ohri.ca/azinvent.php>

MGH Health Decision Sciences Center:
<http://www.massgeneral.org/decisionsciences/>

International Patient Decision Aids Standards:
<http://ipdas.ohri.ca/>