



# Helping patients understand Cochrane reviews; why and how?

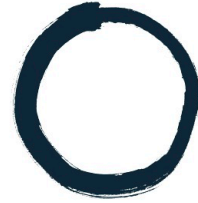
Martin J Burton  
Consultant Otolaryngologist, Oxford University Hospitals  
Director, UK Cochrane Centre



Better Doctors, Better Patients,  
Better Decisions

Envisioning Health Care 2020

EDITED BY  
Gerd Gigerenzer and  
J. A. Muir Gray



STROHMANN FORUM REPORTS



“Shared decision making (SDM) is a collaborative process that allows patients and their providers to make health care treatment decisions together, taking into account the best scientific evidence available, as well as the patient’s values and preferences.”



“At the heart of the shared decision-making approach is the recognition that professional knowledge is necessary but not sufficient for good decision-making. The patient’s personal knowledge about what matters most is often as or more important.”

Mulley, AG, Wennberg JE  
Reducing unwarranted variation in clinical practice by supporting clinicians and patients in decision making.  
In: Better doctors, better patients, better decisions. Gigerenzer G, Gray JAM, 2011, MIT Press



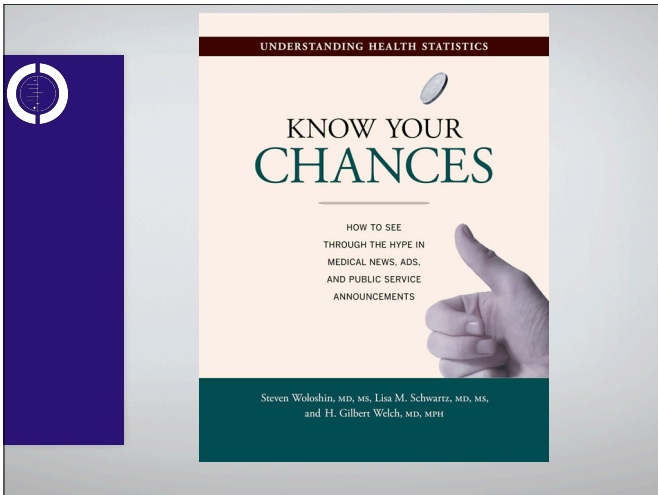
## Promoting better shared-decision making

- Improving numeracy amongst patients
- Improving public understanding of healthcare research



## Promoting better shared-decision making

- Improving numeracy amongst patients
- Improving public understanding of healthcare research
- Improving numeracy amongst doctors
- Improving understanding of healthcare research by physicians



A person taking Drug A has a 1% chance of having an allergic reaction. If 1,000 people take Drug A, how many would you expect to have an allergic reaction?

A person taking Drug A has a 1% chance of having an allergic reaction. If 1,000 people take Drug A, how many would you expect to have an allergic reaction?

A person taking Drug B has a 1 in 1,000 chance of having an allergic reaction. What percentage of people taking Drug B will have an allergic reaction?

A person taking Drug A has a 1% chance of having an allergic reaction. If 1,000 people take Drug A, how many would you expect to have an allergic reaction?

A person taking Drug B has a 1 in 1,000 chance of having an allergic reaction. What percentage of people taking Drug B will have an allergic reaction?

Imagine that I flip a coin 1,000 times. What is your best guess about how many times the coin would come up heads in 1,000 flips?

	US Adults ages 35-70 n=450	Postgrad. degree n=62	US Adults ages 26-69 n=1009	German adults ages 25-69 n=1001
% Correct answers				
Convert 1% to 10 in 1,000	70			
Convert 1 in 1,000 to 0.1%	25			
Heads in 1,000 coin flips	76			

	US Adults ages 35-70 n=450	Postgrad. degree n=62	US Adults ages 26-69 n=1009	German adults ages 25-69 n=1001
% Correct answers				
Convert 1% to 10 in 1,000	70	82		
Convert 1 in 1,000 to 0.1%	25	27		
Heads in 1,000 coin flips	76	86		

	US Adults ages 35-70 n=450	Postgrad. degree n=62	US Adults ages 26-69 n=1009	German adults ages 25-69 n=1001
% Correct answers				
Convert 1% to 10 in 1,000	70	82	58	68
Convert 1 in 1,000 to 0.1%	25	27	24	46
Heads in 1,000 coin flips	76	86	73	73

Are doctors really bad at stats?  
numbers

Statistical illiteracy in doctors

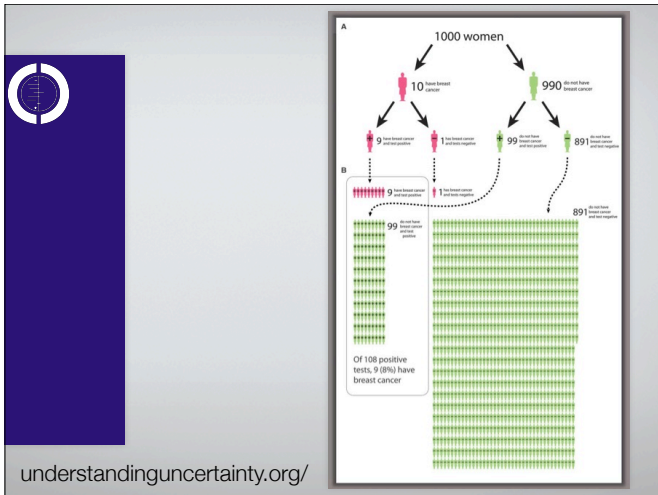
My doctor

- doesn't pay enough attention to my feelings
- doesn't listen carefully
- takes too little time with me
- doesn't tell me everything
- isn't as good as they should be at statistics

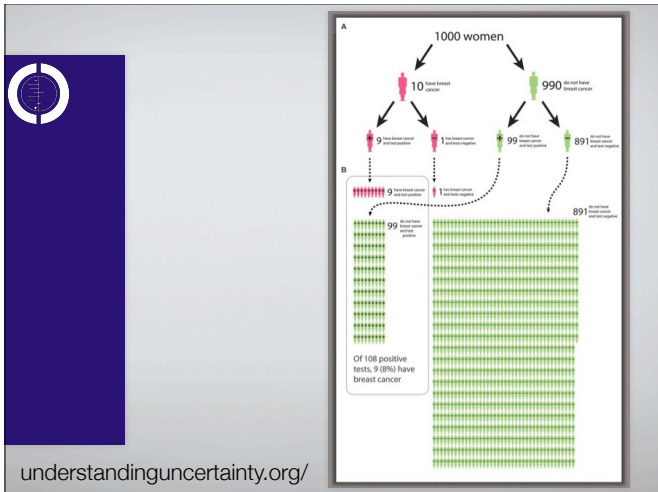
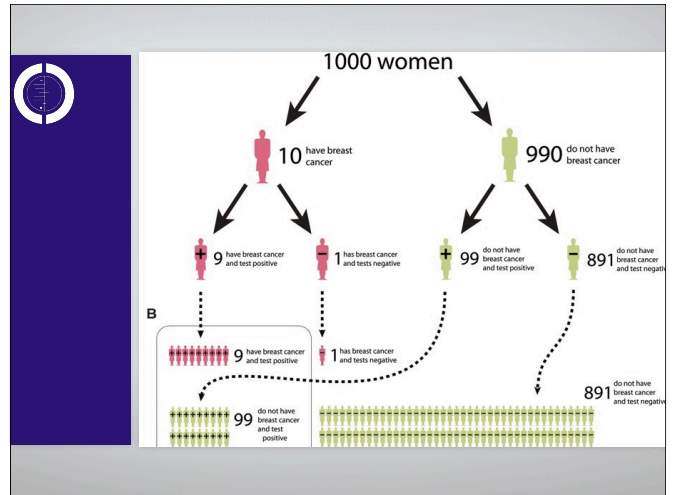
Physicians			
% Correct			
Convert 1% to 10 in 1,000	✓	All three correct	
Convert 1 in 1,000 to 0.1%	✓		
Heads in 1,000 coin flips	✓		

Physicians			
% Correct			
Convert 1% to 10 in 1,000	✓	All three correct	
Convert 1 in 1,000 to 0.1%	✓	72%	
Heads in 1,000 coin flips	✓		

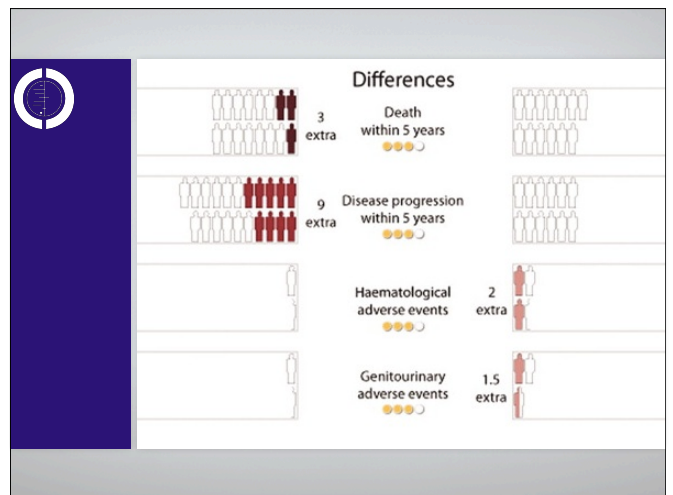
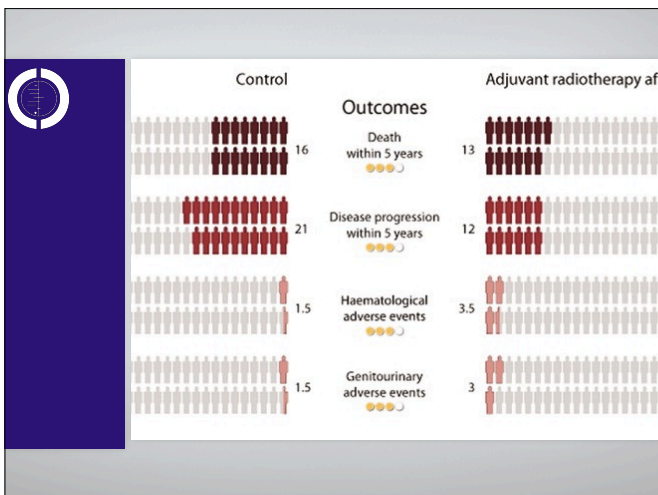
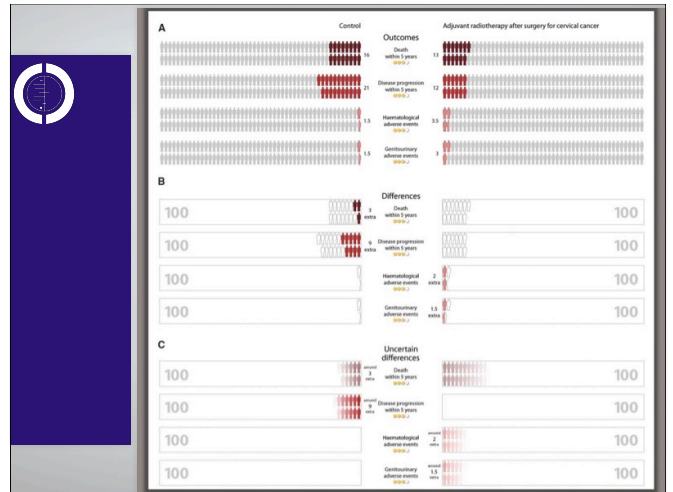
Presenting data in ways that  
patients can understand

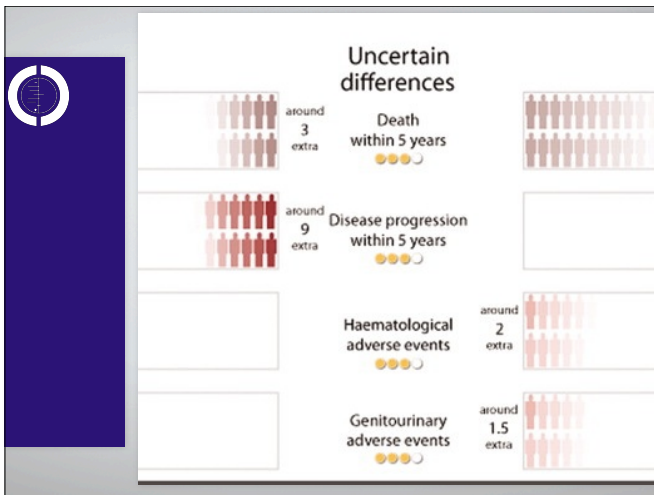


understandinguncertainty.org/



understandinguncertainty.org/





Educating patients so they can understand better

**US Cochrane Center**

**Free Online Courses**

Free Online Courses offered by the US Cochrane Center

- Understanding EBHC** (JUST LAUNCHED!)
- The FDA
- Serving on a Clinical Practice Guideline Panel
- Understanding EBHC for Physicians

**Understanding EBHC**

**Understanding Evidence-based Healthcare: A Foundation for Action**

**Understanding EBHC for Physicians**

**Understanding Evidence-based Healthcare: A Foundation for Action – Course for Physicians**

Plain language summary in Cochrane reviews

- The plain language summary (formerly called the 'synopsis') aims to summarize the review in a straightforward style that can be understood by consumers of health care.
- Plain language summaries are made freely available on the internet, so will often be read as stand-alone documents.
- Plain language summaries have two parts: a plain language title (a restatement of the review's title using plain language terms) and a summary text of not more than 400 words



## Plain language summary in Cochrane reviews

A statement about why the review is important: for example definition of and background to the healthcare problem, signs and symptoms, prevalence, description of the intervention and the rationale for its use.

- The main findings of the review: this could include numerical summaries when the review has reported results in numerical form, but these should be given in a general and easily understood format. Results in the plain language summary should not be presented any differently from in the review (i.e. no new results should appear in the summary). Where possible an indication of the number of trials and participants on which the findings are based should be provided.
- A comment on any adverse effects.
- A brief comment on any limitations of the review (for example trials in very specific populations or poor methods of included trials).



## Plain language summary in Cochrane reviews

A statement about why the review is important: for example definition of and background to the healthcare problem, signs and symptoms, prevalence, description of the intervention and the rationale for its use.

- The main findings of the review: this could include numerical summaries when the review has reported results in numerical form, but these should be given in a general and easily understood format. Results in the plain language summary should not be presented any differently from in the review (i.e. no new results should appear in the summary). Where possible an indication of the number of trials and participants on which the findings are based should be provided.
- A comment on any adverse effects.
- A brief comment on any limitations of the review (for example trials in very specific populations or poor methods of included trials).



## The challenges

- How to make risk (and odds) understandable to patients
- How to convey certainty and uncertainty
- How to demonstrate the balance between benefits and harms