







COMMON CHALLENGES TO EFFECTIVE RISK COMMUNICATION

Communicating risk is challenging for myriad reasons, including all the factors that can influence someone's understanding and perception of risk.

-  **Limited face time with patients.**
-  **Lack of effective cardiovascular risk communication training and skills development in medical school curriculum or continuing medical education.** Risk communications isn't something that is taught, yet so much of cardiology care is driven by assessment of risk.
-  **Risk is an abstract and multi-dimensional concept.** Most patients have a hard time understanding cardiovascular risk or retaining the information.

Limitations in health literacy and numeracy among patients play a role as many patients are reluctant to admit a lack of understanding and ask for clarifications. Similarly, clinicians often do not assess and/or adapt how they deliver risk communications to an individual patient's literacy or numeracy level.
-  **Risks and benefits aren't always straightforward, especially in the presence of comorbidities.** In these cases, risk discussions are much more nuanced and should be informed by patient goals and help them to sort through and weigh options.
-  **Overall, patients aren't very good at accurately estimating their cardiovascular risk, so there may be a disconnect between what they believe and what they are told.** People tend to under- or over-estimate their risk of cardiovascular disease and complications. Women, for example, consistently worry more about being diagnosed with cancer than cardiovascular disease, and only a small percentage can correctly identify symptoms that could signal a cardiac event
-  **Insufficient time or know-how on the part of the care team to adjust risk communications to account for the multiple factors that can affect a patient's acceptance or perception of risk.** *(Potential influencers are outlined on the next page.)*

The famous adage, “An ounce of prevention is worth a pound of cure” doesn’t much matter if people don’t understand the health information that helps them lower their personal disease risk. The reality is that when risk isn’t communicated well or at all, it can cause undue harm.

KEY INFLUENCERS ON PATIENTS' PERCEPTION OF RISK



Positive patient-clinician relationship built on trust. Patients report that trust in their care team – especially the person who initiates cardiovascular risk discussions – is a critical component to their acceptance and understanding of risk, as well as their readiness to ask questions and share their preferences.

Emotions. Patients' emotional response to disease can define how they interpret risk and the degree to which they believe they can manage it. Research shows that anxiety, which understandably accompanies a diagnosis of cancer, cardiovascular disease and many other illnesses, is associated with misconceptions of risk.

Because many risk discussions occur in the context of a new diagnosis or progressive disease, whether it's heart failure, valve disease, coronary artery disease or atrial fibrillation, patients often feel frightened, out of control or overwhelmed. The first order of business is to validate the patient's emotions and talk through them. Once these emotions cool down, the patient can engage in making more complete decisions. Seeing risk through this emotional lens can help clinicians better understand

their patients and realize the importance of better tailoring risk discussions to the individual patient.

Readiness to know more. Some people may need time to digest and accept new medical realities before risk(s) (e.g., risk reduction, risks of treatments or of not taking action) can be fully understood.

Risk perception research finds that people are often more afraid of a risk when it's first presented. Unless patients have an emergent situation that requires immediate open-heart surgery or other interventional procedure, there may be some value in waiting until a follow up visit for more in-depth risk discussions

Personality. By nature, some people are more fatalistic, while others are more hopeful and optimistic. Some patients want to be equal partners in shared decision-making; others prefer to rely more on their medical team for guidance. Some patients are risk tolerant, while others are risk averse. Risk discussions should be informed by who the patient is on these dimensions.

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Prior beliefs or experiences. Patients may have family, neighbors or colleagues who have faced similar diagnoses or treatments and, as a result, those experiences may anchor their views.

Lack of symptoms. This may be the case, for example, with people with hypertension or high cholesterol, yet varying degrees of atherosclerotic disease could be evident.

Competing priorities. Other medical conditions and life demands can interfere with how someone interprets health information, as well as what they are able to commit to reducing their risk.

How risk is presented. Clinician's choices of how to present risk matters. Risk can be framed in different ways, which can invariably influence how it is perceived and what patients do with the information. For example, emphasis can be placed on:

- The losses of a particular screening, behavior change or treatment over the gains. For example, the risk of:
 - Dying vs surviving (e.g. 3% mortality rate vs 97% survival rate)
 - Having a stroke vs not
 - Experiencing side effects vs not
- Probability vs frequency.
- Relative vs absolute risks, which can affect how someone understands the magnitude of the difference. Research shows it's best to give both. For example:

Relative Risk
Medication X reduces the risk of stroke by 50 percent (it cuts the risk in half).
Absolute risk
Medication X reduces the risk of stroke from 2 chances out of (a 2% risk) 100 to 1 out of 100 (a 1% risk).

How someone responds to risk may depend on:

- How familiar they are with cardiovascular disease or treatments
- Their sense of control and beliefs about whether they can actually minimize harms to their heart or further disease progression
- Personal experience
- Anxiety level, risk tolerance

Health literacy. Even the simplest explanations of a disease risk or treatment can become exponentially more complicated and muddled by medical jargon. Health literacy has been defined as a person's ability to obtain, read, process and understand basic health information needed to make appropriate health decisions. People deemed to have lower health literacy tend to be more vulnerable to developing health problems and are less likely to recall or comprehend health information, including numbers.

To help patients digest cardiovascular risk information and subsequent recommendations, use simple language and follow up measures (e.g., teach back method) to assess their level of understanding. Research finds many clinicians believe that they are using simple language when, in fact, they are not. For additional tools, visit <https://www.cdc.gov/healthliteracy>.

Numeracy. Numeracy refers to the ability to understand and use numbers. Risk is fundamentally a mathematical concept so numbers, including frequencies, probabilities and percentages, often enter into discussions. Even measuring blood pressure and tracking the change(s) over time, taking daily weights and reading nutrition labels involve math.

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Addressing Health Literacy Is Central to Improving Cardiovascular Risk Communications

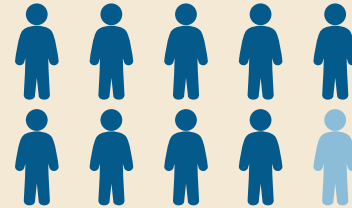
According to the U.S. Department of Human Services, Office of Disease Prevention and Health Promotion, health literacy can affect a person's ability to:

- Understand probability and risk
- Engage in self-care and chronic disease management
- Share personal information, including health history with care team
- Navigate the health care system, including filling out complex forms and locating services

People with limited literacy skills tend to have higher rates of chronic disease and are less able to optimally manage them. They are also more likely to:

- Skip preventive health screenings
- Report poor health
- Be sicker by the time they seek care
- Have higher rates of preventable hospitalizations
- Experience medical errors after leaving the hospital
- Lack health insurance

Nearly 9 out of 10 U.S. adults may lack the skills needed to manage their health and prevent disease, according to the National Assessment of Adult Literacy.



Who is most at risk for low literacy?

- Patients over 80 years of age
- Minority populations
- Those who are less educated (though even highly educated people can find health information, probabilities and risk difficult to understand)
- Anyone diagnosed with chronic, complex or comorbid health problems

Source: *Health Literacy and Health Outcome*, Office of Disease Prevention and Health Promotion, Institute of Medicine, Agency for Healthcare Research and Quality