

Application of Evidence to Decision Making

Barnett S. Kramer, M.D., M.P.H.

Office of Disease Prevention, National Institutes of Health, Department of Health and Human Services, Bethesda, MD

Distinguishing what makes sense from what we know is often no easy task for health professionals or for the public. Application of what we think we know to medical and public health policy adds additional complexity. This process may be particularly difficult in application to the elderly, in whom some interventions can produce unintended harms because of diminished physiologic reserves. For this reason, it is important to consider formal levels of evidence in judging interventions that can affect very large numbers of people, especially in the primary prevention and screening settings, in which the target populations are asymptomatic. The talk will discuss the hierarchy of evidence, analytic frameworks, and confounding factors that can severely affect weak study designs. The translation of these levels of evidence into public health practice also will be discussed. Challenges for future research will be how to most effectively incorporate formal methods of weighing evidence into policy and into the practice of health professionals.

References:

- 1. Prorok PC, Kramer BS, and Gohagan JK: Screening theory and study design: the basics in: Cancer Screening: Theory and Practice. pp. 29-54. Eds. BS Kramer, JK Gohagan, PC Prorok, Marcel Dekker, Inc., New York (1999).
- 2. Harris R: Decision-making about Screening: individual and policy levels. Ibid (pp. 55-76).
- 3. Kramer BS and OW Brawley: Cancer Screening in: Hematology/Oncology Clinics of North America: Understanding Clinical Trials. eds.: BS Kramer and CJ Allegra (Vol. 14, No. 4, pp. 831-846). WB Saunders, Inc. Philadelphia (2000).
- 4. http://consensus.nih.gov