The Biggest Bang for the Buck:
A Conversation With
Barbara Starfield, M.D., M.P.H.

Sallie Rixey, M.D.

The following is a conversation that occurred in early July 2008 between Barbara Starfield, M.D., M.P.H., one of the world’s leading health care researchers, and Sallie Rixey, M.D., Residency Director, Department of Family Medicine, Franklin Square Hospital. The conversation occurred following Dr. Starfield’s presentation to the Maryland Health Care Commission’s Task Force on Health Care Access and Reimbursement.

Rixey: How does primary care enter into the debate over workforce?

Starfield: Hundreds of studies at multiple levels consistently demonstrate that health care systems based on primary care have better health outcomes, at lower costs, and achieve greater equity.

Rixey: You often speak about “the three E’s” — effective, efficient, and equitable. Can you discuss these?

Starfield: We know that having more primary care physicians decreases inpatient admissions, outpatient visits, emergency room visits, and surgeries. We know that the primary care physician supply in counties and states throughout the United States is consistently associated with improved health outcomes (all-cause, cancer, heart disease, stroke, infant mortality, low birth weight, life expectancy, self-rated health). We know this is true in both industrialized and developing countries.

Rixey: From your research, how does primary care bring value to the table?

Starfield: The value is realized when all four functions of primary care are operationalized. The first contact must be with the primary care provider.

Rixey: Not after the emergency department and CAT scan?

Starfield: Exactly. And the care must be person-focused, not disease-focused, and longitudinal over time.

Rixey: The best scenario is family-focused. My favorite experience with a medical student is to share an encounter with one of my four-generation families. The students see the ultimate in shared decision-making, based on familiarity, trust, and choice.

Starfield: Which brings us to the third function: your ability to care for four generations is based on your comfort and ability to deliver comprehensive care for all common problems.

Rixey: Feeling competent to deliver comprehensive care has become harder and harder. In the 30 years I have been in family medicine, as the science of medicine exploded, there has been a shift towards a disease focus. This results in the belief that specialists do give better care. To a degree, we may have bought into this belief and abdicated a bit. The fear of litigation hasn’t helped either.

Starfield: [Elias A.] Zerhouni [Director of the National Institutes of Health] says that there are 6,600 medical rubrics in the ICD-9 coding system, and all but 600 are rare. Primary care must adequately recognize and manage the common conditions
and do so with low case mix-adjusted referral rates. This brings us to the fourth function, primary care that we must then coordinate with specialty care for problems that are uncommon.

Rixey: So how is all of this measured?

Starfield: That is a key question. The National Center for Quality Assurance focuses on structures of care. There are 230 of them (tracking systems, electronic prescribing, access, care management with surrogate markers of care such as A1Cs). As we go forward with the medical home concept, we need better quality measures of the functions of care. Then we can incent medical homes that achieve the functions (not merely the structure) of primary care. The limitations of current assessments of primary care include no assessment of problem recognition, overemphasis on quality of care for specific diseases, no assessment of person-focused measures. The concept of coordination is underdeveloped and we need adequate assessments of comprehensiveness, because the more comprehensive the care, the more the value.

Rixey: Let’s talk more about the importance of comprehensive care.

Starfield: The more different doctors, specialists, or generalists, seen, the higher total costs, medical costs, diagnostic tests, false positive results, and interventions. In the United States, referral rates from primary care to specialty care are high. This does not downplay the importance of specialists who provide tertiary care. We have referral centers that offer a high degree of specialization. What we don’t need is for specialists to do routine follow-up of common problems. Above a certain level of specialist supply, the more specialists per population, the worse the outcome and the higher the cost. There are large variations in both costs of care and frequency of interventions. Areas with high use of resources and greater supply of specialists have neither better quality of care nor better results from care. Specialists do a better job of adhering to disease-oriented guidelines; it is the outcomes that matter. What we need to know is what specialists contribute to population health, the optimum ratio of specialists to population, the functions of specialty care, the appropriate division of effort between primary and specialty care, and the point at which an increasing supply of specialists becomes dysfunctional.

Rixey: By definition, family medicine has the potential to fit your description of primary care best because the training is the most comprehensive. Our accrediting body mandates that training encompass all of the specialties — behavioral medicine, obstetrics, pediatrics, adult medicine and geriatrics, orthopedics, ENT, ophthalmology, urology, gynecology, neurology, dermatology, gastroenterology, pulmonary, and infectious disease medicine — in a variety of settings, from the hospital to the home. Family practice doctors are trained to do home visits, nursing home visits, and palliative care, inject knees, repair lacerations, insert IUDs, aspirate cysts, remove toenails, deliver babies, immunize everyone, look at your vocal cords and hemorrhoids, some even pull teeth, and much more. Common things are common, and that is our scope.

Starfield: You should write a book!

Rixey: How about four short stories instead. Zubialde describes four quadrants of care: acute/simple, acute/complex, chronic/simple, and chronic/complex. I’ll tell a story for each quadrant and you tell me which one passes the 3E test...that is, efficient and effective, leaving resources for equitable care in the system.

Acute/Simple. “A.S.” is a 35-year-old woman brought to me by her son. She had 12 diagnoses, takes 15 medications, and referred to two specialists. She has already been seen twice by the ENT, not for procedures — only follow-up. I learned of this when she called for a neurology consult to evaluate her facial pain (which had resolved). She hadn’t called earlier because she knew I was away with my father’s illness.

Chronic/Complex. “C.C.” is an 84-year-old brought to me by her son. She had 12 diagnoses, takes 15 medications, and has been seen by an internist, an endocrinologist, a cardiologist, a neurologist, an ophthalmologist, a hematologist, and a dermatologist — all actively seeing her and prescribing medications. Despite the fact that her surrogate markers were being addressed by one guideline or another (dext scan, A1C, lipids, INR, H&H, etc.), she was having more frequent hospitalizations. Her pain, ability to drive, and quality-of-life issues, along with her children’s concerns about the future, were not being addressed. After many unreimbursed hours of conversations with the family and her specialists, we are now discussing palliative care with a goal to avoid future hospitalizations.

Complex/Acute. “C.A.” is an active 80-year-old woman. I care for her daughters, son-in-law, sister, and brother-in-law and managed the end-of-life care of her other brother-in-law. She just returned from a trip to Asia (we managed the travel medicine together as well) when she presented to the emergency room physician with acute cholecystitis. She was admitted to the family medicine service to manage her co-morbidities. Her gallbladder was removed by one of our favorite general...
surgeons, and she was sent home to follow up with both the surgeon and with me. **Starfield:** Who or what influenced you to go into family medicine?

**Rixey:** Remember the 1970s? I was a Teacher Corps middle school science teacher in rural Kansas. We were involved in every aspect of the community, trying to make a difference. Then I moved to Denton, Kansas, next door to Doctor Yoder. He took care of everyone in town, delivered generation after generation of babies, performed nursing home and home visits, cared for patients in the hospital, and first assisted in surgeries. He was Marcus Welby, M.D. We all grew up watching that T.V. show. I knew I could manage the $4,000 debt load, so I went to University of Kansas School of Medicine. I never considered any other specialty. Students today have never heard of Marcus Welby. They grew up watching **ER.** The media is powerful. It glamorizes fast-paced, high-tech drama rather than therapeutic relationships and home visits for students and patients alike.

**Starfield:** What discourages students from choosing family medicine?

**Rixey:** A recent article in the New England Journal of Medicine explores the idea that primary care is possibly a “fool’s errand.” I believe students pick up on this message in medical school. They are told they are too smart to do family medicine and that it really isn’t possible to do the scope of family medicine adequately. They see primary care providers ridiculed. It is easy to criticize the efforts of the first-contact provider when you have the benefit of hindsight. This happens all too often in academic centers. There is too little exposure to the Dr. Yoders of the world because there are not enough of them. It is unfortunate that the confidence to do it all is rarely instilled in our students today.

Instead of confidence, there is fear. Fear of not knowing enough or doing enough. Fear of adverse publicity for not meeting surrogate performance markers, or worse, being taken to court. Fear that comes from a multitude of mandates to apply what is known. You and I know that what is known, and the ensuing guidelines that are recommended by experts, is often not patient-oriented, not evidence-based, not generalizable, and is primarily financed by industry.

Students today owe a great deal of money when they complete training and they want to be able to earn that money back. They know that payers have placed tremendous barriers to being reimbursed for comprehensive care and care coordination, exactly what is needed and what attracts people to family medicine. None of us went to medical school to learn to make sense of an ever-changing coding system.

**Starfield:** Why not give up on family medicine?

**Rixey:** I can give you two reasons. First, there are too many families in this country who lack access to health care. And the more jobs that are lost, the more families will be added to the roster of the uninsured. Our Health Care for the Homeless program is not filled with street-homeless schizophrenics. Instead, we may care for individuals rendered homeless because of medical bills and the inability to work after an injury. Eventually, the system will be reformed, and you, above all, know that the only reform we can afford will be primary care-based.

The second reason is the next generation of students. I believe that they understand the need for health care reform. They see the writing on the wall and financial motives are less of a draw to medical school. They value an understanding of economic principles and are more aware of system resources. They will build networks to study real outcomes of care. They are very facile with technology. Our job is to not try and bring back the fast-paced, high-tech drama rather than therapeutic relationships and home visits for students and patients alike.

**Starfield:** What can the states do?

**Rixey:** The question is, what can we do to shift the balance towards students choosing family medicine?

**Starfield:** Sallie, we cannot make primary care from within primary care. Our hope is that reform will take place at the state level.

**Rixey:** What can the states do?

---

**EDITORIAL BOARD**

**EDITORIAL BOARD MEMBERS NEEDED**

*Maryland Medicine* seeks new editorial board members. If you have some editorial and formal writing experience and are anxious to defend your profession, your medical heritage, and your patients’ rights, please contact managing editor Susan Raskin at sraskin@montgomerymedicine.org or 301.921.4300, ext. 17.