

Creating a Community-based System of Care That Promotes Health Through Innovation. *By R. Burciaga Valdez, PhD*

Challenges we face

Before new health care practices can be developed and introduced into primary and specialty care they must be evaluated through both basic and clinical research with diverse population groups. Because of the historically lower rates of participation in clinical trials by women and ethnically diverse groups, we are faced with the difficult challenge of meeting the complex healthcare needs of an ever more diverse U.S. population. The changing demographic profile of the U.S. population presents more pressing challenges for publicly and privately funded biomedical research. As our ethnic composition changes, we are pressed to better understand the health of certain populations given differences in diet, previous preventive clinical services, and social norms. Furthermore, the growing segments of the population, such as older women, of all racial and ethnic backgrounds, will present special challenges for health care delivery if research populations do not become more diverse. Most treatments and medications have been insufficiently evaluated for the aging, women or “racial and ethnic minorities.”

The benefits of increasing representation of diverse populations in the clinical research include robust hypothesis generation for research questions related to women and racial and ethnic minority populations, and the increased likelihood that clinical research benefits these “minority” communities. Only through wide participation of diverse populations in clinical research, both public and private, will we ultimately develop new products or services that are appropriate, safe and effective for all Americans, and not just a specific segment of our nation.

There are four main types of clinical trials:

1. Early Access Drug Trials: The FDA allows promising drugs to be used before final approval.
2. Manufacturer sponsored – Pre-approval: The more extensive manufacturer trials are Phase I – IIIa human clinical studies required for submission to the FDA for initial regulatory review and marketing approval. Pre-approval is of greatest concern because this is where safety and efficacy is established.
3. Manufacturer sponsored – Post-marketing: which includes the IIIb (pre-approval), labeling expansion under SNDA and the Phase IV (post-marketing (e.g.: safety surveillance))
4. Government-Sponsored Clinical Trials: Clinician researchers located in our nation’s finest Universities and Academic Health Centers, the center of our nation’s tertiary care, conduct the majority of these trials.

Increased participation of women and racially and ethnically diverse patients are critical for each of these types of clinical trials. Without, appropriately designed and inclusive clinical

trials we risk harming segments of our communities by introducing unsafe or ineffective medical products or regimes. Increasing ethnic, gender and age diversity will require significantly expanded sample sizes. Who should bear the cost? Currently, the public bears most of the cost of the failure to adequately design trials with greater diversity—health costs and financial costs.

Efforts to Diversify Clinical Trials

In order to truly evaluate safety and effectiveness, clinical trials must be conducted with the population(s) who will ultimately use the products. During my tenure as chair of the U.S. Department of Health and Human Services Data Council subcommittee on race and ethnicity, the Secretary established Departmental policy which was designed to “determine that Federal funds are being used in a nondiscriminatory manner” and to “promote the availability of standard racial and ethnic data across various agencies to facilitate HHS responses to major health and human services issues.”¹ The FDA’s response to this Departmental policy resulted in the issuance of guidance finalized in November 2005.² The FDA Guidance for Industry on the Collection of Race and Ethnicity Data in Clinical Trials is an important step forward in the identification of differences in physiological response among racial and ethnic subgroups during the evaluation of the safety and effectiveness of FDA regulated products. However, this Guidance only encourages that the data be identified according to race and ethnicity.

The Guidance fails to require the inclusion of racial and ethnic groups in study populations. The FDA Guidance does not even encourage the use of sub-samples of adequate size to ensure meaningful data about safety and effectiveness for those subpopulations. This is surprising considering the differences in response to medical products in racially and ethnically distinct groups of the U.S. have been well documented. When there is reason to believe that variation among racial or ethnic groups may influence the safety or effectiveness of a drug, biologic, or medical device, then the burden appropriately should shift to the manufacturer to include all relevant racial or ethnic groups in their studies.

Most clinical trials have included a limited segment of the U.S. population. Typically, research participants have been middle-class and married white males. This historic tendency does not help us understand the extent to which race and ethnicity makes a difference, recognizing that these social constructs capture historical and often subtle differences in environment – social and physical. Hence, it is crucial that we involve people of many backgrounds in our research to ensure that the products will be safe and will work in diverse populations. This holds true for all clinical trial research, whether the study product is a preventive or therapeutic vaccine or treatments for opportunistic infections.

The National Institute of Health requires that women and members of “minority groups” be included in all NIH supported

biomedical and behavioral research projects involving human subjects, unless a clear and compelling justification establishes that inclusion of these groups would be inappropriate with respect to the health of the human subjects or the purpose of the research. Unfortunately, the policy has not been vigorously implemented by the various Institutes. This mandatory requirement in clinical research recognizes the need to match study trial demographics with the demographics of those individuals that are likely to be served by the clinical innovation being tested. NIH must act systematically to ensure that this policy is implemented within each new grant or contract. The FDA should similarly require that all studies involving human subjects upon which FDA approval are based should demonstrate that the human subjects are representative of the target population intended to be treated by the medical product.

We are unsure of the extent to which gender matters but we have evidence that it frequently does. GSK developed a preventive vaccine against herpes simplex virus type II in a phase III trial (7400 participants) whose results appeared to indicate that the vaccine might be effective for women but not for men. However, there were not enough women enrolled in the trial to support this conclusion. As a result, researchers conducted another Phase III trial with 7550 women to assess the vaccine's effectiveness in women.³ Just think of the time, money, and women's suffering that could have been saved if only the first study had enrolled enough women!

Key issues in recruiting diverse populations into clinical trials, particularly ethnic and racial minorities have been fairly well described and identified elsewhere in this compendium. We should note that barriers exist for both patients and physicians and can be quite diverse, including language barriers, insurance and financial concerns, study design flaws, and inadequate numbers of minority researchers.

Reducing many of these barriers requires that we in the research community change the way we do business. These changes will require us to leave the comfortable confines of our Academic Health Center offices, clinics, and laboratories and to learn to work intimately with clinicians serving these diverse populations in their own communities. Clearly, addressing these issues cannot happen overnight, but rather we must work hard to create studies that take into account the real-life circumstances of patients and their medical care providers.

We can build important health care systems relationships through the conduct of clinical trials that will ultimately benefit low resource communities. Advancing the clinical trial research agenda is something that scientists can't do alone. Partnerships with community-based clinicians will enable the delivery of successful interventions, both preventive and therapeutic, to all populations when they become available.

FQHC's: An Innovative Partner

Chief among these community providers of health care are the Federally Qualified Health Centers, in part supported by grants

from the Health Services and Resources Administration's Bureau of Primary Care. Many FQHCs provide comprehensive primary care when and where it is needed most, in an affordable manner, in a language everyone can understand, with dignity and respect. More than 13.1 million patients were served by FQHCs in 2004, most members of "minority" populations. More than half of all FQHC patients are Latino and more than a third African American.

Most FQHCs strive to provide primary health care that is second to none through continuous quality improvement and innovation. So, FQHCs are natural partners for clinical trial research partnerships that would naturally increase representation of "minority" populations. FQHCs are community-oriented and community-responsive, driven by the needs of their community. Thus, clinicians who work in FQHCs become expert in the social and environmental issues affecting their patient's health and care. Clinical trials researchers could learn much from their practical experience just as the FQHC clinicians could learn from ongoing interactions with highly skilled AHC-based specialists.

FQHCs work to remove barriers to care by maintaining a multilingual staff that can competently deliver services to community members without reliance on outside translators. They often also have a team of social workers to help patients overcome the social barriers that keep them from good health and good health care. Through the efforts of their social workers, and in partnership with other community agencies, they often provide food assistance, nutritional counseling, psychological counseling, social service case management, extended support services to people living with HIV, home visits, patient education, and community prevention programs. They also help their patients obtain services from public assistance programs and other social service agencies.

Conclusion:

Clinical trial researchers could be at the forefront of building a real U.S. health care system in low resource high-density "minority" communities by partnering with key health care providers in these communities, especially FQHCs. Care networks composed of Federally Qualified Health Center, Academic Medical Center, Comprehensive Cancer Centers, and local Public Health and Environment

disease prevention divisions could offer a vertically integrated care system that would allow for the recruitment and inclusion of more "minority" patients into clinical trials. Many potential clinical trial participants acquire their primary care at Federally Qualified Health Centers and should have access to the benefits of a health care system that includes the advances offered by clinical trials. ●

References

1. HHS Policy for Improving Race and Ethnicity Data, October 24, 1997. www.hhs.gov/ocio/infocollect/inclusion. Accessed August 26, 2006.
2. Food and Drug Administration, Guidance for Industry Collection of Race and Ethnicity Data in Clinical Trials. www.fda.gov/CbER/gdlns/racethclin.htm. Accessed August 26, 2006.
3. See www.who.int/vaccine_research/diseases/soa_std/en/index3.html.

"Partnerships with community-based clinicians will enable the delivery of successful interventions, both preventive and therapeutic, to all populations."