The new National Dental Practice-Based Research Network and how it can benefit you and your patients

Gregg H. Gilbert, DDS, MBA, FAAHD, FICD for the National Dental PBRN Collaborative Group
Professor and Chair, Dept. of Clinical & Community Sciences
University of Alabama at Birmingham
Birmingham, Alabama, USA

National Network Director, National Dental PBRN

October 2, 2012; 4:30 PM – 5:30 PM

Support: NIH grant U19-DE-22516
What is a dental practice-based research network (PBRN)?

A group of dental practices that has affiliated to investigate research questions and to engage in sharing experiences and expertise.
What is a dental practice-based research network (PBRN)?

A group of dental practices that has affiliated to investigate research questions and to engage in sharing experiences and expertise.

The network conducts research that is done in and about the real world of daily clinical practice, where the overwhelming majority of the population receives its dental care.
How is PBRN research different from other types of research?

- Laboratory research
- Clinical trials in academic settings
- Practice-based research
- Community-based research
Rigorous but not relevant
Finally, a new era for oral health research!

Laboratory studies and clinical trials in academic settings can be ...

- scientifically sound

- statistically significant
Finally, a new era for oral health research!

Laboratory studies and clinical trials in academic settings can be...

- scientifically sound
- statistically significant

but...

- clinically useless
A knowledge explosion

(c)1995 The Cochrane Collaboration. Reprinted with permission
If we want more evidence-based practice, we need more practice-based evidence.

Lawrence W. Green, DrPH
Moving things forward with PBRNs

Better delivery of established therapies may save more lives than the next innovation in therapy.
Funding for the network

NIDCR is the U.S. government’s lead agency for scientific research on oral, dental, and craniofacial health and disease. NIDCR is one of the National Institutes of Health in the US Department of Health & Human Services.
NIDCR funded 3 networks from 2005-2012 to start dental practice-based research

Northwest PRECEDENT

Dental Practice-Based Research Network
www.DentalPBRN.org

PEARL Network
Practitioners Engaged in Applied Research and Learning
Sponsored by the National Institute of Dental and Craniofacial Research (NIDCR)
In 2005, many skeptics asked...

- Would we be able to recruit a large number of practitioners?
- Would we be able to establish the necessary regulatory and contractual relationships?
- Would busy clinicians be effective at doing studies in their practices?
- Would practitioner-investigators contribute ideas for research projects?
- Would they participate at every step of the research process?
In 2005, many skeptics asked...

- Would we be able to recruit a large number of practitioners?
- Would we be able to establish the necessary regulatory and contractual relationships?
- Would busy clinicians be effective at doing studies in their practices?
- Would practitioner-investigators contribute ideas for research projects?
- Would they participate at every step of the research process?

The answer was a resounding “Yes!” to all of these.
Some studies done from 2005-2012

- “Dental tobacco control randomized clinical trial”
- “Practice-based root canal treatment effectiveness”
- “Assessment of caries diagnosis and caries treatment”
- “Reasons for placing the 1st restoration on permanent tooth surfaces”
- “Reasons for replacement or repair of dental restorations”
- “Case-control study of osteonecrosis of the jaws”
- “Retrospective cohort study of osteonecrosis of the jaws”
- “Patient satisfaction with dental restorations”
- “Impact of participation in practice-based research on clinical practice and patient care”
- “Prevalence of questionable occlusal caries lesions”
- “Blood glucose testing in dental practice”
- “CONDOR TMJD study”
- “Development of a patient-based provider intervention for early caries management”
- “Peri-operative pain and root canal therapy”
Some studies done from 2005-2012

- “Infrastructure Update Survey”
- “Longitudinal study of dental restorations placed on previously un-restored surfaces”
- “Longitudinal study of repaired or replaced dental restorations”
- “Persistent pain and root canal therapy”
- “Diagnoses for persistent dentoalveolar pain following RCT”
- “Hygienists’ internet tobacco cessation randomized clinical trial”
- “Longitudinal study of questionable occlusal caries lesions”
- “Practice Impact Research Group 2011 survey”
With the success of each of the three networks, and the power of the CONDOR collaboration, NIDCR decided to fund a consolidated initiative for the next 7 years.
A network about, with, and for practitioner-investigators and their patients

The nation’s network

Practical science done for the immediate benefit of real-world clinical practice.
Practitioners are engaged at every step of the research process

- Generating ideas for studies
- Developing study design
- Designing data collection forms
- Feasibility testing
- Pilot testing
Practitioners are engaged at every step of the research process

- Data collection
- Data analysis
- Presentations
  - Local
  - Regional
  - National
- Manuscript preparation
The National Dental PBRN Regions

Western Region
Kaiser Permanente Center for Health Research

Midwest Region
HealthPartners Research Foundation

Northeast Region
University of Rochester
Rochester, New York

South Atlantic Region
University of Florida

Southwest Region
University of Texas Health Science Center at San Antonio

South Central Region
University of Alabama at Birmingham

The National Dental Practice-Based Research Network

the nation’s network
The Executive Committee

- The main decision-making body of the network
- Majority voting authority lies with the six practitioner-investigator representatives
Executive Committee

South Central Region
Dr. George Allen
Mobile, AL

Midwest Region
Dr. Vanessa Burton
Minneapolis, MN

Northeast Region
Dr. William Calnon
Chili, NY

Western Region
Dr. Walter Manning
Albany, OR

South Atlantic Region
Dr. George Ford
Atlanta, GA

Southwest Region
Dr. Claudia Cavazos
Laredo, TX
Research That Works: Dental PBRN

Initially I was skeptically curious about such a program, reasoning that if it worked theoretically, it would be either the insurance practically into daily dental practice. The practice-based approach to research hopes to produce study results that will be accepted and more readily adopted by practicing dentists, and thereby improve our patients’ oral health and add meaningfully to scientific evidence in a timelier manner.

The PBRN in which I participate is based in Birmingham at the University of Alabama and is one of the three funded by the National Institute for Dental and Craniofacial Research (NIDCR), National Institute of Health (NIH). The process itself can change how we practice dentistry in the future. I wholeheartedly believe that this kind of research can help us make better clinical decisions. As a result, we could see increased collaboration between academicians and clinical dentists working together to generate relevant research questions and discovering new ways to improve oral health.

A Day in the Life of One Dentist’s PBRN Participation
One study that I participated in was tracking “Why, when, and with what material would you as a dentist restore a previously unrestored tooth surface”, or, put another way, “What

Promoting Evidenced-based Dentistry through “The Dental Practice-Based Research Network”

Paul Benjamin, DMD, for the DPBRN Collaborative Group General Practice, Miami, FL

This article focuses on dental practice-based research networks (PBRNs) as one of the solutions to the oftentimes slow and inefficient process of translating research evidence into clinical practice. This article identifies two major issues that are faced when setting up a dental practice-based research network. Using a dental practice-based research network that the author is involved with as an example, this article then discusses what is involved in undertaking a research project in your office. Also discussed are the types of projects being done in this new setting and how this author believes these studies will be one of the bridges toward developing evidenced based dentistry in private practice.

Keywords:
Practice Based Research Networks (PBRN), National Institutes of Health (NIH), National Institute Dental and Craniofacial Research (NIDCR), Dental Practice-Based Research Network (DPBRN).
Levels of practitioner participation

- **Informational**: receive newsletters and correspondence

- **Limited**: receive newsletters and correspondence
  AND participate in surveys/questionnaires

- **Full**: receive newsletters and correspondence,
  participate in surveys/questionnaires,
  AND participate with in-office research
The enrollment process

• Complete the online Enrollment Questionnaire
http://NationalDentalPBRN.org
ENROLLMENT

The National Dental PBRN is enrolling new practitioners. The first step in the enrollment process is to complete a questionnaire about you and your practice. If you would like to complete the Enrollment Questionnaire, please click here. You will be asked to enter your email address and last name. An email will then be sent to you with a personalized link which will allow you to complete your questionnaire.

You can participate in research projects that benefit your practice with participation at one of three levels depending on your interest: 1. informational (receive newsletters and correspondence only); 2. limited (also participate in questionnaires); or 3. full (also participate in in-office clinical studies).

Practitioners who previously participated in the Dental PBRN, PEARL or PRECEDENT networks are asked to re-enroll because of revised enrollment questions, the need to update information, and submit study research ideas.

The questionnaire is completed electronically, but if you would like to see a printed version first, please click here. You can only complete the questionnaire if you have an email address.
Welcome to the National Dental PBRN Enrollment Questionnaire
Please enter your email address and last name below and click the "Submit".

Email Address:

Last Name:

Submit
The National Dental PBRN is enrolling new practitioners. The first step in the enrollment process is to complete a questionnaire about you and your practice. If you would like to complete the Enrollment Questionnaire, please click here. You will be asked to enter your email address and last name. An email will then be sent to you with a personalized link which will allow you to complete your questionnaire.

You can participate in research projects that benefit your practice with participation at one of three levels depending on your interest: 1. Informational (receive newsletters and correspondence only), 2. limited (also participate in questionnaires), or 3. full (also participate in in-office clinical studies).

Practitioners who previously participated in the Dental PBRN, PEARL or PRECEDENT networks are asked to re-enroll because of revised enrollment questions, the need to update information, and submit study research ideas.

The questionnaire is completed electronically, but if you would like to see a printed version first, please click here. You can only complete the questionnaire if you have an email address.
Benefits of participating as communicated by practitioner-investigators

• Projects contribute to the improved quality of dental care by contributing to the scientific basis for the dental procedures that are their focus.

• Expands the vision for patient care by including a formalized research and quality improvement component.

• Provides a focus for clinical excellence by devoting attention to one particular area of clinical practice at a time.
Benefits of participating as communicated by practitioner-investigators

• Improves the logistics of daily operations by providing short-term attention to specific areas of clinical practice

• Practitioner-investigators decide what studies are done and what treatment is done - not third parties

• Enhances communication with patients by showing that the practitioner-investigator cares about the scientific basis of clinical practice

• Serves as a team builder for practice staff by engaging the entire staff in the excitement of discovery and quality improvement
Benefits of participating as communicated by practitioner-investigators

- Allows practitioner-investigators to see what is effective in their practices, and compare to other practices, using anonymously presented results.

- Potential to present at local, state, and national dental meetings and research conferences.

- Distinguishes the practice from other practices, thereby acting as a practice promoter or practice builder.

- Increases the practice's visibility and stature among dental patients.
Benefits of participating as communicated by practitioner-investigators

- Provides venues for collegial interactions and exchange of ideas with fellow practitioner-investigators; become part of a community of learning and camaraderie

- Receive financial remuneration for research time

- Receive CE credit for attendance at network annual meetings and participating in training and certification activities for specific network studies

- Receive certificates suitable for framing and display in the office
Interact and stay connected

- Attend annual meetings of practitioner-investigators
  - held in each region
  - ‘talk shop’ with fellow practitioners
  - discuss study results
  - participate in long-range planning
  - develop new study ideas

- Participate in studies
- Serve on committees or planning entities
- Give presentations at clinical and research meetings
- Participate in manuscript preparation for publication
- Stay current with monthly e-updates and newsletters

[The National Dental Practice-Based Research Network]
“My staff and I were delighted to be a part of the study on blood glucose levels. .. The patients were receptive to the idea of being able to know if their blood glucose level was within normal range... Our patients were impressed to know that we place great emphasis on their total health by participating in the study. The staff enjoyed being part of the study ...”

Adolphus Jackson, DMD, Birmingham, AL
Interact and stay connected

Website  http://nationaldentalpbrn.org/

Facebook  http://www.facebook.com/pages/National-Dental-Practice-Based-Research-Network-NDPBRN/126966417368332?v=wall

Linked-in  http://www.linkedin.com/groups/National-Dental-PracticeBased-Research-Network-3723139?mostPopular-&gid=3723139

Twitter  http://twitter.com/#!/DentalPBRN

YouTube  http://www.youtube.com/user/DentalPBRN/
THANK YOU for your interest.

Any questions?