
NIDCR - Sponsored Practice-Based Research Networks (PBRN)

**Designed to gather “real-world” evidence for the
prevention and treatment of oral diseases**

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Dental Practice-Based Research Networks - Purpose

- **Answer questions facing general dental practitioners in the routine care of their patients**
 - **Strengthen knowledge base for making clinical decisions**
 - **Observational studies**
 - **Clinical trials**
 - **Establish/use a flexible, adaptable electronic network/platform for connectivity, data sharing, & communication within and between dental and medical networks**
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Dental Practice-Based Research Networks

- **Ideas to be generated by practicing dentists and dental hygienists (i.e., practitioner-investigators)**
 - **Primary objectives:**
 - **Conduct 16-22 short-term clinical studies over 7 years**
 - **Emphasis on effectiveness of oral health treatment & disease prevention**
 - **Clear & clinically meaningful outcomes**
 - **Secondary objective: Provide data on disease and treatment trends and obtain estimates of the prevalence of less common conditions**
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Dental Practice-Based Research Networks

- Establishes partnership between practitioners and experienced researchers
 - PBRN's conduct research in the real world of dental practice
 - Draw on experience & insight of practitioners to help identify and frame questions
 - Findings likely to be immediately relevant to dental practice
 - Results are likely to be accepted and implemented in dental practice
 - Certain types of studies can be conducted more cost-effectively than if supported as stand-alone studies
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Dental Practice-Based Research Networks

- **Many questions faced by dentistry are most appropriately addressed in practice-based dental settings**
 - **Dental PBRNS may implement protocols developed by one another**
 - **To prevent duplicity of studies in NIDCR portfolio, Dental PBRNs provide NIDCR a summary of prospective protocol prior to development**
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Dental Practice-Based Research Networks

- At least 100 dental practices per Dental PBRN will be recruited to participate during the first year of operations.
 - Each PBRN will involve large numbers of practitioner-investigators in at least two population centers.
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Participating PBRN Dentists (n ≈ 400) by U.S. State (24) & Countries (3) after First Year

- **Alabama** 
- **Connecticut** 
- **Delaware** 
- **Florida** 
- **Georgia** 
- **Idaho** 
- **Maryland** 
- **Massachusetts** 
- **Minnesota** 
- **Michigan** 
- **Mississippi** 
- **Montana** 
- **New Hampshire** 
- **New Jersey** 
- **New York** 
- **Ohio** 
- **Oregon** 
- **Pennsylvania** 
- **Rhode Island** 
- **Utah** 
- **Virginia** 
- **Vermont** 
- **Washington** 
- **Washington DC** 
- **Scandinavia** 
 - Sweden
 - Denmark
 - Norway

Dental Practice-Based Research Networks – Organization

- **Network Chair**
 - **Coordinating Center**
 - **Executive Committee**
 - **NIDCR Staff**
 - **Protocol Review Committee**
 - **IRB**
 - **DSMB (Phase III Trials)**
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Dental Practice-Based Research Networks – Executive Committee

Composition

- **Network Chair**
 - **PI of Coordinating Center**
 - **5-6 elected practitioner-investigators**
 - **NIDCR staff**
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Dental Practice-Based Research Networks – Executive Committee

Responsibilities

- **Executive and administrative arm of PBRN**
 - **Main governing body of PBRN**
 - **Prioritizes research topics for submission to Protocol Review Committee**
 - **Reviews and approves protocols prior to submission to Protocol Review Committee**
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Dental Practice-Based Research Networks – Practitioner Investigators

- **PBRN trained and certified dentists and dental hygienists engaged in daily practice**
 - **From more than one state and population center**
 - **Representative of gender / racial / ethnic distribution of PBRN region**
 - **Limited number may be from outside U.S. if standard of dental care is comparable to that in U.S**
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Dental Practice-Based Research Networks – Practitioner Investigators

Roles and Responsibilities

- **Participate in Annual Meeting**
 - **Elect representatives to Executive Committee**
 - **Suggest studies to Executive Committee**
 - **Contribute to protocol development**
 - **Conduct studies in their practices**
 - **Conform to IRB, DSMB, HIPAA regulations**
 - **Contribute to manuscript preparation**
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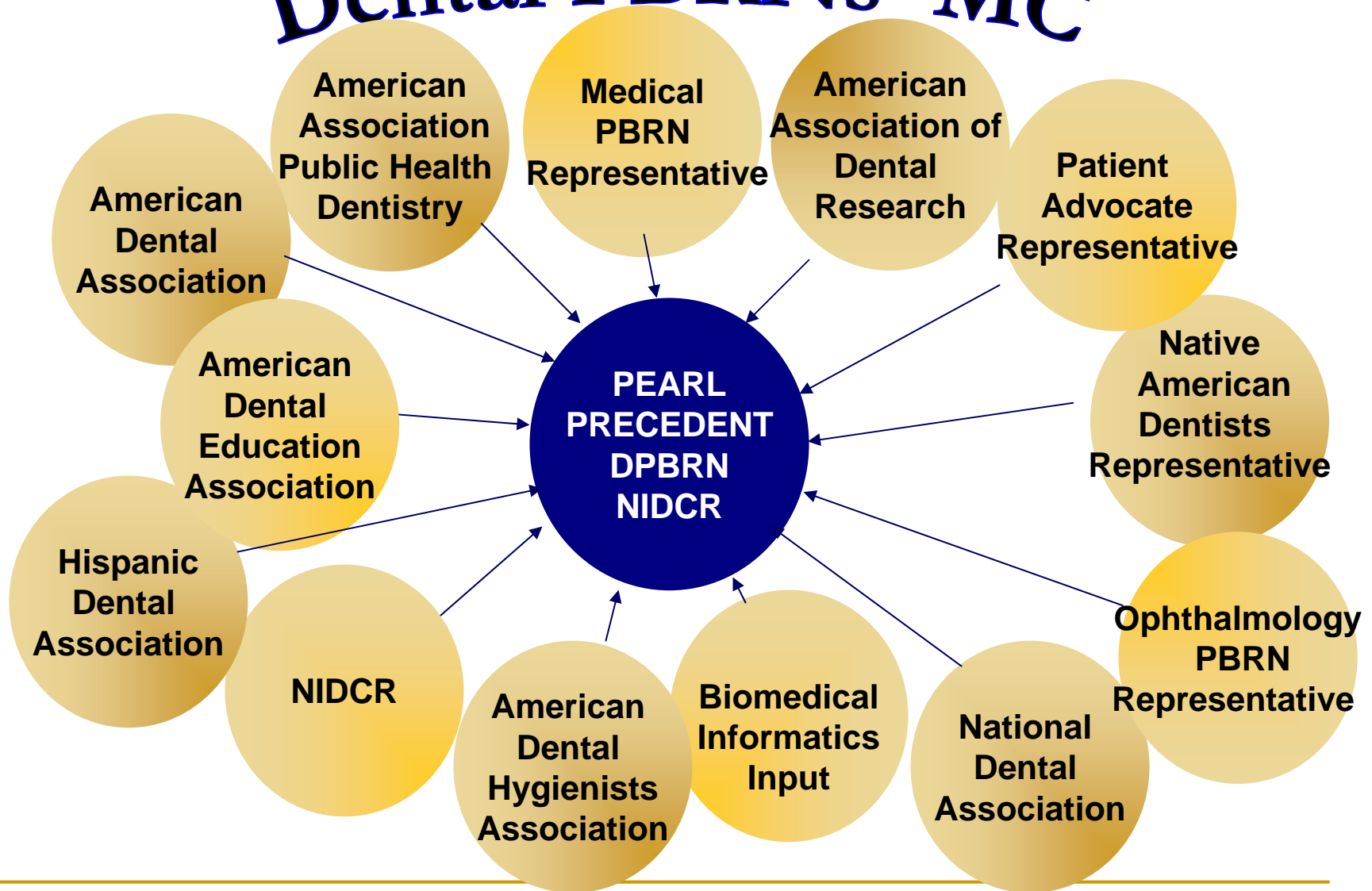
Dental Practice-Based Research Networks - Review

- **Ideas for individual studies proposed to the PBRN Executive Committee**
 - **After review by the PBRN Executive Committee, all protocols must be approved by:**
 - **Protocol Review Committee**
 - **IRB**
 - **DSMB for Phase III Trials**
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Monitoring Committee (MC) for Dental Practice-Based Research Networks

- **Provides NIDCR and PBRNs with feedback regarding research being proposed and conducted**
 - **Includes membership from various stakeholder groups**
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Dental PBRNs' MC



MC Provides Feedback to PBRNs & NIDCR

- **General Organization and Operation of the PBRNS**
 - **Informatics, Data sharing capabilities, and networks' interoperability**
 - **Clinical Relevance**
 - **Demographic and Ethnic Diversity**
 - **Network Outcomes and Progress**
 - **Knowledge Transfer to Practitioners and Public**
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PBRN Research Activities – First Year

- **PEARL: First studies are focusing on treatment strategies for advanced dental caries**
 - **DPBRN: First studies are focusing on treatment strategies for treating early carious lesions**
 - **PRECEDENT: First study is a survey of oral disease in PBRN practices**
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PBRN Collaborative Research Activities

First year

- **Networks are collaborating on a proposal to study risk factors for osteonecrosis of the jaw in relation a variety of factors including use of bisphosphonate drugs**

NIDCR is including a patient advocate on the Protocol Review Committee for this study

- **Networks are collaborating with the NIH National Cancer Institute's Center for Bioinformatics in defining common data elements and establishing a common data vocabulary repository**
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