

## Update on the Office of Research and Methodology

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Meeting of the NCHS Board of Scientific Counselors  
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### A. Collaborations with other programs in NCHS

1. ORM has increased focus on such collaborations
  - a. SRSDS has senior and junior staff members from SRSDS paired and working with most programs
    - Close to “triple citizenship” model suggested in review
  - b. QDRL collaborates with many programs
  - c. RDC collaborates with every program
2. “Reverse dual citizenships”
  - a. RDC has Data System Representatives assigned by the data offices/divisions
    - Helps to develop policies and procedures to improve operations
  - b. Planned QDRL detail program
    - QDRL will host staff from data divisions, who will work with QDRL staff on all aspects of an evaluation
3. “Ask the methodologist”
  - a. Individual seminars by internal and external methodologists on topics of importance
  - b. Week-long visits by external methodologists, along the lines of Summer at Census
  - c. Seminars in ORM by staff from other NCHS programs. ORM learns about important problems and provides advice.
  - d. All of the above will be planned by ORM together with other NCHS programs.
4. Examples of collaborative work by ORM staff
  - a. Award winners
    - NCHS Director’s Awards (2013 & 2014)
      - Individual award to staff member, for dedication to collaborative public health research, and for developing innovative statistical methodology for the analysis of linked datasets, multiple imputation, and Bayesian analysis
      - Innovation award to National Study of Long-Term Care Providers Team, for the timely implementation of NCHS’ first National Study of Long-Term Care Providers (NSLTCP) and the production of high-quality, policy-relevant NSLTCP products
      - National Hospital Care Survey (NHCS) Project Team, for superior efforts and dedication to making important strides to enhance the quality and scope of hospital statistics by launching the NHCS
      - NCHS DOQS Team, for outstanding collaboration in completing the beta release of the National Center for Health Statistics Data Online Query System
      - NHIS Sample Expansion Team, for the outstanding technical achievement of expanding the National Health Interview Survey sample areas beyond the initial sample selection

CDC Honor Award nominations in 2014 for work in 2013

- NCHS Disability Work Group, for exemplary leadership in the development and implementation of internationally comparable measures of disability
- Sexual Identity Measurement Development Group, for successfully developing standardized survey questions on sexual identity to advance DHHS public health goals
- Workgroup on Modeling, Identifying, and Adjusting for Implausible Gestational Ages in Data on Preterm Births for improving the measurement of preterm births by developing statistical methods to handle erroneous gestational ages
- National Study of Long-Term Care Providers

Articles receiving CDC/ATSDR Statistical Science Awards (and nominations for Charles Shepard Science Awards)

- Best applied paper: "Identifying implausible gestational ages in preterm babies with Bayesian mixture models." Stat Med, 2013.
- Honorable mention for best applied paper: "Trends and Geographic Patterns in Drug-Poisoning Death Rates in the US, 1999–2009." Am J Prev Med, 2013.

b. A few other notable collaborative projects

- Workgroups on guidelines for trend analysis, guidelines for precision requirements for published results (Associate Directors for Science)
- NHIS sample redesign committee
- NHIS Online Analytic Real-time System
- Research on creation and analysis of linked data
- Evaluation of public-use linked data products
- Research on imputation models/procedures for missing data in NHAMCS
- Cognitive testing of questions for several NCHS surveys
- Q-Suite: Q-Video; Q-Notes; Q-Bank

B. Hiring and staff development

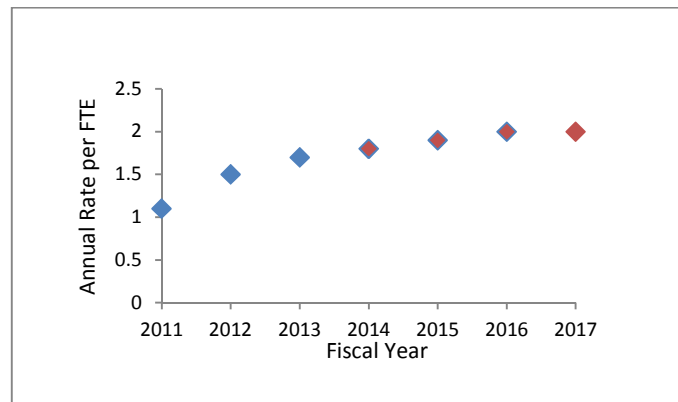
1. Top priority: Statistical Research and Survey Design Staff (SRSDS)
  - a. Hired several strong statisticians, including experts on survey design, confidentiality, and missing data
  - b. Hired new staff chief: Alan Dorfman, previously Senior Mathematical Statistician, Bureau of Labor Statistics
2. Also have hired judiciously for the Questionnaire Design Research Laboratory (QDRL) and the Research Data Center (RDC) as needed
3. Developed ORM training program, with dedicated ORM funds for training, mostly via external courses
4. SRSDS reading and analyzing fundamental papers on survey sampling

### C. Communication

1. Monthly program meetings with the NCHS Director's Office
2. Monthly D4O2 lunches
3. Initiating regular meetings between ORM director and directors of other programs
  - a. Will bring staff chiefs as appropriate
4. Ideas to enhance timeliness of question evaluations by QDRL
  - a. Promulgate throughout NCHS the steps needed to undertake a rigorous evaluation as well as the schedule that needs to be met
  - b. Work with data divisions to determine, early in their planning processes which items involve rigorous testing versus simply quick, expert advice
  - c. For items that involve rigorous testing
    - i. Work with data division to begin collaboration early enough for such testing to be accomplished
    - ii. Submit preliminary report to data division prior to completion of the final report

### D. Dissemination

1. RDC expansions:
  - a. New Humphrey Building RDC
  - b. Census Bureau RDCs
2. Making Q-Suite products more accessible
  - a. Linkages between Q-Bank and NCHS data
  - b. Improvements to Q-Notes
3. Increasing peer-reviewed publications (in books, journals, NCHS reports, Q-Bank)
  - a. *Cognitive Interviewing Methodology* published by QDRL staff members
  - b. Graph of accepted or published peer-reviewed publications per FTE in QDRL and SRSDDS (from 2013 program review by CDC Director):



- Topics include analyses of health data, blood pressure measurement methods, classifying hospitals by performance measures, combining information from two data sources, data linkage, disparities, meta-analysis, mortality forecasting, multiple imputation, question evaluations, sampling, small-area estimation, statistical disclosure limitation

E. Outreach outside of NCHS

1. Research director lunches: ORM director with counterparts from Census Bureau, Bureau of Labor Statistics, National Agricultural Statistics Service
2. Several projects with CDC units in Atlanta, DHHS, and other Federal agencies
3. Workgroups of the Federal Committee on Statistical Methodology; e.g.,
  - a. Standards for cognitive interviewing
  - b. Non-probability sampling
  - c. Confidentiality and Data Access Committee
4. Bringing in outside researchers for longer-term
5. NCHS RDCs (Hyattsville, Atlanta, Humphrey Building) and Census RDCs

F. Cross-staff collaboration within ORM

1. Increased collaboration between QDRL and SRSDS
  - a. Cross-staff seminars
  - b. Possible collaboration on an ORM research survey
2. Increased collaboration between RDC and SRSDS
  - a. Confidentiality issues
  - b. OARS

G. Considerations for the future

1. Reorganizing (hopefully) ORM into three “centers” or “branches”
  - a. Currently QDRL and RDC are together in one staff
    - i. Doesn’t make sense
      - Distinct roles
      - Prominence
2. Areas for future research, training, and hiring
3. Big data and non-probability sampling
  - a. Directions for statistical research?
  - b. Role of QDRL?
4. If NHIS Online Analytic Real-time System catches on:
  - a. What future directions should we take in dissemination?
  - b. What will be the role of the RDC?