The mission of the Office of Research and Scholarship is to champion College of Nursing faculty and students in converting research to nursing knowledge. This mission is carried out through (a) consultation, (b) location of funding sources, (c) grant development and management, (d) data analysis, and (e) research publication.

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STATE OF THE ORS ADDRESS: ORS ON THE MOVE

To assess the efficacy of ORS efforts in FY14-15, I will reiterate, in the column below, the final part of last year’s State of the ORS Address:

A popular philosophy in the world of bodybuilding goes like this: pack it on; carve it up. In other words, first, you build mass; next, you sculpt that shapeless mass into well-defined muscle. But first things first—you need to add mass as raw material for muscle creation.

In calendar year 2010, the CON’s number of funding submissions peaked at 36. After that spike, however, yearly submission totals consistently settled into the low 20s. Therefore, a primary goal for FY2013-14 was to get that submission number back up—and we have nailed that goal, projecting to smash our record of 36 submissions by the end of calendar year 2014. This is excellent news. The hit rate on our submissions...that’s another story.

In short, then, we spent FY 2013-14 packing on scholarly mass; we will spend FY 2014-15 sharpening up and perfecting that scholarship. An ORS submission process will be introduced soon. Another recently launched ORS initiative is the OSKJ Panel, which serves to vet ORS products. More details about integrating OSKJ into the grant submission process will follow.

ORS is active and purposeful. In the past year, we have stockpiled talent, energy, and scholarly products. In FY14-15, we will continue to develop the valuable materials we have accumulated. Let the mandate for the upcoming year read as follows: “Carve it up!”

The preceding section from last year’s State of the ORS Address signaled the primary objective for FY14-15. So, in retrospect, did we “carve it up”?

Last year’s Address talked about the rollouts of the new ORS Pre-submission Timeline and the OSKJ Panel. And yes, both of these instruments were rolled out successfully in FY14-15. The introduction of the new Timeline coincided with marked progress in the success of our submissions. The introduction of the OSKJ Panel—now the ORS Review Panel—also coincided with marked progress in the success of our submissions.

Therefore, as we kick off this year’s ORS Annual Report, I am pleased to say that we have met the objective spelled out at the kickoff of last year’s ORS Annual Report. Not only have we continued to step up our volume of grant submissions, but we have also shifted many those submissions from the unscored to the scored column, and, most significantly, we have secured funding, in the form of 2 PCORI grants (Krause-Parello, Jones), 1 CCTSI Community Engagement grant (Harpin), and 1 STTI grant (Gorton). Furthermore, we have made it past the first reviewers’ cut for both an AHRQ grant (Ozkaynak) and an EDM Forum grant (Reeder/Sousa). These are great individual and institutional accomplishments!

We have a clear picture of where we ultimately want to be. We have developed a roadmap for getting there. And we have embarked.

Karen Sousa, PhD, RN, FAAN
Professor, Associate Dean of Research and Scholarship
I. ORS OVERVIEW

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I. ORS OVERVIEW

ORS Staff

Karen H. Sousa, RN, PhD, FAAN, Professor
Associate Dean for Research and Scholarship

Sarah Schmiege, PhD,
Statistician and Assistant Research Professor

Barbara Creswell
Pre-award Grants and Contracts Specialist

Oliwier Dziadkowiec, PhD, Director of the Center for Research and Nursing Scholarship

Fanta Kuhlman, MPH, MBA, CRA joined the ORS staff in June 2015, bringing valuable experience at Denver Health, the University of Kansas, and here at Anschutz Medical Campus. She has expertise not only in handling the entire lifecycle of funded projects but also in crafting grants pre-submission. Fanta is a gifted person and a wonderful addition to ORS!
ORS Events

CNR-to-CRNS Open House
August 25, 2014

The name change from Center for Nursing Research (CNR) to Center for Research and Nursing Scholarship (CRNS) reflects expanding ORS inclusivity in that (a) de-coupling “Research” from “Nursing” acknowledges that not all CON research is nursing research and (b) adding “Scholarship” to the CRNS name acknowledges that valuable academic work comes in variegated forms. And the inclusivity push is not just nominal: renovations have made Room 4224 a place where ideas collide and partnerships form. The Open House gave the CON a chance to see the new CRNS logo and thank CNR RAs Tiffany Callahan and Alex Schneider for their outstanding work.

Research Scholarship & Seminar Series/
Jennifer Disabato
October 28, 2014

The purpose of the College of Nursing Research Scholarship and Seminar Series is to provide a regular forum of research and scholarly presentation and dialogue in the College of Nursing and with the larger campus community. The Series goals are to (a) promote the development of a scholarly community characterized by active engagement, mutual accountability, and individual accomplishment; (b) foster continued advancement of research/scholarship programs of faculty and graduate students through scholarly critique and dialogue; and (c) provide a forum for presentation of faculty and graduate student research and scholarship within both the College and the larger campus community.
I. ORS OVERVIEW

ORS Events

ORS Fall Research Mini-Retreat
October 31, 2014

ORS Research (Mini) Retreat Agenda, October 31, 2014
AMC Health and Wellness Center

8:00-9:00  From Five Years Ago to Today: Putting Our Research in Context (Karen Sousa)

9:00-10:00 Instituting Creativity via the Creative Institution: Lessons from the Book, “Creativity, Inc.” (Paul Cook)

10:00-noon From Today to Five Years from Today: Putting Our Research in High Gear (Several Presenters)

Noon-1:00 Lunch: Lemon Chicken and Parmesan Vegetable Risotto (Community)

Doris Kemp Smith Award Presentation/
Carol Crisp-Micsunescu & Marie Hastings-Tolsma
January 28, 2015

Through mechanisms like the Doris Kemp Smith Award, the ORS Faculty Research Committee contributes to the development and progress of CON research. Specific Research Committee functions in support of the ORS research mission include (a) collaborating with the Associate Dean of Research and Scholarship in convening review panels for proposals and ensuring adequate review of proposals; (b) overseeing the conduct of intramural research, managing the Intramural Scholarship Program, and allocating Intramural Scholarship Program funds; (c) providing funds for attending conferences, obtaining software, and compensating external reviewers; (d) making recommendations to the Associate Dean for Research and Scholarship regarding allocation of funds to support faculty research travel and scholarly endeavors; and (e), most broadly, promoting CON nursing research and scholarly endeavors in the healthcare community through inter-disciplinary and inter-professional outreach.
I. ORS OVERVIEW

ORS Events

ORS Lunch for Clinical/Teaching-track Faculty
February 20, 2015

Building further on the 2014-2015 incorporation of clinical/teaching-track faculty into the CON’s research mission, ORS hosted a lunch event expressly for clinical/teaching-track faculty members. And the theme of this gathering was as follows: this event is not a one-off event. The opportunities and support services that ORS promoted on that day—at that event—are the same opportunities and support services that are always available to anyone in the CON. In short, ORS will always marshal all of its resources and direct them at any CON research project. That is why ORS is here. This targeted lunch event sought to spread awareness of ORS’s ability and willingness to help.
I. ORS OVERVIEW

ORS Events

Applied Structural Equation Modeling Intensive
June 23-26, 2015

The 2015 SEM Intensive took place from June 23rd to June 26th. This year’s event had 10 attendees, some of whom received course credit for their participation—the first time the Intensive has offered that option through Nexus. Thank you to Karen Sousa, Paul Cook, Oli Dziadkowiec, and Sarah Schmiege for making this an event that draws inquiries and attendees from around the country and around the world.

ORS Tea
June 29, 2015

This event served to (a) welcome Fanta Kuhlman to the CON and (b) thank Barbara Creswell for majorly stepping up in a post-award capacity prior to Fanta’s arrival. Along with the eponymous drink, pastries were served. And thank you to everyone who came to the Tea and made it such a success! Attendance fluctuated, of course, but at its peak, 36 people were crowded into the CRNS, welcoming Fanta and thanking Barbara. This number includes Mary Burman, Dean of the University of Wyoming School of Nursing, who was in town. Again, thank you all for celebrating with us!
I. ORS OVERVIEW

ORS Publications, FY14–15


## I. ORS OVERVIEW

### ORS Publications, FY14-15

<table>
<thead>
<tr>
<th>Journal Articles</th>
<th>Books/Book Chapters</th>
<th>Conference Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>139</td>
<td>29</td>
<td>4</td>
</tr>
</tbody>
</table>


I. ORS OVERVIEW

ORS WINs!

Yes, CU nursing research has a global impact. But more specifically, in the Mountain Time Zone, we are the center of research gravity. And with Albuquerque hosting WIN 2015, ORS did what ORS does: show up and make our presence felt.

**Paula Meek** (left) and PhD student **Nora Flucke** have a nice—and knowing Paula, very direct—conversation.

**PhD student Andrea LeClaire** (left) sees things eye-to-eye with **Madalynn Neu**.

**Kristine Gauthier** (left) and **Nora Flucke** stand at the stellar foreground of a stellar wall of stellar CU posters.

**PhD student Jamie Mignano** (left) appears happy to have been taken under the wing of **Karen Sousa**.

From left to right are **Cheryl Krause-Parello**, PhD student **Lucy Graham**, **Linda Flynn**, and batting cleanup, **Michael Rice**.
II. ORS STATISTICAL AND RESEARCH SUPPORT CORE

ORS Review Panel 21
Center for Research and Nursing Scholarship (CRNS) 23
<table>
<thead>
<tr>
<th>Date Registered</th>
<th>Person Who Registered</th>
<th>Type of Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/28/15</td>
<td>Ozkaynak</td>
<td>NIH R01 Grant Submission</td>
</tr>
<tr>
<td>5/26/15</td>
<td>Sousa</td>
<td>PPT Presentation</td>
</tr>
<tr>
<td>5/20/15</td>
<td>Reeder</td>
<td>EDM Forum Grant Submission</td>
</tr>
<tr>
<td>5/14/15</td>
<td>Sousa</td>
<td>Promotional Document</td>
</tr>
<tr>
<td>5/7/15</td>
<td>Sousa</td>
<td>PPT Presentation</td>
</tr>
<tr>
<td>5/1/15</td>
<td>Sousa</td>
<td>Journal Article Submission</td>
</tr>
<tr>
<td>4/30/15</td>
<td>Dziadkowiec</td>
<td>PCOEI Grant Submission</td>
</tr>
<tr>
<td>4/14/15</td>
<td>Ozkaynak</td>
<td>Responses to Reviewer Feedback</td>
</tr>
<tr>
<td>4/11/15</td>
<td>Sousa</td>
<td>Journal Article Submission</td>
</tr>
<tr>
<td>4/9/15</td>
<td>Armstrong</td>
<td>Textbook Chapter</td>
</tr>
<tr>
<td>4/3/15</td>
<td>Nelson-Marten</td>
<td>Poster</td>
</tr>
<tr>
<td>3/18/15</td>
<td>Dziadkowiec</td>
<td>QI Project Review</td>
</tr>
<tr>
<td>3/5/15</td>
<td>Hilgendorf (Student)</td>
<td>WIN Poster</td>
</tr>
<tr>
<td>3/2/15</td>
<td>Thumm (Student)</td>
<td>WIN Poster</td>
</tr>
<tr>
<td>3/2/15</td>
<td>Sousa</td>
<td>PPT Presentation</td>
</tr>
<tr>
<td>3/1/15</td>
<td>Ozkaynak</td>
<td>Develop Figure for Article</td>
</tr>
<tr>
<td>2/20/15</td>
<td>Graham (Student)</td>
<td>WIN Poster</td>
</tr>
<tr>
<td>2/10/15</td>
<td>Sousa</td>
<td>PPT Presentation</td>
</tr>
<tr>
<td>2/9/15</td>
<td>Nicol</td>
<td>Faculty Profile</td>
</tr>
<tr>
<td>2/9/15</td>
<td>Manthey (Student)</td>
<td>WIN Poster</td>
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<tr>
<td>2/5/15</td>
<td>Robinson</td>
<td>Develop Figure for Article</td>
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<td>2/4/15</td>
<td>Rice</td>
<td>HRSA Grant Submission</td>
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<tr>
<td>2/4/15</td>
<td>Shaw</td>
<td>Poster Development</td>
</tr>
<tr>
<td>1/21/15</td>
<td>Grubaugh (Student)</td>
<td>WIN Poster</td>
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<tr>
<td>1/20/15</td>
<td>Ozkaynak</td>
<td>Develop Branding for Grant/Program of Research</td>
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<tr>
<td>1/20/15</td>
<td>Warren (Student)</td>
<td>WIN Poster</td>
</tr>
<tr>
<td>1/8/15</td>
<td>Henrichs</td>
<td>Poster Development</td>
</tr>
<tr>
<td>1/8/15</td>
<td>Mignano (Student)</td>
<td>WIN Poster</td>
</tr>
</tbody>
</table>
## ORS Review Panel

### ORS Review Panel Mission

The primary goal of the ORS Review Panel is to improve the quality of grant submissions, publications, and presentations (poster and podium) that come out of and represent the College of Nursing. The secondary goal is to contribute to a collegial scholarly culture that allows for open-review processes.

### ORS Review Panel Services

The Panel can help with everything from layout to cohesion to format to language to methods to targeting specific agencies, mechanisms, or journals.

### Data from FY 2014-15

Number of projects registered through the ORS Review Panel webpage, 9/25/14 (launch of panel) to 5/30/15: **43**

Number of hours worked in support of registered projects: **221**

<table>
<thead>
<tr>
<th>Date Registered</th>
<th>Person Who Registered</th>
<th>Type of Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/25/14</td>
<td>Ozkaynak</td>
<td>Journal Article</td>
</tr>
<tr>
<td>11/13/14</td>
<td>Sousa</td>
<td>Journal Article</td>
</tr>
<tr>
<td>11/8/14</td>
<td>Neu</td>
<td>CCTSI Grant Submission</td>
</tr>
<tr>
<td>10/26/14</td>
<td>Sousa</td>
<td>WIN Symposium Submission</td>
</tr>
<tr>
<td>10/24/14</td>
<td>Dziadkowiec</td>
<td>Journal Article</td>
</tr>
<tr>
<td>10/16/14</td>
<td>Ozkaynak</td>
<td>NIH R21 Grant Submission</td>
</tr>
<tr>
<td>10/15/14</td>
<td>Cook</td>
<td>Center Grant Submission</td>
</tr>
<tr>
<td>10/12/14</td>
<td>Nelson</td>
<td>Journal Article</td>
</tr>
<tr>
<td>10/10/14</td>
<td>Pedro</td>
<td>Journal Article</td>
</tr>
<tr>
<td>10/9/14</td>
<td>Harpin</td>
<td>NIMH R34 Grant Submission</td>
</tr>
<tr>
<td>10/7/14</td>
<td>Horton-Deutsch</td>
<td>Textbook Chapters</td>
</tr>
<tr>
<td>10/6/14</td>
<td>Reeder</td>
<td>NSF Title Proposal</td>
</tr>
<tr>
<td>10/6/14</td>
<td>Dziadkowiec</td>
<td>AHRQ R03 Grant Submission</td>
</tr>
<tr>
<td>10/2/14</td>
<td>Ozkaynak</td>
<td>AHRQ R03 Grant Submission</td>
</tr>
<tr>
<td>9/29/14</td>
<td>Sousa</td>
<td>Online Registration Page/Process Flowchart</td>
</tr>
</tbody>
</table>
II. ORS STATISTICAL AND RESEARCH SUPPORT CORE

CRNS: Staff

Oliwier Dziadkowiec, PhD
CRNS Director
Oli oversees the functions of the CRNS, supervising the research assistants and coordinating the activities of the computer laboratory. He assists with data analysis/interpretation and provides guidance to students and faculty in statistical/research design.

Maria Butler, CRNS RA

<table>
<thead>
<tr>
<th>Goals:</th>
<th>Become a successful global health epidemiologist</th>
</tr>
</thead>
<tbody>
<tr>
<td>On AMC:</td>
<td>“I appreciate the emphasis on multidisciplinary collaborations between the faculty, students, and all of the CU campuses.”</td>
</tr>
<tr>
<td>Miscellany:</td>
<td>Enjoys snowboarding and soccer</td>
</tr>
</tbody>
</table>

Chanmi Lee, CRNS RA

<table>
<thead>
<tr>
<th>Goals:</th>
<th>Become an FNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>On AMC:</td>
<td>“I really love it here because people can see potential in me and bring it out, especially Dr. (Diane) Skiba and Dr. Oli (Dziadkowiec).”</td>
</tr>
<tr>
<td>Miscellany:</td>
<td>Enjoys classical music and playing cello</td>
</tr>
</tbody>
</table>

Madeline Morris, CRNS RA

<table>
<thead>
<tr>
<th>Goals:</th>
<th>Continue education in epidemiology, studying genetics</th>
</tr>
</thead>
<tbody>
<tr>
<td>On AMC:</td>
<td>“There are so many ways to continue learning by expanding on what’s learned in the classroom. The professors are invested in their students’ futures and also active in guiding us.”</td>
</tr>
<tr>
<td>Miscellany:</td>
<td>Enjoys snowboarding, camping, hiking, snowshoeing, climbing</td>
</tr>
</tbody>
</table>
II. ORS STATISTICAL AND RESEARCH SUPPORT CORE

CRNS: Summary of FY14–15 Activities

CRNS Mission/Key CRNS Functions
The mission of the CRNS is to share scientific skills that promote research at the CON as well as provide our technical skills and expertise to the CCNR, with a focus on research methods and statistics. Services offered by the CRNS include (a) consultation, (b) teaching support for methodology courses, (c) statistical analysis, (d) data entry, (e) peer review, (f) survey development and implementation, (g) educational programs for students, faculty, and nursing researchers in the community, and (h) maintenance of the college’s research reference library, equipment, and computer lab.

CRNS Mission, Part 1: Promoting CON Research

CRNS Consultation Activities for College of Nursing Students and Faculty
The CRNS Director (1 FTE) and the CRNS RAs (total of 1 FTE) provided a total of 444 consultations—amounting to 796 hours of consultation time—to College of Nursing faculty and students between May 1, 2014 and June 30, 2015. Consultations included analysis plan creation, grant submission assistance (Methods section and responses to reviewer comments), cleaning and screening data, data restructuring, statistical analysis, data management, transcription, peer review, proof reading, review of DNP and PhD methods and analysis, results interpretation, final report preparation, outside presentations (e.g., “Ask a Statistician” booth at the EBP Conference), power analysis, database design, online survey construction and administration, one–on–one SPSS tutorials, WIN poster submission assistance, and student classroom–project assistance.

CRNS CON–related consultation activities fall into 3 categories:
1. DNP capstone project consultations
2. PhD dissertation project consultations
3. Faculty research project consultations

In FY14–15, CRNS provided a wider variety of services than in FY13–14.
In FY14–15, CRNS provided more total consultations and consultation hours than in FY13–14 (Table 1).

Table 1. Faculty and Student Appointments, Total, FY13–14 v. FY14–15

<table>
<thead>
<tr>
<th></th>
<th>FY13–14</th>
<th>FY14–15</th>
<th>Total Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Consultations</td>
<td>297</td>
<td>406</td>
<td>+109</td>
<td>+37%</td>
</tr>
<tr>
<td>Total Consultation Hours</td>
<td>490</td>
<td>714</td>
<td>+224</td>
<td>+46%</td>
</tr>
</tbody>
</table>
II. ORS STATISTICAL AND RESEARCH SUPPORT CORE

CRNS: Summary of FY14-15 Activities

CRNS Mission, Part 1, Continued: Promoting CON Research

Breaking CON research-promotion activities into categories: DNP capstone project support (Table 2), PhD dissertation project support (Table 3), and faculty research project support (Table 4)

Table 2. DNP Capstone Project Support, FY13-14 v. FY14-15

<table>
<thead>
<tr>
<th></th>
<th>FY13-14</th>
<th>FY14-15</th>
<th>Total Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Consultations</td>
<td>127</td>
<td>138</td>
<td>+11</td>
</tr>
<tr>
<td>Total Consultation Hours</td>
<td>126</td>
<td>178</td>
<td>+52</td>
</tr>
<tr>
<td>Longest Consultation</td>
<td>4 hours</td>
<td>4 hours</td>
<td>0</td>
</tr>
<tr>
<td>Shortest Consultation</td>
<td>20 min</td>
<td>10 min</td>
<td>-10</td>
</tr>
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</table>

Table 3. PhD Dissertation Project Support, FY13-14 v. FY14-15

<table>
<thead>
<tr>
<th></th>
<th>FY13-14</th>
<th>FY14-15</th>
<th>Total Change</th>
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<tbody>
<tr>
<td>Total Consultations</td>
<td>40</td>
<td>36</td>
<td>-4</td>
</tr>
<tr>
<td>Total Consultation Hours</td>
<td>65</td>
<td>64</td>
<td>-1</td>
</tr>
<tr>
<td>Longest Consultation</td>
<td>6 hours</td>
<td>4 hours</td>
<td>-2</td>
</tr>
<tr>
<td>Shortest Consultation</td>
<td>25 min</td>
<td>30 min</td>
<td>5</td>
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Table 4. Faculty Research Project Support, FY13-14 v. FY14-15

<table>
<thead>
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<th></th>
<th>FY13-14</th>
<th>FY14-15</th>
<th>Total Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Consultations</td>
<td>130</td>
<td>234</td>
<td>+102</td>
</tr>
<tr>
<td>Total Consultation hours</td>
<td>299</td>
<td>472</td>
<td>+173</td>
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<tr>
<td>Longest Consultation</td>
<td>7 hours</td>
<td>10 hours</td>
<td>+3</td>
</tr>
<tr>
<td>Shortest Consultation</td>
<td>15 min</td>
<td>20 min</td>
<td>+5</td>
</tr>
</tbody>
</table>
II. ORS STATISTICAL AND RESEARCH SUPPORT CORE

CRNS: Summary of FY14-15 Activities

CRNS Mission, Part 1, Continued: Promoting CON Research

Published Peer-reviewed Manuscripts


Poster and Podium Presentations


Manuals


Invention/Discovery (pending)

Reeder, B., Dziadkowiec, O., & Callahan T. An overhead sensing approach to identify unique individuals and measure gait speed.
CRNS: Summary of FY14–15 Activities

CRNS Mission, Part 2: Providing Technical Skills and Expertise to the CCNR

CRNS Participation in the Colorado Collaborative for Nursing Research (CCNR)

CRNS director Dr. Oliwier Dziadkowiec has been serving as the main analyst for CCNR external stakeholders, in particular, University of Colorado Hospital and Children’s Hospital Colorado. He has also been collaborating with the signature CCNR initiatives: the CU Nursing Informatics and Collaborative E-Health (NICE) Research Core and the CU Patient-Initiated Data (CUPID) project.

In FY14–15, CRNS provided more total consultations and consultation hours than in FY13–14 (Table 5).

Table 5. CRNS Technical Skill and Expertise Provision to CCNR, FY13–14 v. FY14–15

<table>
<thead>
<tr>
<th></th>
<th>FY 13–14</th>
<th>FY 14–15</th>
<th>Total Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Consultations</td>
<td>44</td>
<td>101</td>
<td>+57</td>
<td>+130%</td>
</tr>
<tr>
<td>Total Consultation Hours</td>
<td>129</td>
<td>177</td>
<td>+48</td>
<td>+37%</td>
</tr>
<tr>
<td>Shortest Consultation</td>
<td>15 minutes</td>
<td>25 minutes</td>
<td>+10</td>
<td>n/a</td>
</tr>
<tr>
<td>Longest Consultation</td>
<td>8 hours</td>
<td>3 hours</td>
<td>-5</td>
<td>n/a</td>
</tr>
</tbody>
</table>

II. CENTER FOR RESEARCH AND NURSING SCHOLARSHIP

From CNR to CRNS, 8/25/14

Converting the “Center for Nursing Research” into the “Center for Research and Nursing Scholarship (CRNS)” acknowledges that not all research conducted through ORS is nursing research—there is also research in pedagogical theory, public health, and more. Insertion of the word “Scholarship” into the CRNS name serves the same purpose: it recognizes that valuable academic work comes in variegated forms. And CRNS Director Oliwier Dziadkowiec is always working to make Room 4224 a more inviting gathering place, where ideas can collide and partnerships can form.
II. ORS STATISTICAL AND RESEARCH SUPPORT CORE

CRNS: FY14-15 Accomplishments

Overall, CRNS has been used more in FY14-15 than FY13-14 (Table 1). Highlights once again include the large number of DNP students and PhD students supported in QI projects and dissertation projects. Additionally, the CRNS director and CRNS RAs have developed more long-lasting partnerships with faculty through repeat consultations and manuscript/presentation co-authorship. CRNS has also become more involved in Colorado Collaborative for Nursing Research (CCNR) projects, where the CRNS director is assisting with statistical analysis and the setup of federated data systems/databases.

Last year’s CRNS annual report identified three major challenges: (a) RA staffing, (b) DNP project support, and (c) keeping up with new statistical methods through continuing education. The following paragraphs capture the accomplishments CRNS has made in addressing those challenges.

**ColoradoSPH Connect.** In order more efficiently to recruit research assistants from the Colorado School of Public Health, CRNS has established an employer profile on the ColoradoSPH Connect website. ColoradoSPH Connect is “the centralized hub for all job, practicum, internship, and volunteer postings.” This allows CRNS job postings to be viewed by all interested CSPH graduate students, which has helped in maintaining a larger applicant pool and hiring higher quality RAs.

**New DNP Project Guidelines.** In an effort to improve the quality of the DNP consultations, CRNS staff has created a set of guidelines for using statistical tests, power analyses, and Microsoft Excel (to create control charts for analysis). In collaboration with Drs. Cook and Nelson, Dr. Dziadkowiec has helped to create a new set of instructions for DNP related analysis, which includes the use of an expanded number of Run/Control chart methods.

**Missing and “Dirty” EHR Data Research.** The past year’s work with data from electronic health records (EHR) has helped the CRNS director in starting a research area dedicated to dealing with missing and “dirty” data extracted from the EHR. Along with his colleagues from the CU School of Medicine and University of Iowa, Dr. Dziadkowiec has pursued PCORI funding, aiming to develop new statistical software and framework for dealing with missing and “dirty” EHR data. The first product of this work is a manuscript under review in eGEMs, an open source journal from Academy Health.

**New CRNS-related Manuscripts.** In addition to two new peer-reviewed published manuscripts, the CRNS director and a former CRNS RA have co-authored 6 manuscripts currently under review. These manuscripts are based on projects undertaken in FY13-14 with CCNR hospital partners and CON faculty members.

**New RA Time Tracking System Improvements.** We have made improvements to our time-tracking system in order to be able to track a larger number of work-associated variables. The major changes include a drop-down task menu and an invoice/charging system. The task menu allows us to track more consistently the type of work we do, and the invoice/charging system allows us to keep track of our fee-for-service work through one software application, which makes our financial tracking more reliable and organized.
II. ORS STATISTICAL AND RESEARCH SUPPORT CORE

CRNS: FY15-16 Challenges and Opportunities

**FY15-16 Challenges**

*Staffing*. As in the previous two years, maintaining RA staffing is an ongoing challenge for the CRNS. We have made great strides in training and recruiting new RAs, but due to high natural turnover of our RAs (as they graduate) and an increasing number of consultation requests, it has become difficult to find the required amount of time to fully train new RAs. This has been especially difficult as consultation requests are becoming more statistically complex and require a higher time commitment.

*Keeping up with New Statistical Methods through Continuing Education*. As the CON evolves and new statistical methods become necessary to analyze EHR-embedded Big Data, the CRNS Director and CRNS RAs will need to find time to learn new statistical techniques in order to meet the more statistically demanding requests from our faculty and hospital partners.

**FY15-16 Opportunities**

*Expansion of CRNS Services*. As CCNR moves closer to realizing its mission, CRNS will likely expand the volume and complexity of services. Improving RA training and securing funding for another part-time statistician will be important.

*Statistical Training Seminar Series*. We will launch in Fall 2015/Spring 2016 a statistical training series, and we will also provide opportunities for CON colleagues to present their research and scholarship at CRNS. We hope that this will provide a forum for idea generation, networking, and collaboration.

*Additional CRNS Scholarship*. With our expanded training plans, we hope to contribute to a larger number of funded CON grants and high quality peer-reviewed manuscripts and presentations.
III. COLORADO COLLABORATIVE FOR NURSING RESEARCH (CCNR)

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The Future of Health Care and the Future of Nursing

Because the future of the US healthcare system will be written in the electronic health record (EHR), if nurses today acquiesce to being represented simply as “box checkers” in EHR—if nurses’ accept this non-substantive, not-representative-of-nursing presence in the EHR—they consign themselves to eventual obsolescence. After all, automated systems already can assign tasks, provide instructions, and record data. Robots can check boxes.

So to remain relevant and viable, today’s nurses must find their voice in the language of the healthcare future: data. And to be compelling in that language, today’s nurses must produce and use data that isolate and capture the high impact of quality nursing on patient outcomes. And these data must appear in the germinal record of the evolving future of healthcare: the EHR. In short, quantifying nursing care in discrete data metrics and then integrating those nursing care metrics into the EHR constitute an existential necessity for the nursing profession.

The Colorado Collaborative for Nursing Research

The Colorado Collaborative for Nursing Research (CCNR) is addressing nursing’s need for nursing-centered data. The objective of the CCNR is to champion nursing by (a) extracting nursing-specific data from the proprietary EHR systems of multiple stakeholders; (b) importing, harmonizing, and processing those data; and (c) returning high-quality nursing-centered analytics to acute care facilities in near-real-time to inform the decisions and best practices of nurse leaders and nurse clinicians.

The CCNR has a three-arm structure: (1) a forum where nurse scientists and nurse clinicians can share fresh perspectives and leverage their collective weight in contributing to broader healthcare conversations; (2) a support services arm where nurse scientists can get modeling, statistical, data-management, and writing help in promotion of their nursing visions/projects; and significantly, (3) a first-of-its-kind, multi-system, nursing-focused, federated data-sharing network.

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III. CCNR


CCNR Symposium, WIN Conference 2015:
“Colorado Collaborative for Nursing Research: Nurses, Trailblazers, Pioneers” was the title of the WIN symposium presented by Karen Sousa, Kathy Oman, CU CON alumn Cindy Oster, Blaine Reeder, Mustafa Ozkaynak, and John Welton.
Regina Alexander-Reis, RN, MS-BC
Supervisor, Health Informatics, VA Eastern Colorado HCS

Jessica Bondy, MSHA
Director, Research Informatics, University of Colorado Cancer Center
Associate Professor, Biostatistics & Informatics, CU School of Public Health

Jo Comstock
Director, Nursing Informatics/Float Pool, Kaiser Permanente Colorado

Oliwier Dziadkowiec, PhD
Director, Center for Research and Nursing Scholarship, CU College of Nursing

Carsten Gorg, PhD
Instructor, Computational Bioscience, CU School of Medicine

Katrina Lawrence, RN
Admit-Discharge Team, Poudre Valley Hospital

Michael G. Kahn, MD, PhD
Professor, Pediatrics; Director, Research Informatics, CHCO
Core Director, Biomedical Informatics, CCTSI
Associate Director, Center for Biomedical Informatics & Personalized Medicine

Sharon B. Kirby, MSN, RN-BC
VP/Chief Nursing Informatics Officer, Centura Health

Cindy Larson, RN, BSN
Manager, Clinical Informatics, University of Colorado Health

Mustafa Ozkaynak, PhD
Assistant Professor, CU College of Nursing

Martha Stone Palmer, PhD
Professor, Linguistics and Computer Science, CU-Boulder

Alice Pekarek, RN-BSN
Director of Clinical Informatics, University of Colorado Health

Tzu Lip Phang, PhD
Associate Professor, CU Denver

Blaine Reeder, PhD
Assistant Professor, Health Care Informatics, CU College of Nursing

Bob Schell
Director, Research & Shared Services, OIT, CU Denver

Kathy Smith, RN, MS, PMC
Informatics Nurse Specialist, University of Colorado Hospital
III. CCNR

CCNR Summit, February 19, 2015:
Technical/Informatics Group

- Governance issues need to be resolved before technical and resource requirements can be defined. Specifically, we must have buy-in from C-suite executives and legal issues must be resolved.

- We must be a little further along in resolving governance issues before addressing technical implementation issues (note: CCNR *is* further along with the governance with 7 DUAs signed for the 30-day readmission project and requests for EHR data outstanding in 3 organizations. All data sets should be delivered by end of summer 2015).

- Having an example implementation success story is important to getting buy-in (CHORDS implementation of PopMedNet serves as an example success story).

- Emphasize Quality Improvement. De-emphasize the use of “research” and research-related language in the academic sense.

- Specify a simple QI/research question that is important to organizations to incentivize participation (example from Michael Kahn): "We hypothesize that the last pain score recorded before discharge is related to likelihood of re-admission.

- Implementation processes will be similar but must be contextualized to each organization.

- Even if outside funding is provided for technical hires, organizational resources are constrained and access to them may be delayed.

- Anticipate a years-long process. Less than two years may be quick. (The CCNR experience with 30-day readmission project exemplifies this).

- There is a need for a system to uniquely identify patients across settings (master patient index for patient record linkage)

- Build algorithm to get information from health record.

- By getting executive buy-in, ramp up priority level among analytics teams for pulling CCNR data.
III. CCNR

CCNR Summit, February 19, 2015:
Nurse Scientist Group

Bonnie Adrian, PhD, RN
Manager, Nursing Outcomes, Research, & EBP, Denver Health

Marthie Baker, MS, MA, BSN, RN
Department of Professional Development & Quality for Nursing, KPCO

Cathy Battaglia, PhD, RN
Nurse Investigator, Denver/Seattle Center of Innovation

Diane K. Boyle, PhD, RN, FAAN
Wyoming Excellence Chair in Nursing
Professor, University of Wyoming School of Nursing

Peggy Budai, RN, MS, NP-C, CNS
Clinical Nurse Specialist, UCHealth

Deborah Campbell, ND, RN, CNS, NEA-BC
Director, Professional Nursing Practice, Saint Joseph Hospital

KC Clevinger, PhD, CPNP, CCRP
Director of Research, Children’s Hospital Colorado

Bonnie Clipper, DNP, RN, MA, MBA
CNO, Medical Center of the Rockies

Ric Detlefsen, MSN, RN, CPHQ
Director, Clinical Quality & Risk Management, PVH & MCR

Anthony Disser
Sr. Vice-President, Clinical Operations, Kindred Healthcare

Ann Henderson, PhD, RN-BC
Education Nurse Specialist, Clinical Education & Innovation Center, UCHealth

Kelly M. Johnson, PhD, RN, NEA-BC
Dr. Dori Biester Chair in Pediatric Nursing, SVP, CNO
Children’s Hospital Colorado

Cathy Kleiner, PhD, RN, CNS
National Director of Nursing Research, Catholic Health Initiatives

Mary Beth Flynn Makic, RN, PhD, CNS, CCNS, FAAN
Research Nurse Scientist, Critical Care, University of Colorado Hospital

Kathy Oman, PhD, RN, FAEN, FAAN
Research Nurse Scientist/CNS, University of Colorado Hospital

Melanie F. Sandoval, PhD, RN
Nurse Scientist, Perioperative/Obstetric Research, University of Colorado Hospital

Cynthia A. Oster, PhD, MBA, APRN, CNS-BC, ANP
Nurse Scientist, Clinical Nurse Specialist, Critical Care/Cardiovascular
Centura Porter Adventist Hospital

Emily J. Tremlett, RN, BSN, CCRC
Clinical Research Supervisor, SCL Health/Saint Joseph Hospital
III. CCNR

CCNR Summit, February 19, 2015:
Nurse Scientist Group

- Discussion of components of health (e.g., ability to concentrate, pursuit of goals, memory, sense of control, positive change in symptom status) and ways they could be captured in EHR. Each group (3) had its own way of organizing the outcomes they thought could be used.

  Group 1: “Our idea is to get the ‘low-hanging fruit.’” “Facilities should allow patients to do—even in the hospital—what makes them happy. If they smoke and eat potato chips on the weekend, they should be able to do that in the hospital.”

  Group 2: “We struggled to understand what could be measured in a meaningful way in the acute care setting.” “We recognize that health has many components, but our collection and measurement are limited to what is quantifiable.”

  Group 3: “A lot of the items we discarded were actually very important to the patient but weren’t necessarily measurable.”

- Decisions about which components of health should be targeted, as indicative of quality nursing, for inclusion in the EHR and subsequent tracking: independently, the nurse groups reached 100% unanimity based on feasibility of quantification and, therefore, of collection

  - Mobility
  - Sleep
  - Pain

- Form a question up front (e.g., Does the pain score have any association with the likelihood of being readmitted? Can we show that? And then, you can start to ask, “What about the trend?”). “Quick, easy wins—descriptive—1 screen rather than 15 in EHR.” “If you could get some external funding for a pilot study, that would help validate it. Need to show some proof of concept.”

- Engage CNOs at the right time (i.e., be able to answer the following questions: “What specific information do you want? What is the value of the proposal? How will it be different from the data we have today?”

- Short-term, get the CNOs together. Work with Linda Roan, Associate CNO (MCA), and ask if she could convene the CNO table.
CU Patient Initiated Data (CUPID) Initiative

Karen Sousa, Blaine Reeder, Jessica Bondy (CHORDS project), and Bryant Doyle (Senior Software Developer, CHORDS project) met with UCHealth CIO Steve Hess and UCHealth Epic/Nursing Informatics Specialist Alice Pekarek to discuss an EHR-data-extraction dry run involving all 5 hospitals in the UCHealth System and using a PopMedNet (PMN) platform. The meeting was a success. Karen Sousa then met with CHCO CNO Kelly Johnson and secured Children’s Hospital Colorado’s participation as well. The demo is expected to happen in Fall 2015.

Hospital 30-day Readmission and Nursing-sensitive Process Indicators

External stakeholders/Data Use Agreements signed: University of Colorado Hospital (UCH), Children’s Hospital Colorado (CHCO), Porter Adventist Hospital (Centura Health), Poudre Valley Hospital (PVH), Medical Center of the Rockies (MCR), Denver Health and Hospital Authority (DHHA), and Veteran’s Administration Eastern Colorado Health Care System (VA). Data collection has begun. Stakeholders are engaged in every-other-month meetings. Project will sync with the CUPID initiative.

Symptom Trajectory throughout Patient Length of Stay as a Nursing-sensitive Process Indicator

- External stakeholder: University of Colorado Hospital (UCH)
- Funding status: Funded for FY15-16 and FY16-17
- COMIRB status: Approved
- Data-collection status: Now (a) hiring student RAs and (b) preparing patient questionnaire
- Projected launch of study: Fall 2015
III. CCNR

**FY14-15 Outreach to External Stakeholders**

- **7/22/14** Kai Larsen/Natural Language Processing group
- **7/24/14** Nurse Scientist Research Group, (Catherine Battaglia, VA; Bradley Howard, KPSC; KC Clevinger, CHC; Deborah Campbell, ESJ; Bonita Shviraga, HO-MCA; Catherine Kleiner, CHI; Kathy Oman, UCH; Cynthia Oster, Centura; John Welton, CU-CON)
- **8/4/14** Kindred Healthcare/Tony Disser
- **8/5/14** University of Wyoming, Mary Burman
- **9/3/14** Denver Health, Bonnie Adrian
- **9/4-5/14** AONE/CONL Conference (Amy Garcia, Cerner)
- **9/11-12/14** Presentation at CHCO
- **9/23/14** CU School of Medicine, Drs. Heidi Wald and Mark Gritz
- **9/25/14** Nurse Scientist Research Group at Centura Porter Adventist Hospital (Catherine Battaglia, VA; Bradley Howard, KPSC; KC Clevinger, CHC; Deborah Campbell, ESJ; Bonita Shviraga, HO-MCA; Catherine Kleiner, CHI; Kathy Oman, UCH; Cynthia Oster, Centura; John Welton, CU-CON)
- **10/1/14** University of Wyoming, Mary Burman
- **10/2/14** Catholic Health Initiatives, Data-use meeting
- **10/13/14** University of Colorado Health North (PVH and MCR) (Janet Craighead, Peggy Budai, Ann Henderson)
- **10/27/14** Presentation for VA/VISN 19 (Norlynn Nelson)
- **11/21/14** Penrose/St. Francis, Colorado Springs
- **1/29-31/15** AACN Doctoral Conference, San Diego, CA (Sue Bakken)
- **2/19/15** First CCNR Summit, AMC
- **3/31/15** UCHealth (Carolyn Sanders, CNO)
- **4/25/15** CCNR Symposium, WIN Conference, Albuquerque, NM (participation in Symposium presentation by Catherine Battaglia, VA and Cynthia Oster, Centura)
- **4/30/15** VA Eastern Colorado Healthcare System (Cory Ramsey, Associate Director of Patient Care Services)
- **5/26/15** CIVHC (Kristin Paulson, Director of Health Care Programs)
- **6/9/15** PopMedNet (Jessica Bondy, CHORDS Director)
- **6/10-12/15** AONE/CONL Conference (Amy Garcia, Cerner; Emily Barey, Epic)
- **6/19/15** Nurse Scientist Research Group meeting (Catherine Battaglia, VA; Bradley Howard, KPSC; KC Clevinger, CHC; Deborah Campbell, ESJ; Bonita Shviraga, HO-MCA; Catherine Kleiner, CHI; Kathy Oman, UCH; Cynthia Oster, Centura; John Welton, CU-CON)
- **6/28/15** Centura Porter Adventist about CUPID/federated data demo (Sharon Pappas, CNO)
IV. FACULTY RESEARCH COMMITTEE

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IV. FACULTY RESEARCH COMMITTEE

Summary of Activities

The 2014-2015 CON Faculty Research Committee elected members were Chair Dr. Paul Cook, general members Dr. Linda Krebs and Dr. Jacqueline Jones, and PhD student Brie Thumm (selected). Also in attendance were the following ex-officio non-voting members: Associate Dean for Research Dr. Karen Sousa and Grant Specialist Barbara Creswell.

FACULTY RESEARCH COMMITTEE GOALS (as established in FY2010)

The Research Committee provides oversight, review, and recommendations related to the development and progress of research conducted by the faculty and students of the College. The Research Committee supports CON Strategic Priority #3: Conduct outstanding research and creative work for the public good.

The FY14 Research Committee took the following actions towards meeting College of Nursing goals:

Goal 3.1—Be a global leader in translation & application of discovery, innovation, & creativity for societal good
Goal 3.2—Enhance our reputation for nationally and internationally recognized research for translating discovery into clinical practice
Goal 3.3—Foster risk-oriented, leading-edge ideas that may forge the next new frontier
Goal 3.4—(n/a)
Goal 3.5—Recruit, retain, and reward an outstanding workforce to achieve our vision for research and creative work
Goal 3.6—Provide superior core research facilities to enhance discovery, innovation, and creative activities

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<th>Research Committee Activity</th>
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<td>Elisabeth H. Boeker Award</td>
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<td>Doris Kemp Smith Award</td>
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<td>Intramural Small Research Grant Awards</td>
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<td>Intramural Travel Awards</td>
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<td>Intramural Research Assistant and Software Awards</td>
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<td>Research Seminars</td>
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IV. FACULTY RESEARCH COMMITTEE

Summary of Activities

Areas of Excellence (AE): Areas of Excellence (AE) were created and funded in FY13. Their composition and structure were carefully reviewed at a Fall 2014 research faculty retreat, and various Research Committee and ORS policies and procedures were revised this year to emphasize the Areas of Excellence. Each area gave a monthly report, which was reviewed at the subsequent Research Committee meeting.

CCTSI Participation: CCTSI funds again supported faculty development and conference presentations.

Elisabeth H. Boeker Award: The Boeker Award was conferred in FY13. The Boeker award guidelines were revised in FY14 to emphasize fit of the research with the Areas of Excellence. A decision was made to issue additional student-faculty research grants (modeled on the Boeker Award) using unexpended Areas of Excellence funding. The call for proposals went out in April 2015, with a due date in September. Two letters of intent were received in June.

Doris Kemp Smith Award: The Doris Kemp Smith Award guidelines were also revised in 2015 to emphasize fit of the research with the Areas of Excellence.

Intramural Travel Awards, RA Awards, and Software License Awards: One faculty received funds in FY14-15 to support an RA. Travel funding was extended on many occasions to both faculty and students—for travel to WIN alone, the Research Committee provided funds to 15 faculty members and 14 students.

Research Seminar Series: The Research Committee sponsored Jennifer Disabato’s presentation, “Improving Transition from Pediatric to Adult Neurology Care: Outcomes of a Funded QI Project Supporting the Expansion of Best Practices.”

Research Retreats: A half-day research retreat was held in November 2014 and another half-day update was held in February 2015. Both retreats focused on the Areas of Excellence and research faculty needs. The CON’s new Associate Dean for Finance, John Moore, attended the February retreat to discuss research funding. The Dean attended a research session at a CON-wide mini-retreat in April 2015 to discuss research funding and priorities. The research faculty forwarded a list of priorities for new faculty hires to the Dean, with the idea of recruiting researchers who fit well with existing Areas of Excellence.

ORS Policies and Procedures:
- ORS policies about peer-reviewed grant submissions which were reviewed with faculty who are planning a grant submission. The new policies emphasize both internal and external review to improve the quality of grant submissions and the likelihood of funding.
- Research faculty merit evaluation guidelines, focused on the criteria for “exceptional” versus “expected” performance in areas such as grant funding and publications.
- CON strategic plan metrics related to research, with feedback provided to the leadership team.

Other Actions: The Research Committee updated its membership rules in the Bylaws, with changes approved at the June 2015 faculty meeting. Changes focused on the definition of “research faculty” and ensuring that at least 50% of the committee membership, which was increased from 3 to 4, are tenured or tenure-track faculty.