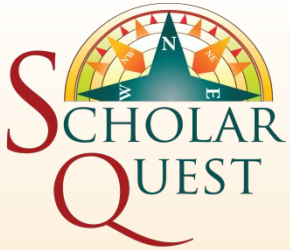




ScholarQuest Orientation 2015

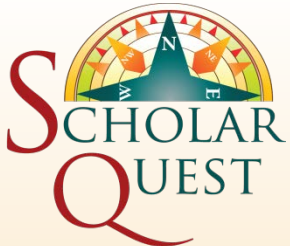
Tomas Nuño, PhD
Research Assistant Professor
Associate Director, ScholarQuest
Department of Emergency Medicine
The University of Arizona

Susanne Olkkola, MEd, MPA
Coordinator, Research Grant Support
Administrative Coordinator, ScholarQuest
Department of Emergency Medicine
The University of Arizona

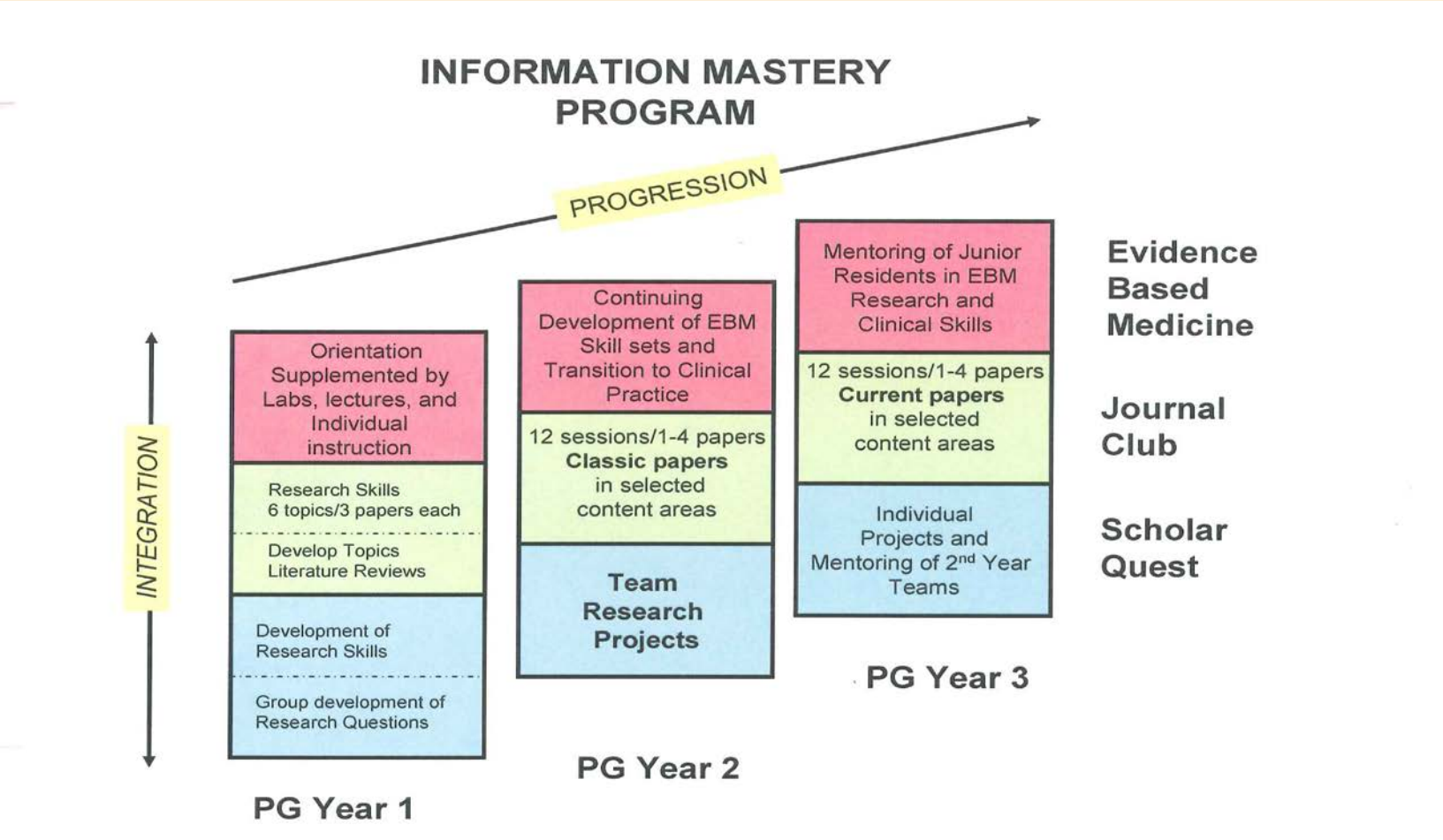


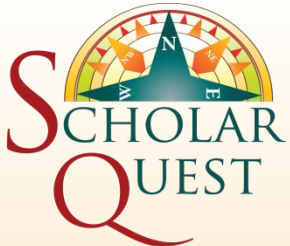
What is ScholarQuest?

- **Research curriculum at the UA DEM**
 - provides residents with hands-on training to conduct, present and publish original hypothesis-driven research in the field of emergency medicine
- **Two main components:**
 - Didactic lectures on basic biostatistics and epidemiology (e.g., study design, hypothesis testing, random error, systematic errors, power and sample size requirements)
 - Direct assistance with the development of a scientific research project from hypothesis to study completion



Integration into IM

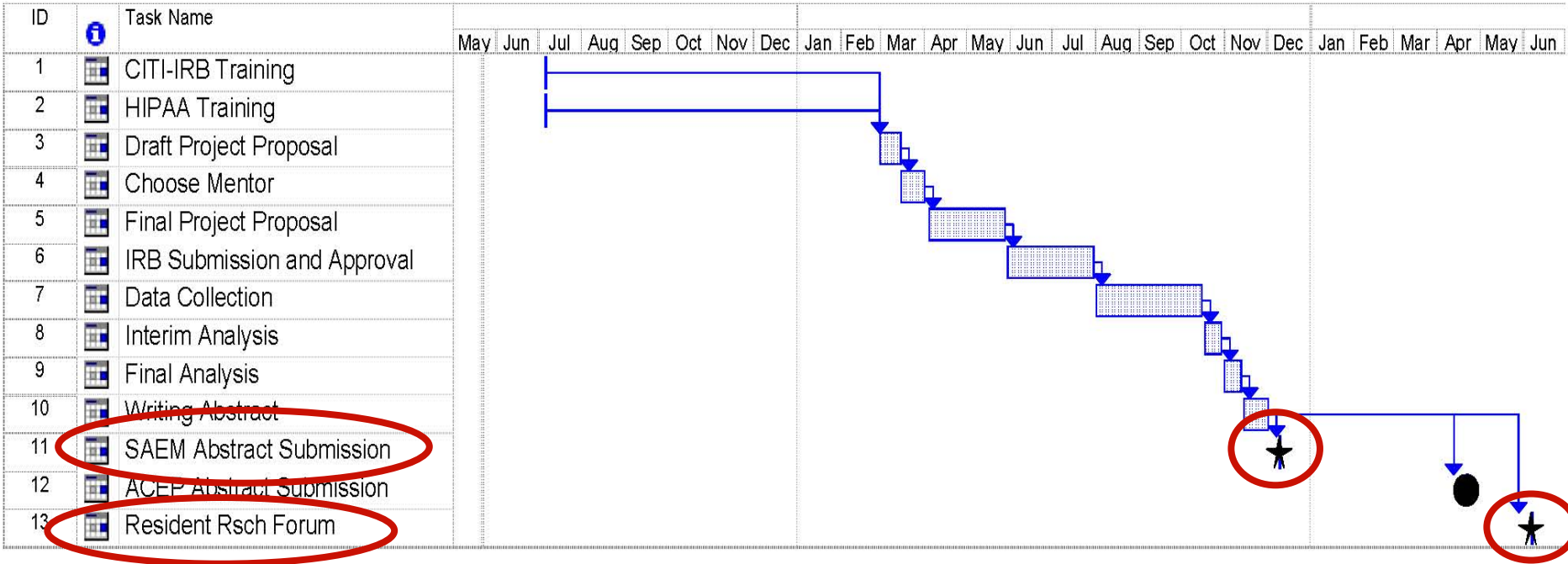




ScholarQuest Research Timeline

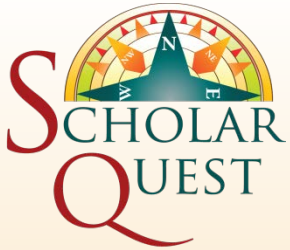
Intern Year

Junior Year



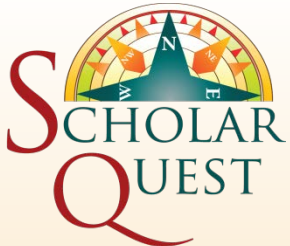
ScholarQuest Timeline & Checklist

<input type="checkbox"/> IRB & HIPPA Training <input type="checkbox"/> Generate/present topics <input type="checkbox"/> Research topic think tanks <input type="checkbox"/> Faculty DataBlitz <input type="checkbox"/> Develop quests & hypotheses <input type="checkbox"/> Finalize research ?s <input type="checkbox"/> Background Literature Search <input type="checkbox"/> Form research teams <input type="checkbox"/> Assigned mentor <input type="checkbox"/> Submit study plan/abst. <input type="checkbox"/> Biostats/Epi consult <input type="checkbox"/> Submit IRB application	<input type="checkbox"/> Biostats / Epi consult <input type="checkbox"/> Conduct pilot / dry run <input type="checkbox"/> Implement Study <input type="checkbox"/> Collect & enter data <input type="checkbox"/> Preliminary analysis <input type="checkbox"/> Informal presentation <input type="checkbox"/> Data analysis <input type="checkbox"/> RD leadership consult <input type="checkbox"/> SAEM Abstract submission <input type="checkbox"/> SAEM Regional/National presentation <input type="checkbox"/> Present at Annual Research Forum <input type="checkbox"/> Begin manuscript	<input type="checkbox"/> Complete study <input type="checkbox"/> Complete manuscript <input type="checkbox"/> Present at SAEM or other meeting
<p>(Check off monthly meetings)</p> <p>J A S O N D J F M A M J</p> <p>Intern Year (1)</p>	<p>(Check off monthly meetings)</p> <p>J A S O N D J F M A M J</p> <p>Junior Year (2)</p>	<p>(Check off monthly meetings)</p> <p>J A S O N D J F M A M J</p> <p>Senior Year (3)</p>

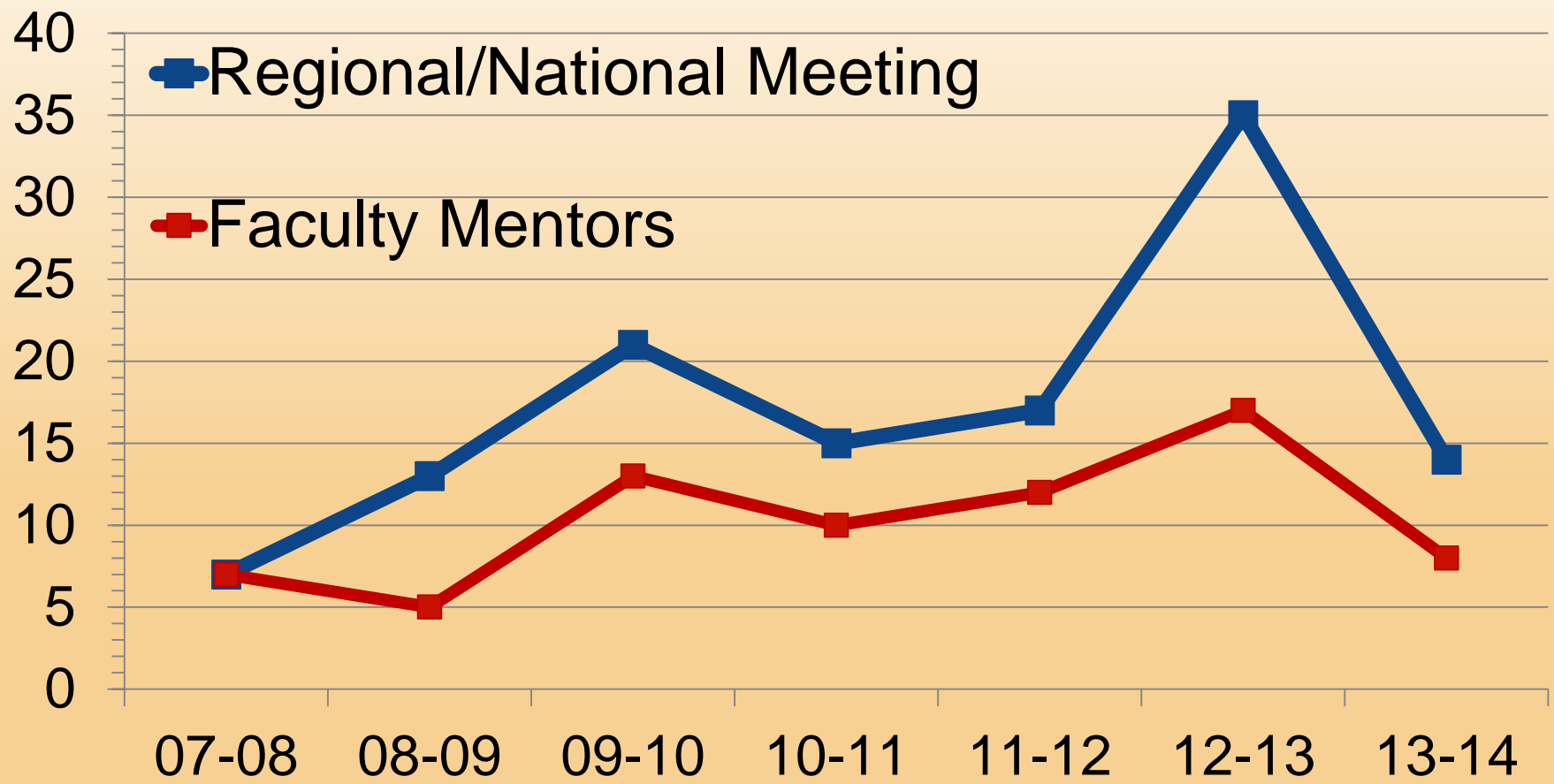


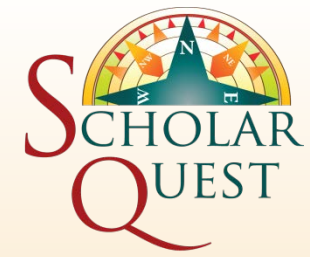
2015-2016 Schedule

University C – SQ	South C – SQ	University C – JC	South C – JC
July 14 11a-12p	July 15 11a-12p	July 21 11a-12p	July 1 10a-11a
Sept 1 11a-12p	Sept 2 11a-12p	Aug 11 11a-12p	Aug 12 9a-10a
Nov 17 7a-8a	Nov 18 11a-12p	Sept 15 11a-12p	Sept 9 9a-10a
Jan 19 11a-12p	Jan 20 11a-12p	Oct 13 11a-12p	Oct 14 9a-10a
March 8 11a-12p	March 9 11a-12p	Nov 10 11a-12p	Nov 11 9a-10a
May 31 11a-12p	June 1 11a-12p	Dec 8 11a-12p	Dec 9 10a-11a
		Jan 5 11a-12p	Jan 6 9a-10a
		Feb 2 11a-12p	Feb 3 9a-10a
		March 29 11a-12p	
		April 19 11a-12p	April 20 9a-10a



Historical Trend: Abstracts & Mentors



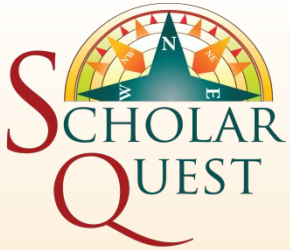


Using Secondary Data for Research



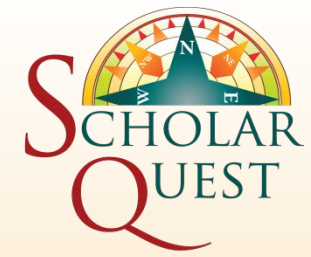
Why use it?

- **Convenience**
 - Lots of data sources
 - IRB approval
- **Cost**
 - Free to almost free
- **Usefulness**
 - Allows study of rare events



Examples of Secondary Data

- **CDC**
 - Behavioral Risk Factor Surveillance System (BRFSS)
 - National Health And Nutrition Examination Survey (NHANES)
 - National Hospital Ambulatory Medical Care Survey (NHAMCS)
- **NCI**
 - Surveillance, Epidemiology, and End Results Program (SEER)
 - Health Information National Trends Survey (HINTS)
- **AHRQ**
 - Healthcare Cost and Utilization Project (HCUP)
 - Medical Expenditure Panel Survey (MEPS)



Overview of the HCUP Data



Research Using HCUP Data



Costs of care	Septicemia was the most expensive reason for hospitalization in 2012—totaling over \$20 billion in aggregate hospital costs (NIS)
Access to care	Americans in low-income areas visit EDs at rates 90 percent higher compared to those in the highest income areas (NEDS)
Quality of care	From 2004 to 2009, the overall inpatient mortality rate for hospital admissions with heart attack decreased significantly overall and for both genders and all expected payment sources (NIS)
Readmissions	For CHF, schizophrenia, and renal failure, at least 1 in 5 patients were readmitted within 30 days (SID with readmissions link)
Patient Safety	In 2009, postoperative sepsis occurred in 15 of 1,000 elective-surgery admissions of length 4 or more days, age 18 and over United States (NIS and PSI)
Geographic variation	ED visits were higher in counties with fewer primary care MDs per capita (SEDD)



HCUP Nationwide Databases



II-CUP
HEALTHCARE COST AND UTILIZATION PROJECT

National (Nationwide)
Inpatient Sample
(NIS)



Inpatient discharge data for a
**sample of discharges from all
hospitals** in SID

Kids' Inpatient
Database
(KID)

Pediatric inpatient hospital discharge
data from a **sample of pediatric
discharges** in SID

Nationwide Emergency
Department Sample
(NEDS)

Emergency department data (treat and
release & admitted) from a sample of
hospitals in SID and SEDD



HCUP State Databases



State Inpatient
Databases
(SID)

All inpatient hospital discharge data (including those admissions that started in the ED) from participating HCUP States

State Ambulatory
Surgery & Services Databases
(SASD)

Ambulatory surgery data (hospital based some freestanding) and other outpatient services from participating HCUP States

State Emergency Department
Databases
(SEDD)

Emergency department data (treat and release) from participating HCUP States



Databases



● Nationwide

- NIS (1988-2012)
- NEDS (2006-2012)
- KID (1997, 2000, 2003, 2006, 2009, 2012)

● SID

- AZ (1990-2013)
- CA (2003-2011)
- NV (2002-2013)
- NM (2009-2013)

● SASD

- CA (2005-2011)
- NV (2011-2013)

● SEDD

- AZ (2005-2013)
- CA (2005-2011)
- NV (2010-2013)

Why do research?

