



VANDERBILT UNIVERSITY
MEDICAL CENTER

CTSA Child Health Oversight Committee Metrics of Success Pilot

Descriptive Statistics and Qualitative Data

Shari Barkin, MD, MSHS

On behalf of the Metrics of Success Workgroup

Child Health Oversight Committee Meeting

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Methodology

Metrics developed by Child Health Research *Metrics of Success* Workgroup to
(1) identify consistent ways in which an institution can track its own child health research trajectory over time, and
(2) measure the impact of the CTSA on child health related research.

Workgroup members:

Mary Aitken, Arkansas
Leon Epstein, Northwestern
Margaret Hostetter, Yale
Ellis Neufeld, Harvard
Anthony Philipps, UC Davis
Peter Szilagyi, Rochester

Steven Alexander, Stanford
Alejandro Hoberman, Pittsburgh
Charles Huskins, Mayo
Todd Nick, Arkansas
Thomas Shanley, Michigan



Methodology

- Referencing NIH definitions for clinical research, the Workgroup defined “***Child health research***” as “*all clinical and translational research involving subjects $< \text{ or } = 21$ years of age that impacts children’s health or addresses childhood diseases. This includes maternal-fetal research, as well as studies involving infants, children and adolescents*”.
- Intended that only studies in which human subjects were involved should be counted (“*touching people research*”).



Methodology

- Metrics definitions circulated in June 2009
- Pilot project launched in October 2009. Collection of data from CC-CHOC CTSA's by March 2010 included in the database.
- REDCap database created by Vanderbilt Institute for Clinical and Translational Research (VICTR) to allow data entry from each CTSA site.
- Quantitative and qualitative data collected on each metric.



Participation

- Participation rate was 80% (37/46)
 - one CTSA awardee not a member of CC-CHOC but 46 used as denominator.
- No CC-CHOC responder was able to provide data for all eight metrics

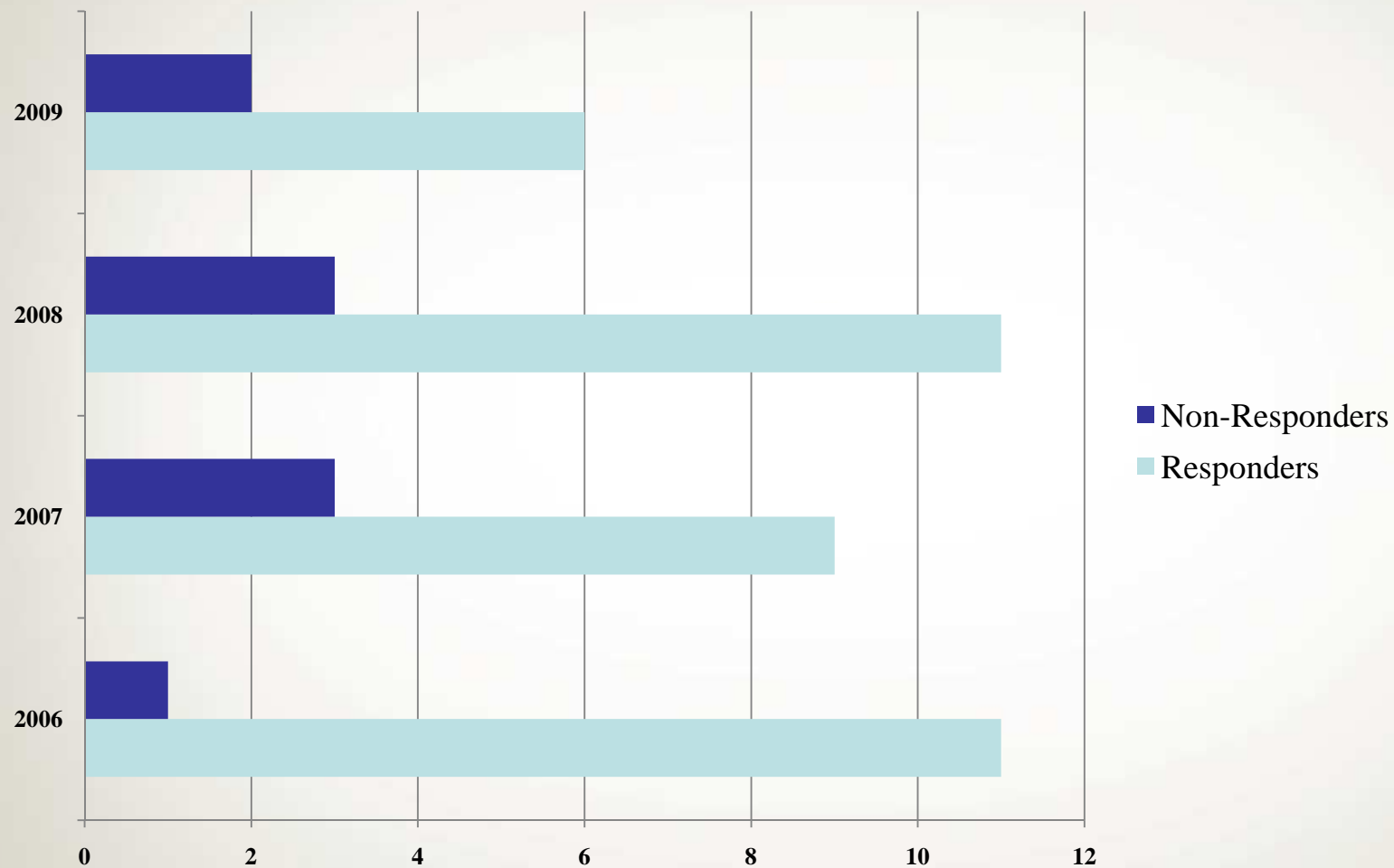


Characteristics of Responders vs. Non-Responders

Year of Entry to CTSA	Responders=37	Non-Responders=9
2006	29.70%	8.40%
2007	24.30%	33.30%
2008	29.70%	33.30%
2009	16.20%	22.20%



Responders vs. Non-responders by year of entry into CTSA





Characteristics of Responders vs. Non-Responders

***presence of Children's Hospital determined by search of CTSA partner listings and of listed partners' websites.**

Presence of Children's Hospital* as CTSA partner?	Responders=37	Non-responders=9
yes	32 (86.5%)	6 (66.6%)
no	5 (13.5%)	3 (33.3%)

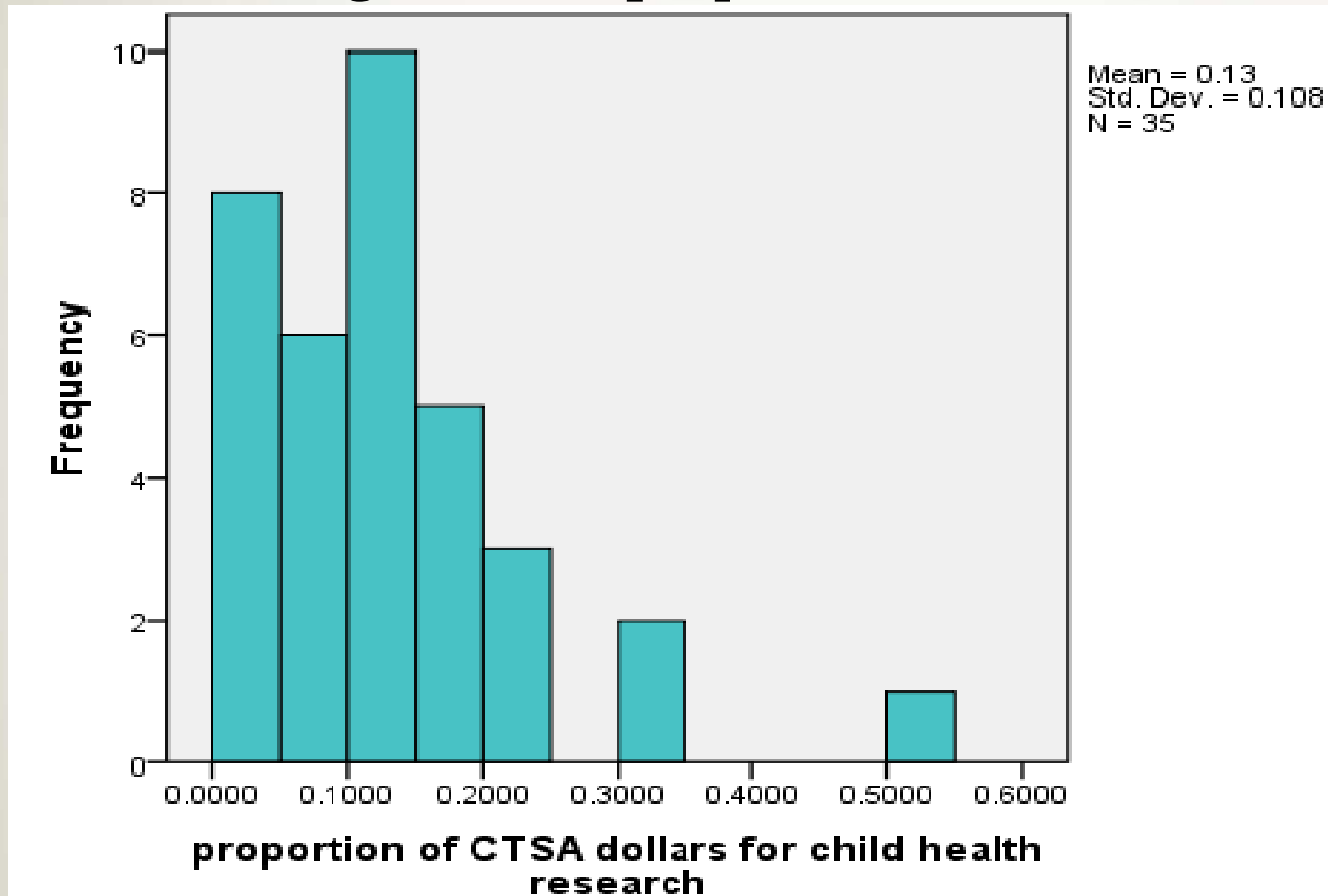


Metrics of Success At A Glance: Descriptive statistics

Metric	N	Mean	Median	St. Dev.
1	35	0.13	0.12	0.11
2a	30	0.24	0.24	0.11
2b	26	0.23	0.22	0.11
3	25	0.21	0.18	0.16
4	32	0.16	0.15	0.08
5a	35	0.27	0.23	0.20
5b combined	32	0.22	0.21	0.15
5b in-patient	15	0.16	0.11	0.19
5b out-patient	22	0.24	0.24	0.13
6	26	21.83	3.0	43.20
7	35	0.26	0.18	0.24



Metric 1: Absolute CTSA grant dollars supportive of child health investigators as a proportion of total CTSA budget (N=35).





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- Issues Identified:
 - Different reporting periods used (most 12 month periods, some less for new CTSA's and one used multiple years).
 - Some used direct only, others total funds.
 - Many institutions contributed significant additional institutional funds toward child health research, but metric asked only for CTSA dollars. One institution included funds “matched” by outside by other funders with CTSA dollars for pilot research.

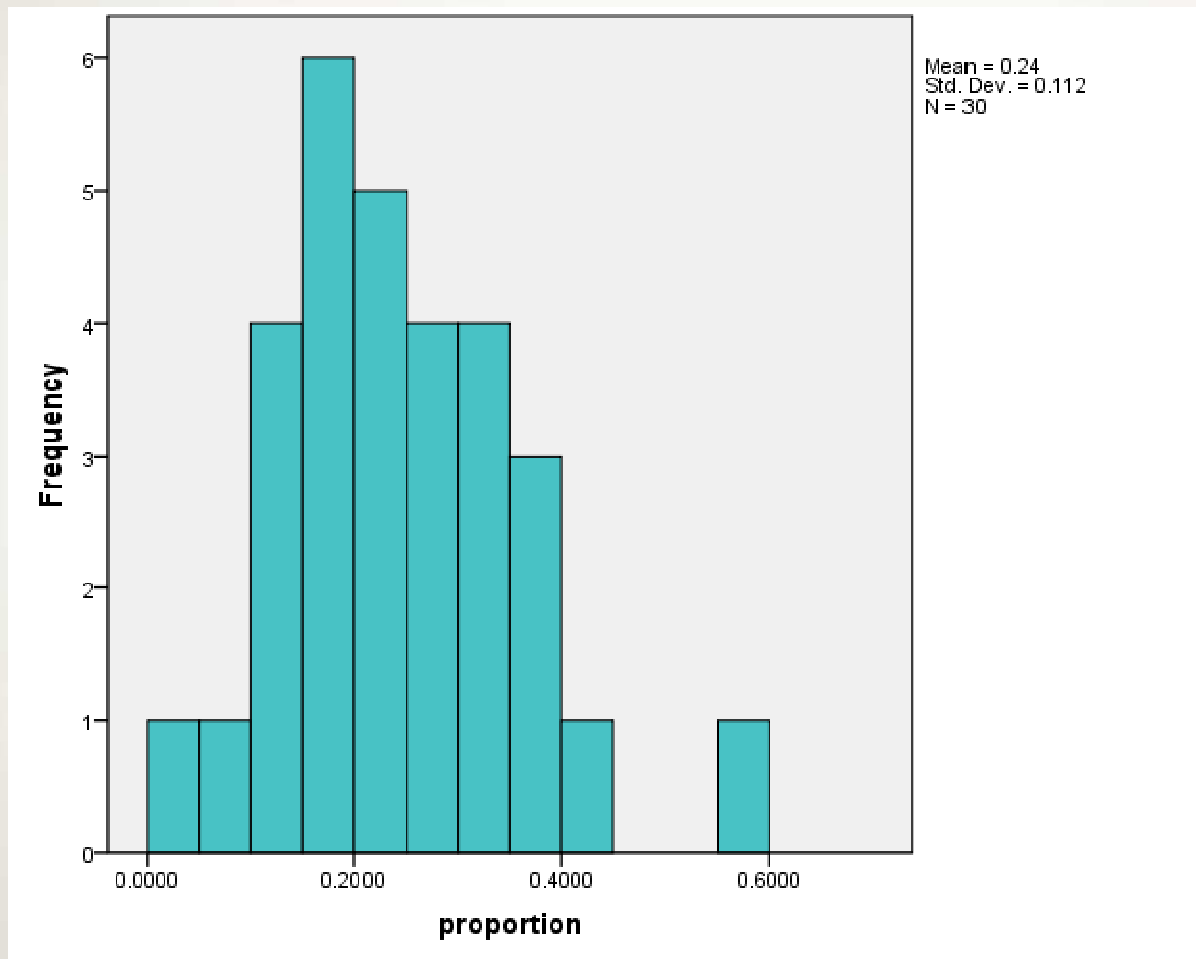


Metric 1: continued

- Issues Identified:
 - All found it difficult to quantify the time that individuals contributed toward building the infrastructure.
 - Some noted that the dollars were important measure, but perhaps as CTSA's develop other measures of impact, such as subsequent child health research grants and/or publications from research might be considered.

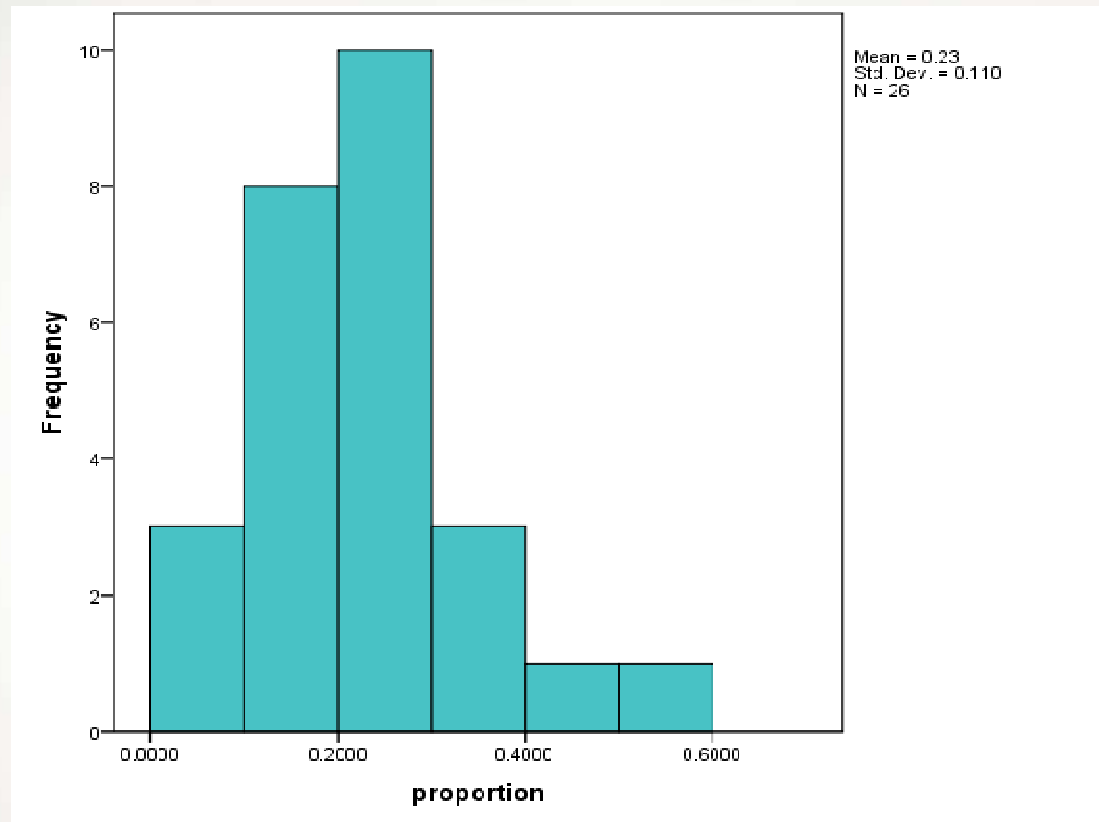


Metric 2 a: IRB *approved* child health research as a proportion of all IRB *approved* research (N=30)



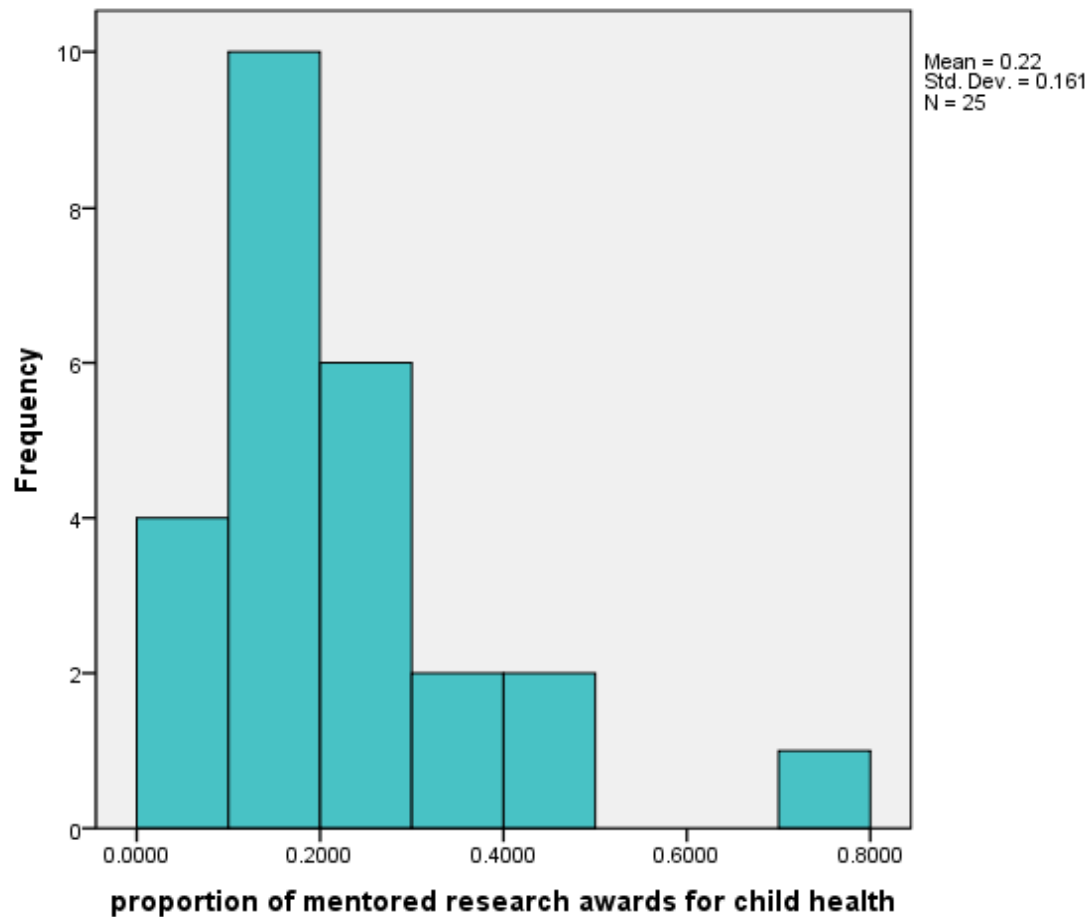


Metric 2b: IRB approved and funded studies related to child health as a proportion of all IRB approved and funded studies (N= 26)





Metric 3: Proportion of mentored research awards for pediatric/child health trainees to all these mentored research awards institution-wide (N= 25).



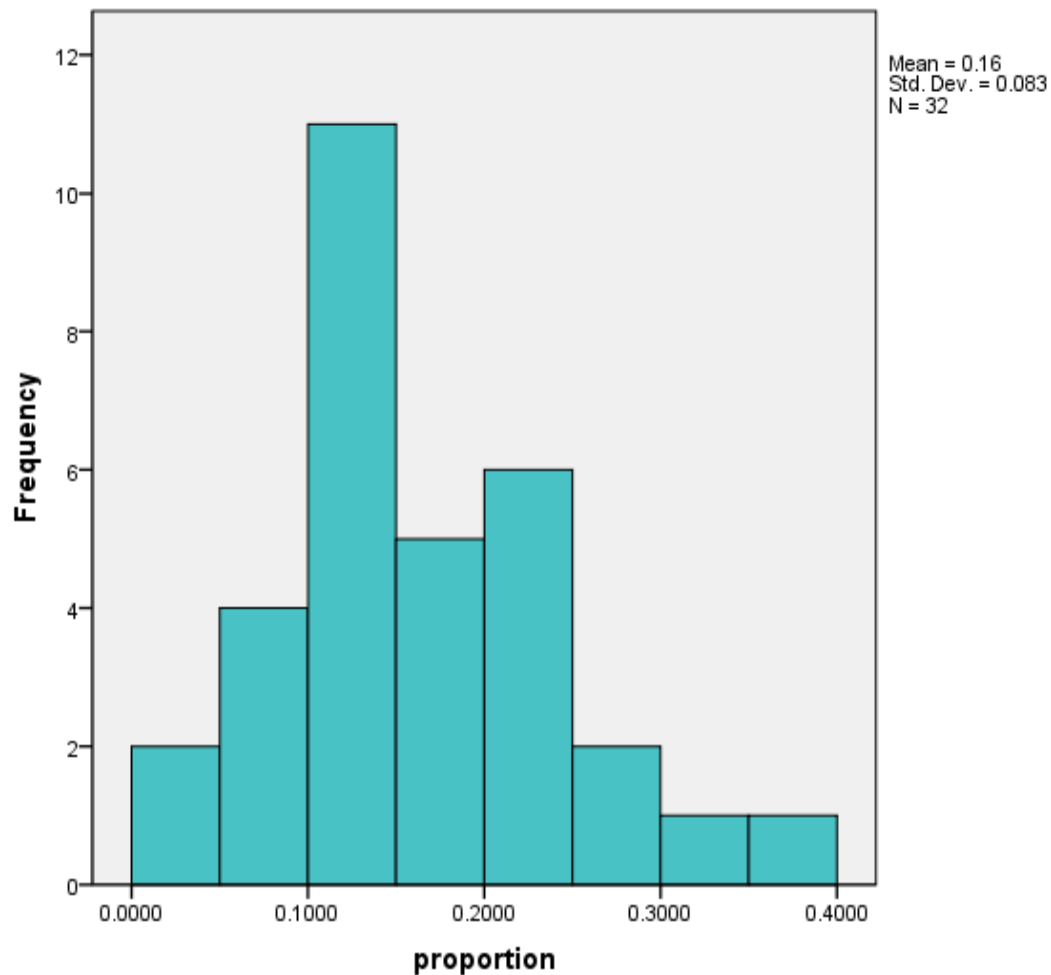


Metric 3: Proportion of mentored research awards for pediatric/child health trainees to all these mentored research awards institution-wide.

- Issues Identified:
- Not all institutions maintained a systematic database of training awards. Some went to NIH website to get count.
- Foundation and society awards especially difficult for many to track.
- Not sure if number of awards or number of trainees was more appropriate



Metric 4: Proportion of total CTSA-funded pilot grants that supported child health research. (N= 32)



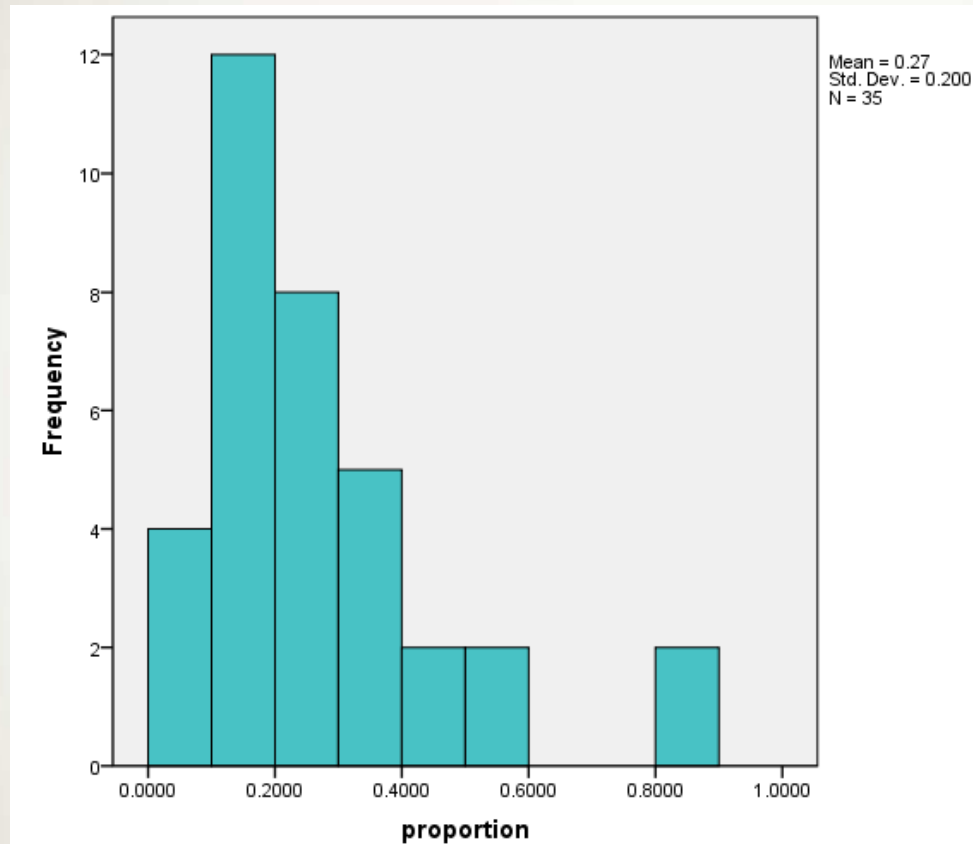


Metric 4: Proportion of total CTSA-funded pilot grants that supported child health research.

- Issues Identified:
 - Many institutions used other funds to support pilot research or research support translational child research activities (equipment vouchers, consultations related to design, etc.). These were not always counted because metric specified CTSA funds.

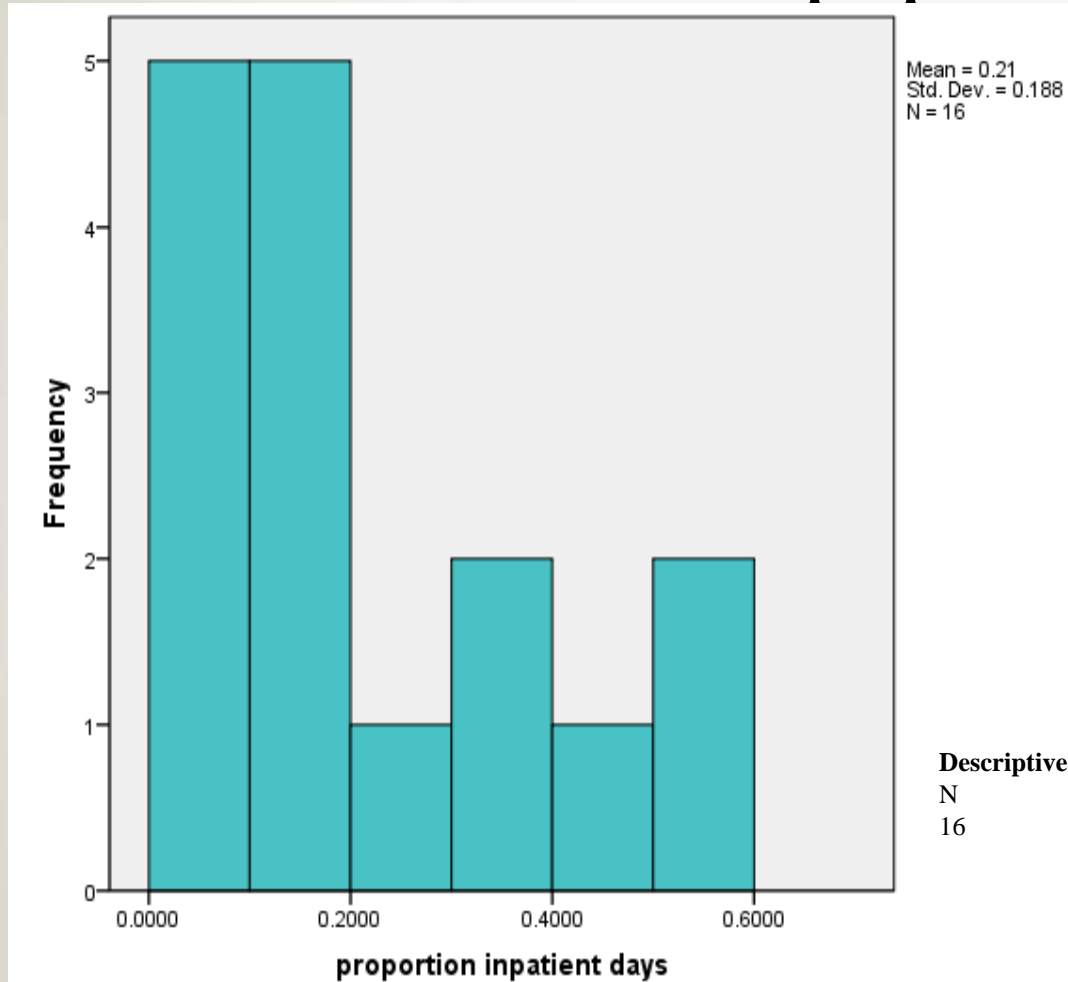


Metric 5a: *Active child health studies* conducted in the GCRC as a proportion of total GCRC studies. (N=35)





Metric 5b: Active GCRC *inpatient days* utilized for child health as a proportion of totals (n=16).

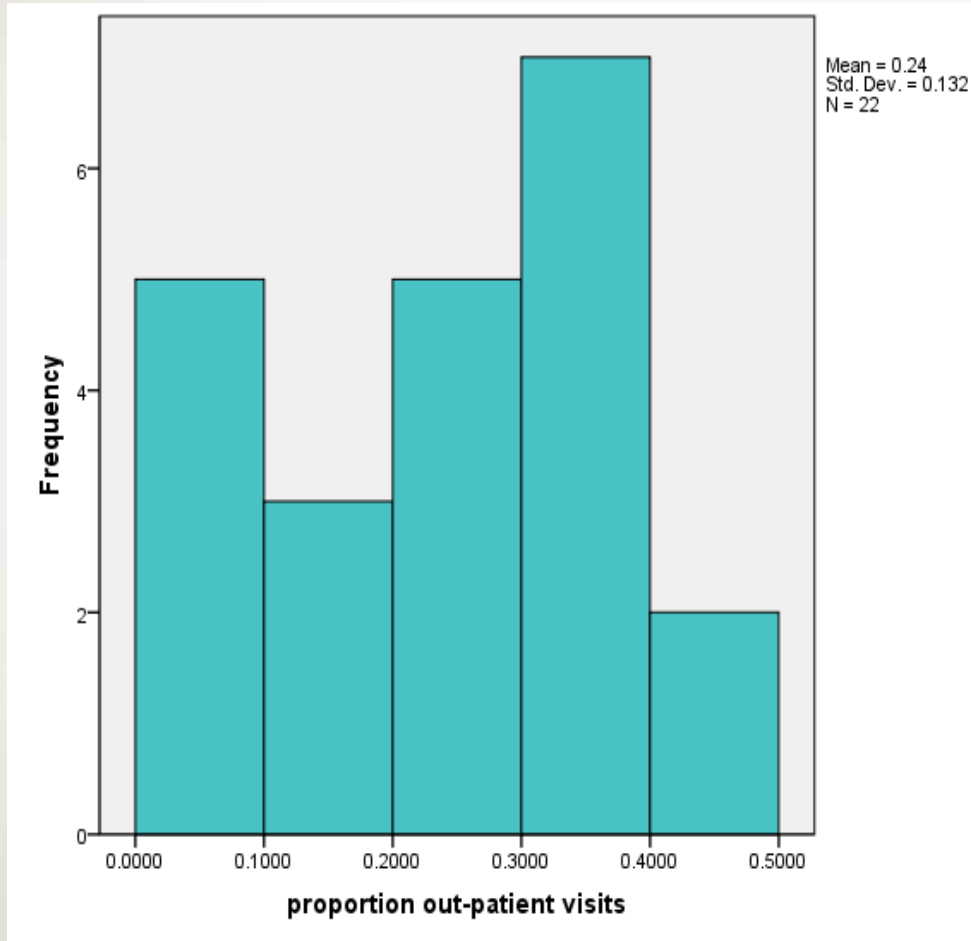


Descriptive Statistics

N	Minimum	Maximum	Mean	Std. Deviation
16	.0000	.5780	.214875	.1882838



Metric 5b: Active GCRC *outpatient visits* utilized for child health as a proportion of totals. (N=22)





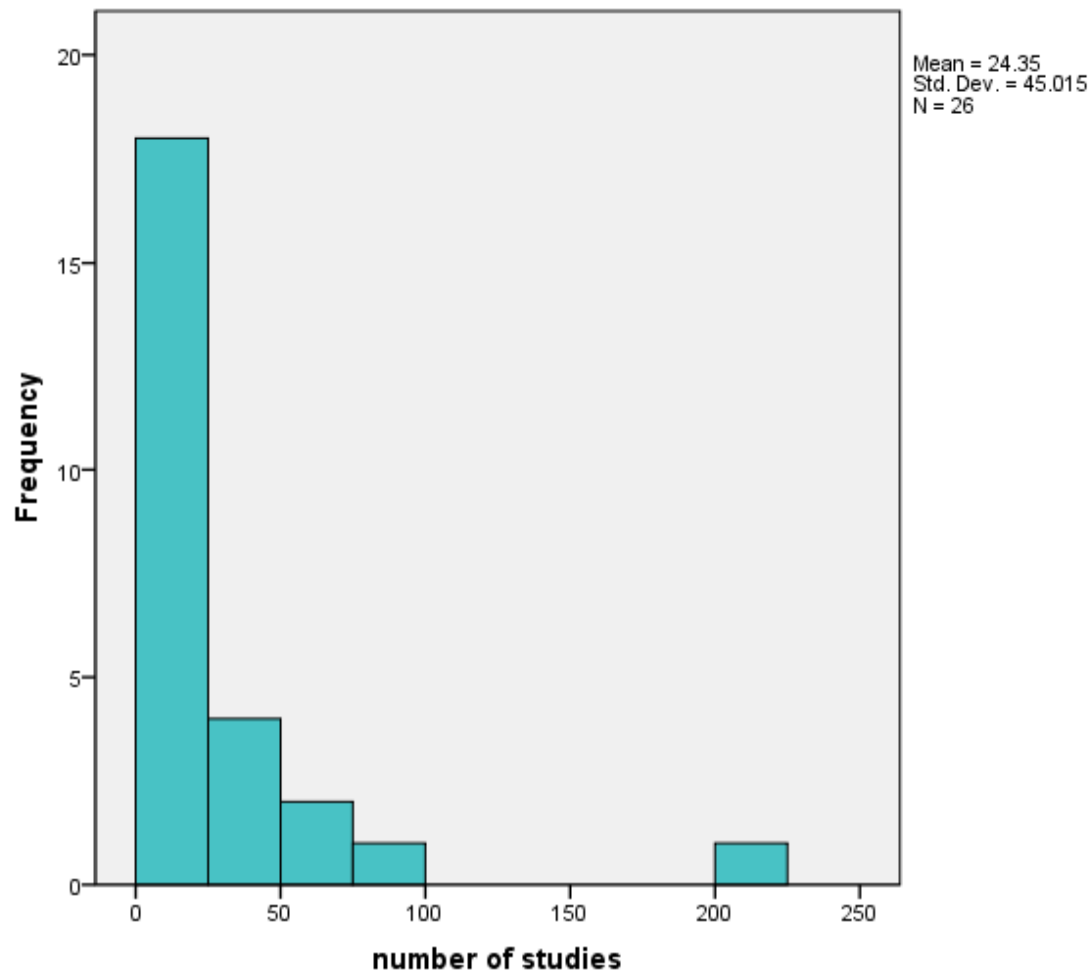
Metric 5a: *Active child health studies* conducted in the GCRC as a proportion of total GCRC studies.

Metric 5b: *Active GCRC inpatient days and outpatient visits* utilized for child health as a proportion of totals.

- Issues Identified:
 - Some institutions maintained separate databases for adult and child studies so the denominator was difficult for some to get.
 - Institutions handled the “18 years and older” studies in different ways.
 - The original metric suggested combining inpatient days and outpatient visits which tended to dilute the stronger proportions of child health outpatient research. Some institutions submitted the data so that this could be separated in the analysis.



Metric 6: Number of studies involving pediatric subjects in which more than one CTSA is participating. (N=26)



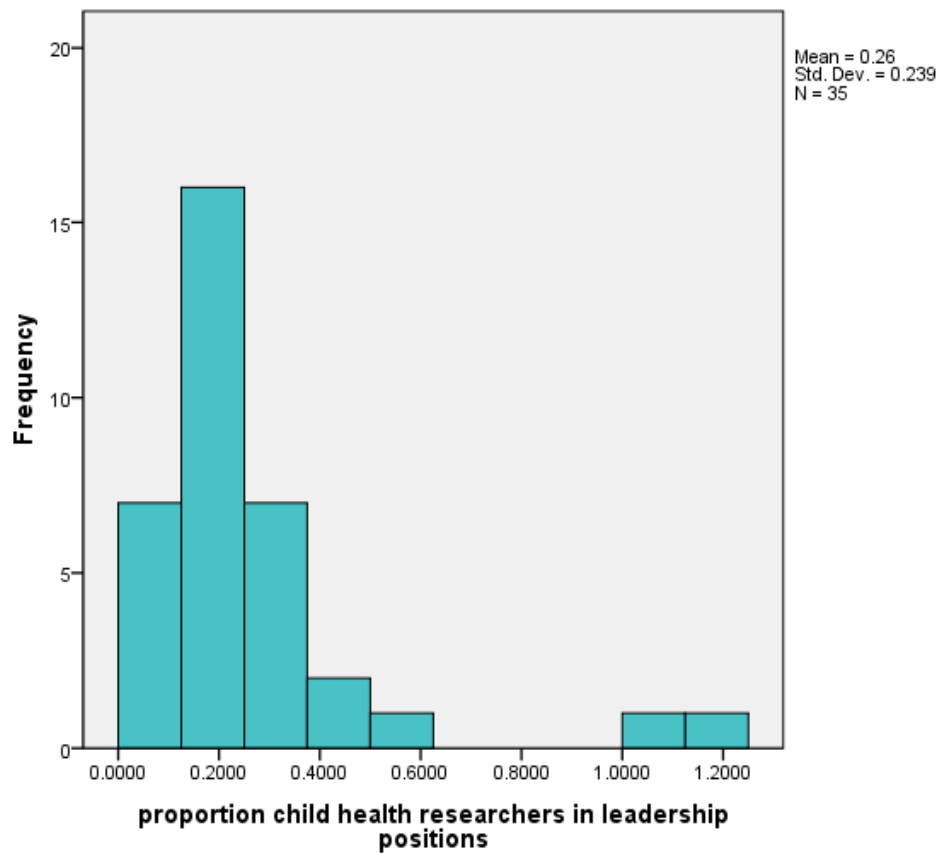


Metric 6: Number of studies involving pediatric subjects in which more than one CTSA is participating.

- Issues Identified:
 - Few grant databases tracked institutions participating in multisite studies or could identify other than the site of origin.
 - Some confusion over whether studies funded by other sources should be included.
 - Some not sure if sub-contracts for specific services should be included.



Metric 7: Number of pediatric/child health investigators who have substantial CTSA leadership roles as a proportion of total individuals in such leadership roles.





Metric 7: Number of pediatric/child health investigators who have substantial CTSA leadership roles as a proportion of total individuals in such leadership roles.

- Issues Identified:
 - Some sites included external and internal advisory committees and some did not.
 - Some included participants in KFCs and other CTSA committees.
 - Some included institutional “component” leaders, but not sure how that was defined or if similar roles exist at other institutions.



Metric 8: Please describe innovative approaches to enhancing child health research within your CTSA.

- Established a multidisciplinary child health research team across schools and departments.
- Established a pediatric research development team to interface with basic and clinical scientists to proactively design collaborative studies and help researchers envision the translational value of their discoveries.



Metric 8: continued

- A specific departmental subcommittee was established to plan for better pediatric integration with the infrastructure of the CTR program. The subcommittee proactively encouraged colleagues to apply for pilot funds, attend educational sessions, etc.
- As a result of community engaged research activities a community-wide Child Health Research Network is being established.
- Used CTSA funds as a tool to raise “matching” funds for pediatric research locally.



Metric 8 continued....

- Have inaugurated a pediatric research day event at the institution to encourage focus on pediatric research.
- Have used funds to provide subsidies for pediatric research and incentives for new hires to conduct CT child health research.
- Have created a competition for child health research proposals with the winners having some of their clinical time “bought out” to enable them to devote more effort to research.



Metric 8 continued....

- Have begun to develop unique and specific focal areas for child health research at their institution—e.g., neonatal neurology, or genetic bases for preterm birth.
- Has convinced institution to turn over all “indirects” to child health research.



Next steps

- Discuss institutional results with CTSA PIs
- Present to CTSA Executive Steering Committee
- Which metrics to keep as we move forward this year
 - Which metrics are most useful at this stage of CTSA development?
- Write up a manuscript that is a multi-CTSA effort
- Present back to NCRR



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