



ECHO
Environmental influences
on Child Health Outcomes
A program supported by the NIH

**IdEA States
Pediatric Network**



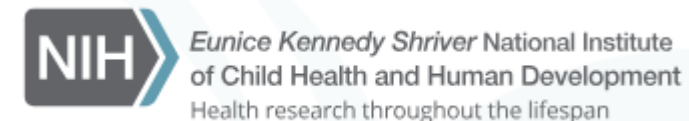
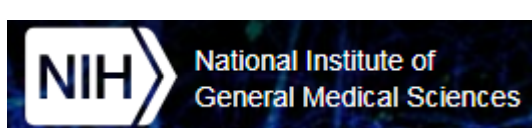
Leveraging OUHSC Clinical Data Warehouse for Emergency Medicine Research



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Biomedical & Behavioral Methodology Core (BBMC)

July
2020

Award Numbers:
UG1OD024950
U54GM104938



Terms

- **EMR** (or EHR): Electronic Medical/Health Records

A huge database with patient records used by providers

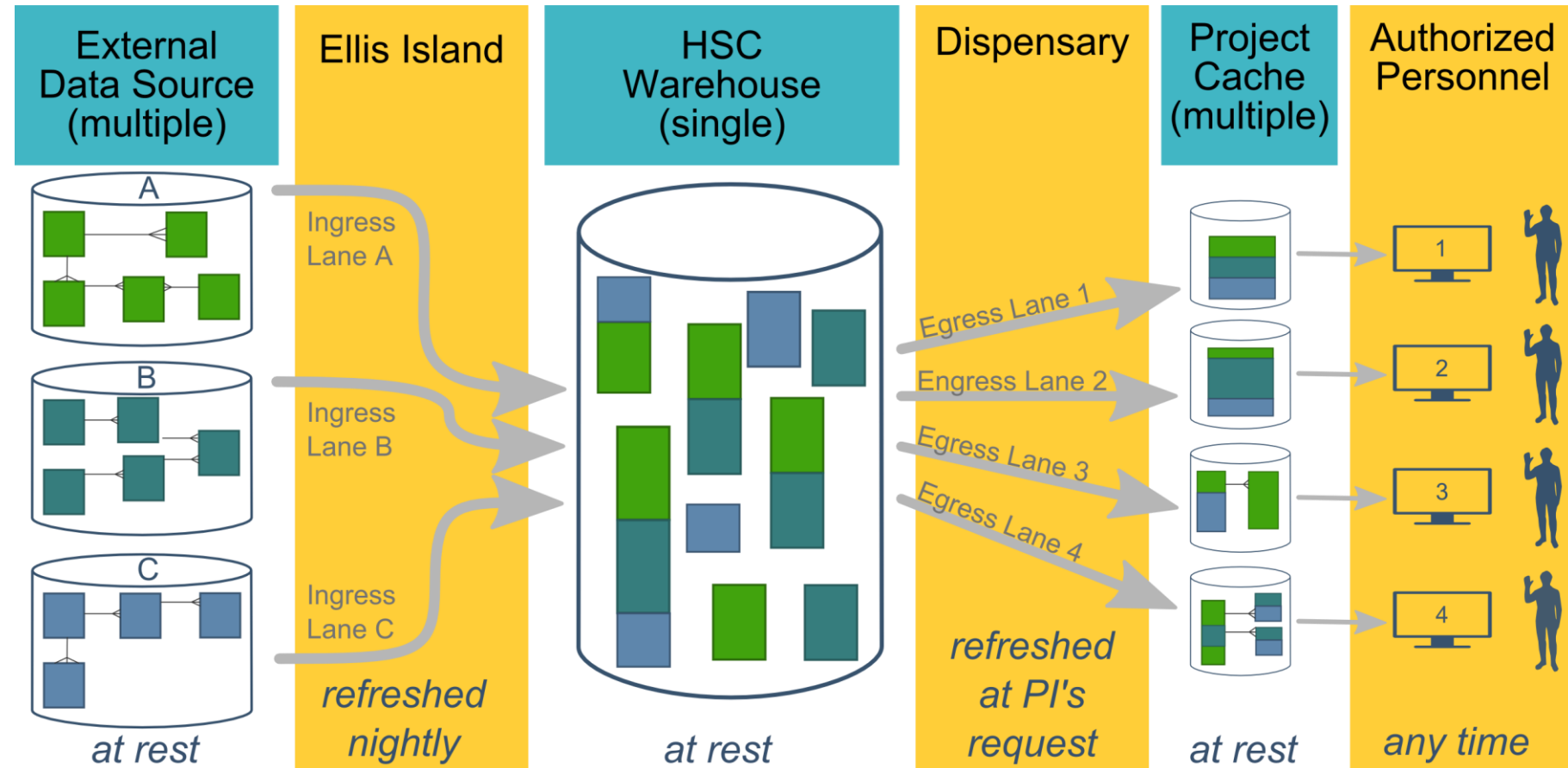
- **CDW**: Clinical Data Warehouse

A collection of databases (such as EMRs and project-specific datasets) that has been transformed to make research more efficient and complete

Prairie Outpost – CDW (Clinical Data Warehouse)

<https://github.com/OuhscBbmc/prairie-outpost-public>

Ecosystem Architecture

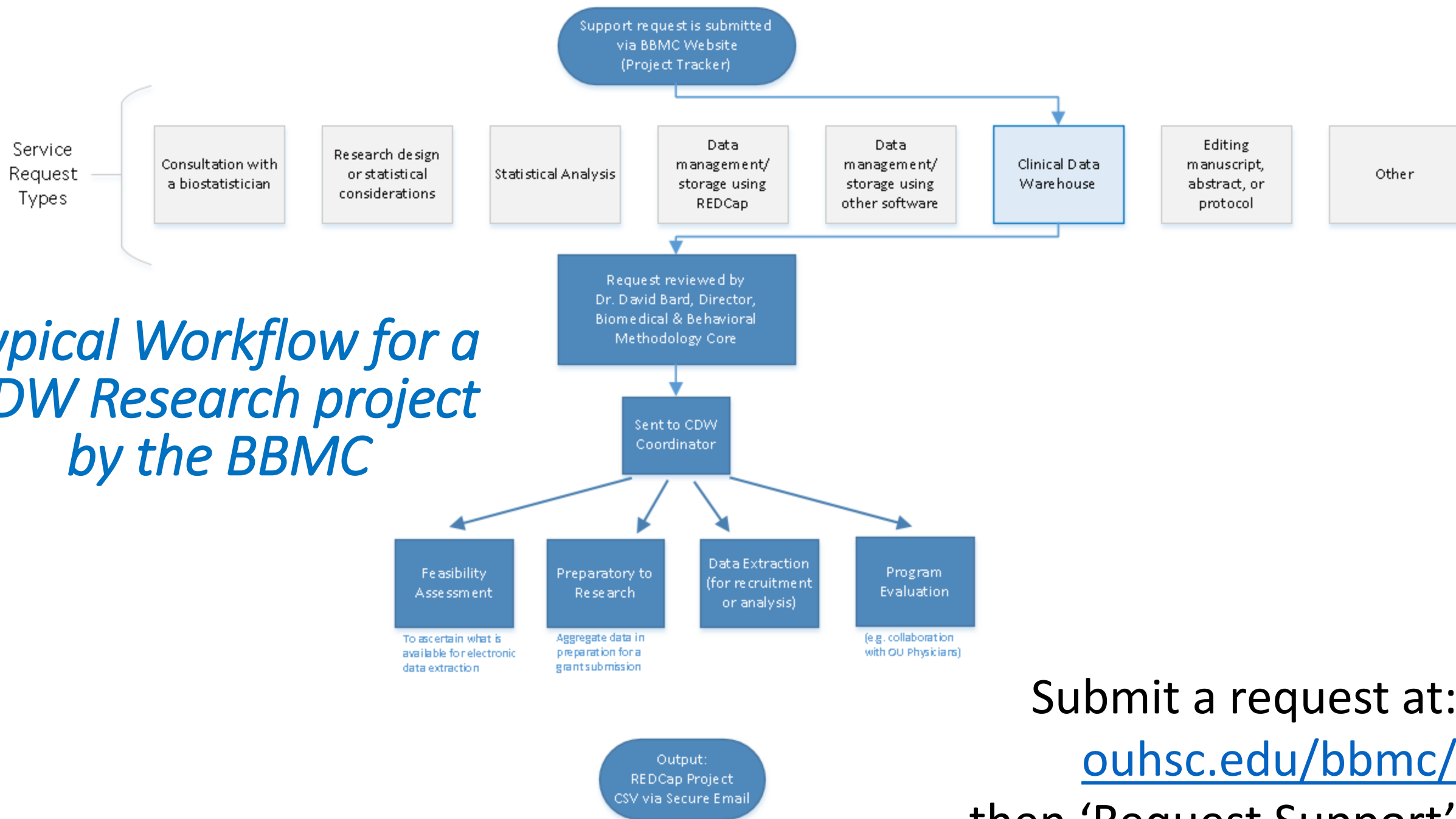


- **Data Source** (column 1): contains unique info
- **Warehouse** (column 3): contains copy after manipulation
- **Project Cache** (column 5): contains copy of copy after a lot of manipulation

HSC Data Sources

- Patient
 - Outpatient (Centricity)
 - Billing and Claims Data
 - Inpatient (Meditech)
 - *Dozens* of departmental sources
 - Biomedical Research Data
 - Epic (in ~1 year)
- Provider
- External Agencies
 - Service Provided (by the Health Dept of Oklahoma)
 - Child Protective Services (Oklahoma Dept of Human Services)
 - Immunization (Health Dept of Oklahoma)
 - Vital Records (Health Dept of Oklahoma)
 - ...
 - Multi-state collaborations (in the future)
- Administrative Cost
- Employee & Student

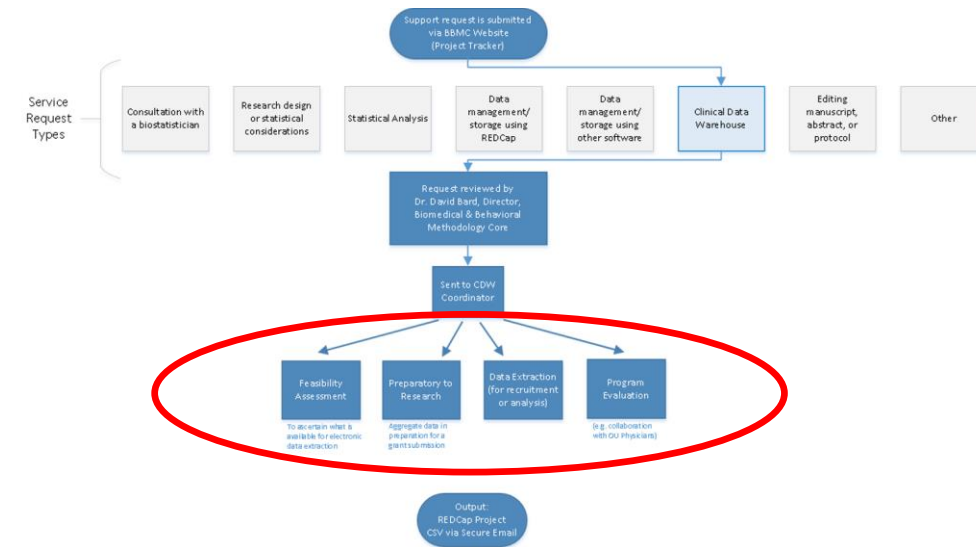
Typical Workflow for a CDW Research project by the BBMC



Submit a request at:
ouhsc.edu/bbmc/
then 'Request Support'

Commonly Requested CDW Support Services

- Feasibility assessment in preparation for research
(20% of projects; 10% of CDW staff time)
- Static eligibility
(70% of projects; 20% of CDW staff time)
 - Virtually all projects require identification of a patient pool
- Rolling eligibility
(30% of projects; 30% of CDW staff time)
 - Remember study team's assessment of eligibility as well as the participant's response
 - Daily automation requires stability & good logging;
e.g., a 3 hour delay might mean zero subjects are enrolled
- Clinical outcomes for retrospective investigations
(50% of projects; 30% of CDW staff time)
- Administrative outcomes for quality improvement
(10% of projects; 2% of CDW staff time)
- Program evaluation
(20% of projects; 8% of CDW staff time)



Starting a CDW Project

Submit a request at <https://ouhsc.edu/bbmc/>, then click “Request Support”

Please complete the form and a representative will contact you soon.
Thank you!

Date of request: Click now.
* must provide value

Project Title
* must provide value

Do you have any deadlines regarding this request?
☐ Yes
☐ No

Primary Contact Information

Primary Contact: First Name
* must provide value

Primary Contact: Last Name
* must provide value

Primary Contact: Phone Number
* must provide value
(555) 123-4567 ext89012

Primary Contact: E-Mail Address
* must provide value

Principal Investigator Information Complete if different from Primary Contact

Principal Investigator: First Name

Requestor Information

Requestor Type
* must provide value

☐ Principal Investigator
☐ Research Nurse
☐ Research Coordinator
☐ Faculty
☐ Staff
☐ Other

The following question is for the person filling out this request form:
☐ Yes
☐ No

Are you a BBMC member?
☐ Yes
☐ No

Do you have a BBMC member that you would prefer to work with on this request?
☐ Yes
☐ No

Please upload your research protocol or grant research plan.
[Upload document](#)

College
* must provide value

☐ Medicine
☐ Other

Please indicate the services requested:
Check all that apply.

☐ Consultation with a biostatistician
☐ Research design or statistical considerations
☐ Statistical Analysis
☐ Data management/storage using REDCap
☐ Data management/storage using other software
☐ Clinical Data Warehouse
☐ Editing manuscript, abstract, or protocol
☐ Other

Submit

This helps us prep for the initial meeting w/ you

This box routes it to the CDW team

Rule of Thumb for Involving CDW Team

- A one-time Meditech extract:
contact OU Medicine directly *or* we're happy to help structure the request.
- Recurring Meditech extracts for rolling recruitment:
please contact the CDW
- Research involving merged Centricity & Meditech:
please contact the CDW
- Research involving (a) data collection outside the EMRs or (b) supplementing chart review:
please contact the BBMC/CDW about REDCap (<https://ouhsc.edu/bbmc/>)

Terms

- Centricity EMR: clinical info for outpatients since ~2010
- Centricity Business: scheduling & billing info for outpatient since ~2010
- Meditech: EMR for ED & inpatients since the bronze age
- Epic: Upcoming EMR that will replace Centricity, Meditech, and many others. May not be useful for your research (at least in time to start your fellowship research project)
- REDCap: campus-recommended software for collecting PHI outside the EMRs (<https://www.project-redcap.org/>)