VINCI Data Services

An Overview

Steven J. Oostema, MS
Overview

1. VINCI
2. Data in VINCI
3. VINCI Services
   a. Feasibilities
   b. Data Needs Assessment (DNA)
   c. Support for the prospective study recruitment (Patients List)
   d. Cohort Consultation
   e. Education
What is VINCI?
What is VINCI?

VA Informatics and Computing Infrastructure (VINCI)

- Chart Abstraction
- Data Services
- DaVINCI
- Development
- Industry
- MVP

- Natural Language Processing
- OMOP
- Precision Medicine
- Research
Data within VINCI
• 25+ Million Patients
• Over 1,400 medical centers (inpatient), outpatient clinics, nursing homes, and non-VA medical centers
• Veterans Health Information Systems and Technology Architecture (VistA) the VA electronic medical record
• DaVINCI (Dept. of Defense)
• COVID-19 Shared Data Resource
• VA Millennium (Cerner)
DATA in VINCI

- Million Veteran Program (MVP approved studies)
- United States Veterans Eligibility Trends and Statistics (USVETS)
- VA Surgical Quality Improvement Program (VASQIP)
- Health Economics Data
- Geocoded Data
- Much more…
What is VINCI Services
VINCI Services

One stop shop for all your VA Data needs

- Data Needs Assessment (DNA)
- Feasibility
- Support for prospective study recruitment (Patient Lists)
- Data provisioning
- Cohort Consultation
- Education
What is a Data Needs Assessment?
VINCI Services supports VA research by assisting customers with their Data Needs questions (DNA) relating to:

- CDW
- Millennium (Cerner)
- Many other VA data sources.
Typical DNA questions include:

- Data availability
- Data location
- Data definitions
- Assistance with completing the DART application
- Assistance with completing DART forms including CDW-domain checklist
- Assistance with IRB protocol preparation
VINCI@va.gov
What is a Feasibility?
Feasibility

Purpose:

- Provide aggregate counts for researchers during the preparatory-to-research phase.
- Useful for determining inclusion and exclusion criteria.
  - Impact of each criteria on cohort size and structure
- Power analysis – Do I even have enough patients?
Preparatory-to-research phase

- **No regulatory documents** are required.
- Feasibility results **cannot** be used for any publications.
Feasibility

Typical Inclusion/Exclusion criteria

• Location (nationwide vs some specific location/station)
• Visits and/or Inpatient Stays
• Time frame
• Age/Gender/BMI
• ICD Diagnosis Codes
• Procedures (CPT codes and/or ICD-PC)
• Lab test (topography, units, range)
• Medications
• Distance to Station
Break downs

• Locations
• Time periods
• Gender
• Age groups
• BMI groups
• Race
• Etc.
Feasibility

**Attrition Table**

This is a funnel analysis. Numbers presented in column D are based on the number in the row above. For example, Row 8 will be less than or equal to the number in Row 7.

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## Feasibility

### Attrition Table with Cohort Size Changes

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Feasibility Flowchart

1. Request to VINCI@va.gov
   - VINCI Services
   - Researcher

2. Attrition table
   (time, location, criteria, codes, medications, labs range/units)
   - VINCI Services
   - Researcher

3. Create, run, review code
   Fill out attrition table
   Review code, result
   - VINCI Services
   - Researcher

4. Deliver Result
   Review result/Questions
   - VINCI Services
   - Researcher
What is a Patient List?
Patient Lists

• A list of potential research study participants

• Supplements *traditional patient recruiting* methods by leveraging patient data stored in the VA EMR
IRB approved prospective projects:

• Clinical trials (intervention: drugs, devices, tests, contact, etc.)

• Cohort studies
  • observational study
  • survey study

DART application for the research project is required
Typical Inclusion/Exclusion criteria

- Location (nationwide vs some specific location/station)
- Visits and/or Inpatient Stays
- Time frame
- Age/Gender/BMI
- ICD Diagnosis Codes
- Procedures (CPT codes and/or ICD-PC)
- Lab test (topography, units, range)
- Medications
- Distance to Station
List of Deliverable Variables:
Patient name
DOB
SSN/Last 4
Address
Phone
Date/location of upcoming/most recent appointment
Presence of diagnosis, prescriptions (Y/N)
Lab results (i.e. most recent)

Limitations (will not be delivered)
Problem list
Current medications list
**Attrition table**

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Patients List - Results

- Excel file saved in project research folder in VINCI (DART approval)
- Instructions to access folder in VINCI
- Instructions to download file to local secure server (need DART approval)

Occurrence:
- One time
- On regular base (monthly, quarterly, etc.)
- By Demand
Multicenter projects

Central study coordinator

Request/DART (1 DART per project)

VINCI Services

Create patient list - research folder in VINCI

Central study coordinator

Local secure server for central site - SharePoint

Local sites study coordinators

\[ \text{site}_1, \text{site}_2, \ldots, \text{site}_n \]
Feasibility

Patients List
Research Project Life Cycle

1. Research Idea
2. DNA/ Feasibility
3. Project Protocol or/and Grant application
   - Regulatory process (IRB,R&D)
4. DNA
5. Request to access data (DART)
   - DNA
6. DART approval
   - Project
     - Retrospective
     - Prospective
   - Prospective project (patient list)
What is Data Provisioning?
Data Provisioning:

• A cohort is provided to you
  • Inclusion criteria
  • Exclusion criteria

• The researcher uses SQL to query the data

• Data domain access
  • Patient level data
  • Cohort based
  • Data access to any domain of interest

• Must have DART approval for provisioned data
Data Provisioning:

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Data Provisioning:

- Like a feasibility and patient list: attrition table provided
- No patient list provided
- Purely providing access to data based on a cohort
What is a Cohort Consultation?
Cohort Consultation

Cohort Consultations:

- Like a DNA, but:
  - Meeting (Microsoft Teams) to discuss cohort needs
    - Inclusion criteria
    - Exclusion criteria
    - What data is accessible to the researcher
    - VISTA vs Millennium… maybe both?
    - DART help

- Prior to Data Provisioning or Patient List development

- Usually results in Feasibility
Provisioning and Consultations

Cohort Consult / Feasibility → Data Provisioning / Patient List
VINCI provides Education?
YES WE DO!
VINCI Educational Opportunities:

• **VINCI Office Hour**
  - 3PM Eastern, every Wednesday (except 3rd Wed. of month)
  - Answer questions about VA data (how/where to find)
  - Answer SQL questions about how to query VA data
  - SQL code review
  - Tips and tricks

• **VINCI Training Hour**
  - 3PM Eastern, every 3rd Wednesday of the month
  - Presentations on various VA data and data domains

• SQL Boot Camp – by reservation

• [https://vincicentral.vinci.med.va.gov/SitePages/VINCI_University-VINCI_Training&_Office_Hour.aspx](https://vincicentral.vinci.med.va.gov/SitePages/VINCI_University-VINCI_Training&_Office_Hour.aspx)
email: VINCI@va.gov
   (i.e. Subject Line: DNA Question)

Web page: VINCI Central - Home (va.gov)

Education/Training:
https://vincicentral.vinci.med.va.gov/SitePages/VINCI_University-VINCI_Training_&_Office_Hour.aspx
QUESTIONS?

THANK YOU!