



Database & Methods Cyberseminar Series

Using CDW Microbiology and Pharmacy Data in Outcomes Research

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Database & Methods Cyberseminar Series

- Informational seminars to help VA researchers access and use VA databases.
- Topics
 - VA data sources & data access systems
 - Application of VA data to research and quality improvement questions
 - Limitations of secondary data use
 - Resources to support VA data use



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FY '17 Database & Methods Schedule

First Monday of the month* | 1:00pm-2:00pm ET

Date	Topic
10/3/16	Overview of VA Data & Research Uses
11/7/2016	Requesting Access to VA Data
12/5/2016	Healthcare Utilization with MedSAS & CDW
1/9/2017	VA Medicare Data (VA/CMS)
2/6/2017	Measuring & Assessing Utilization
3/6/2017	Mortality Ascertainment & Cause of Death
4/3/2017	Assessing Race & Ethnicity
6/5/2017	Pharmacy Data
7/10/2017	CAPRI/VistAWeb for EHR Access
8/7/2017	Comorbidity Measures Using VA and CMS Data
8/21/2017	Advanced Topics in Comorbidity Measures
9/11/2017	CDW microbiology, lab, & pharmacy domains

Today's objectives

- To provide an overview of VA CDW Microbiology and Pharmacy domains
- To provide examples of how specific data elements can be used for research questions
- To describe limitations and strengths of these data

Acknowledgments

- Office of Information and Technology
- Veterans Informatics and Computing Infrastructure
- Office of Informatics and Analytics
- Christopher Nielson, Reno VA
- Richard Pham, BISL/CDW
- Linda Poggensee, Hines VA
- Katie Suda, Hines VA
- Margaret Fitzpatrick, Hines VA
- VA HSRD CDA 10-030 funding for Makoto Jones
- VA HSR&D, RR&D Services
- VA QUERI CARRIAGE

Agenda for Presentation

- Overview of Microbiology and Pharmacy domains
- Two examples
- Limitations and strengths
- Other Resources

Poll #1: About you

- What is your role in VA research?
 - Research Investigator/PI
 - Data Manager/Analyst
 - Project Manager/Coordinator/Assistant
 - VA Program Office or Operations Staff
 - Other (please specify)



Poll #2: Your experience with microbiology data

What is your experience with CDW Lab Microbiology data?

- Not worked with it at all
- I have worked with CDW Micro 1.0, but not the latest version (Micro 2.0)
- I have been working with CDW Micro 2.0 but I am a novice
- I am beyond a beginner in using CDW Micro 2.0 data



What's new in Microbiology 2.0?

- Microbiology 1.0 was the first available national data set on select microbiology data (since Summer/Fall 2012)
 - Only included bacteriology
 - Only included organisms with antibiotic susceptibility test results
 - Difficult to determine negative cultures
- Microbiology 2.0 became available in 2015 and includes more microbiology test data:
 - Includes organisms without susceptibilities
 - Virology
 - Mycology
 - Parasitology
 - Does not include mycobacteriology organisms

What does Lab Microbiology 2.0 include?

- Individual-level data from VistA microbiology package on the test and result
- Data from 10/1/1999 - present is available and updated regularly
- All microbiology data
 - Variables of interest include free-text fields (e.g. 'Organism' or 'CollectionSample')
 - Variable interpretation of data model by facility, resulting in differences in where microbiologic data are stored
 - Examples of tests that may be stored in different places (ie. PCR tests, antibody tests)
 - Examples of organisms that may be found elsewhere (ie. *Clostridium difficile*, methicillin-resistant *Staphylococcus aureus* (MRSA) identified by nasal swabs via PCR)

Lab Microbiology 2.0 Sample Schema

DIM TABLES
“Supporting”
tables

Dim.Antibiotic	
AntibioticSID (PK)	int
AntibioticIEN	varchar(50)
Sta3n	smallint
Antibiotic	varchar(50)
AntibioticAbbreviation	varchar(50)
... (more) ...	
NationalVALabCodeSID (FK)	int
NationalVALabCode	varchar(100)
FileManFileName: 62.06 FileManFileName: ANTIMICROBIAL SUSCEPT	

Dim.Organism	
OrganismSID (PK)	int
OrganismIEN	varchar(50)
Sta3n	smallint
Organism	varchar(100)
OrganismCategory	varchar(50)
SNOMEDCode	varchar(50)
GramStain	varchar(50)
... (more) ...	
FileManFileName: 61.2 FileManFileName: ETIOLOGY FIELD	

Micro.Microbiology	
MicrobiologySID (PK)	bigint)
Sta3n	smallint
LongAccessionNumberUI	varchar(50)
MicrobiologyIEN	varchar(50)
... (more) ...	
PatientSID (FK)	int
StaffSID	varchar(50)
SpecimenTakenDateTime	datetime2(0)
TopographySID (FK)	int
CollectionSampleSID (FK)	int
... (more) ...	
FileManFileName: 63.05 FileManFileName: MICROBIOLOGY	

FACT TABLES
“Parent” tables

Micro.AntibioticSensitivity	
AntibioticSensitivitySID (PK)	bigint
MicrobiologySID (FK)	bigint
Sta3n	smallint
PatientSID (FK)	int
... (more) ...	
OrderingInstitutionSID (FK)	int
CollectingInstitutionSID (FK)	int
SpecimenTakenDateTime	datetime2(0)
OrganismSID (FK)	int
OrganismQuantity	varchar(50)
AntibioticSID (FK)	int
AntibioticSensitivityValue	varchar(50)
AntibioticSensitivityInterpretation	varchar(50)
Suppression	varchar(50)
FileManFileName: 63.3 FileManFileName: ORGANISM	

Micro.Virology	
VirologySID (PK)	bigint
LabSubjectSID (FK)	int
MicrobiologySID (FK)	bigint
MicrobiologyIEN	varchar(50)
VirologyIEN	varchar(50)
Sta3n	smallint
PatientSID (FK)	int
... (more) ...	
SpecimenTakenDateTime	datetime2(0)
IsolateID	varchar(50)
VirusOrganismSID (FK)	int
FileManFileName: 63.43 FileManFileName: VIRUS	

Dotted lines
show linking

There are several more fact
tables, including
Micro.Mycology,
Micro.Parasitology, etc.
All of these tables link to
Micro.Microbiology using
MicrobiologySID

https://vaww.cdw.va.gov/metadata/Reports/ERDiagramsOfViews/Lab%20Microbiology_3342.jpg

Micro.Microbiology

- Contains data on all the specimens collected that are located in the Microbiology subsection of VistA
 - Previously, only bacteriology, but now includes virology, parasitology, etc.
- Specimen date and time information (e.g. collected, received, reported), accession, station
- Patient and staff unique identifiers (e.g. 'PatientSID')
- Additional variables include foreign keys (FK) that link to associated microbiology tables or dim tables
- 'MicrobiologySID' is the primary key (PK)
 - A unique count of this ID gives you the number of microbiology cultures for the time frame and cohort

Dimension Tables

- There are many dimension or dim tables linked to Lab Microbiology
 - **Antibiotic, Organism, Topography, CollectionSample**, etc.
- Can be viewed without a cohort, because they do not contain any sensitive information (e.g. 'PatientSID')
 - Can be viewed in VINCI in the folder named CDWWWork
- Schema for dimension tables is Dim, e.g. Dim.Organism

Examples of data use

- Surveillance of select bacterial infections/colonization or drug resistance
 - Suda et al. Bacterial susceptibility patterns in patients with spinal cord injury and disorder (SCI/D): An opportunity for customized stewardship tools. *Spinal Cord*, 2016;54:1001-1009
 - Fitzpatrick M et al. Changes in bacterial epidemiology and antibiotic resistance among Veterans with spinal cord injury/disorder over the past 9 years. *J Spinal Cord Med*, 2017;15:1-9
- Risk factors, processes of care, treatment, and outcomes for select bacterial infections/colonization or drug resistance
 - Goto et al. Association of evidence-based care processes with mortality in *Staphylococcus aureus* Bacteremia at Veterans Health Administration Hospitals, 2003-2014. *JAMA Internal Med*, 2017, doi:10.1001/jamainternmed.2017.3958
 - Nelson et al. Attributable mortality of healthcare-associated infections due to multidrug-resistant gram-negative bacteria and methicillin-resistant *Staphylococcus aureus*. *Infection Control Hosp Epi*, 2017;38:848-856

Poll #3: Your pharmacy data experience

- What is your experience with CDW Pharmacy Domains data?
 - Not worked with it at all
 - I have worked with CDW pharmacy domains but I am a novice
 - I am beyond a beginner in using CDW pharmacy domains



Pharmacy domains

- Production – Updated Nightly
 - Pharmacy Bar Code Medication Management (BCMA) – inpatient
 - Pharmacy Outpatient
 - Pharmacy Patient
 - Purchase Care (formerly fee)

Pharmacy domains

- Raw – Updated every 3 months
 - RxUD (Unit Dose)
 - Intravenous Meds (IV)
 - May help with medications that you might anticipate would be in BCMA but are actually not



Example Variables of Interest

- LocalDrugSID
- DrugNameWithDose
- DaysSupply
- DoseOrdered (dosage amount, ie. 250)
- Unit (ie. mg)

Agenda for Presentation

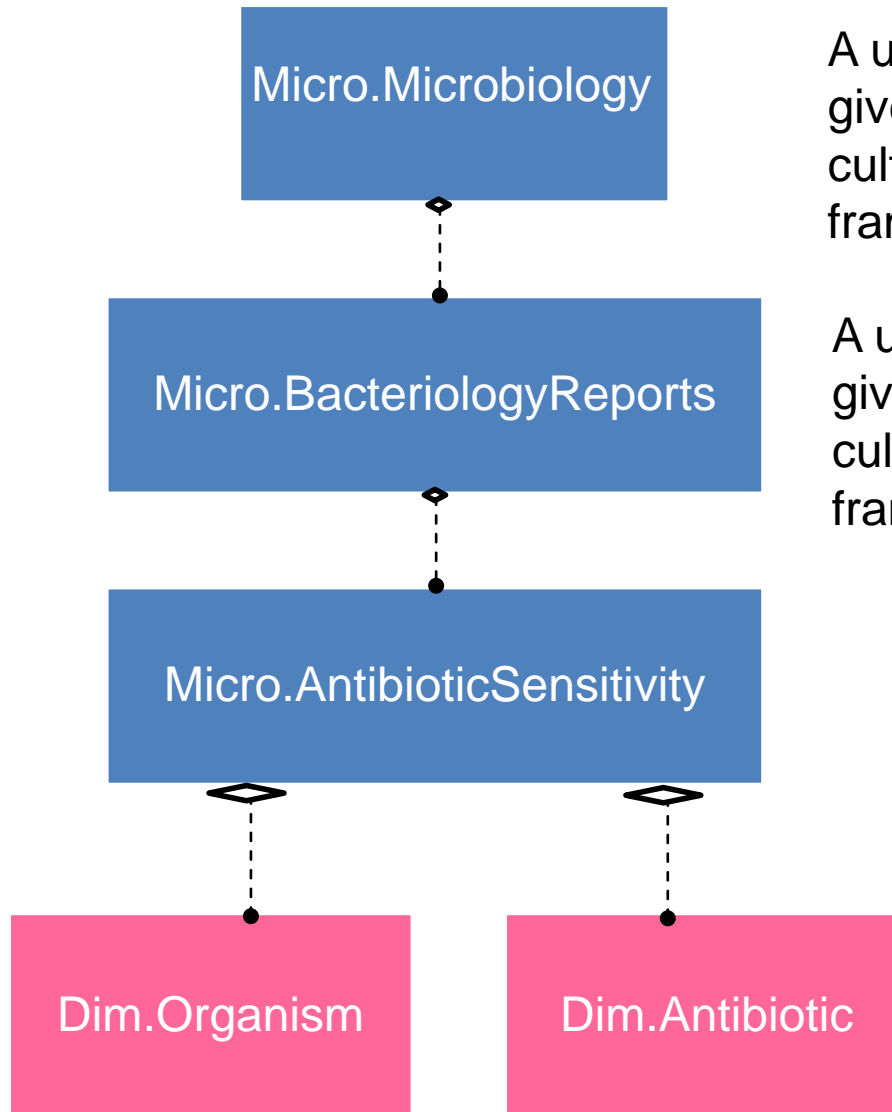
- Overview of Microbiology and Pharmacy domains
- Two examples
- Limitations and strengths
- Other Resources

Examples for data use

- **Example 1:** Assessing antibiotic resistance in microorganisms
- **Example 2 :** Antibiotic treatment/exposure

Example 1: Assessing antibiotic resistance in microorganisms

Overview of Microbiology hierarchy



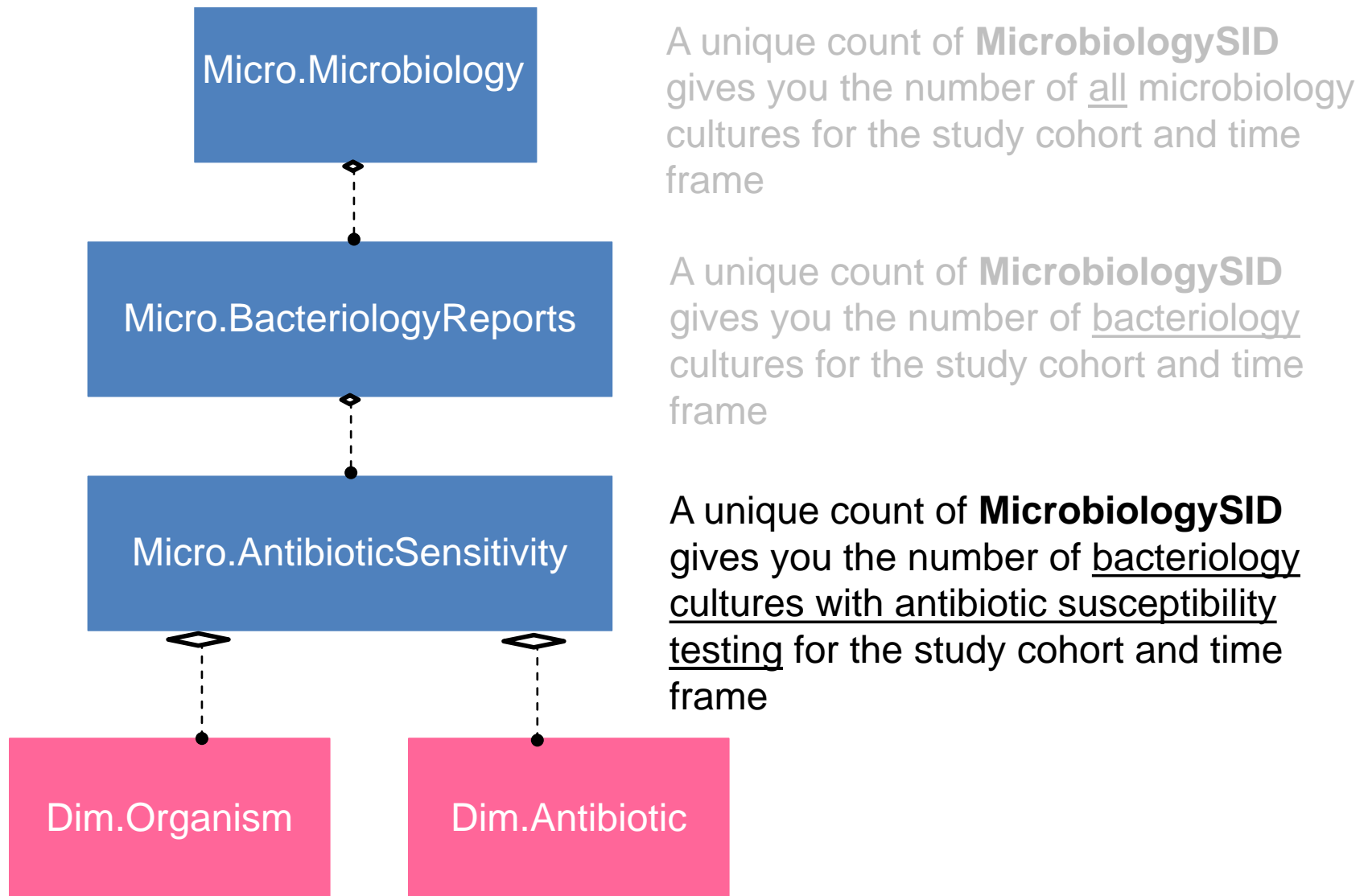
A unique count of **MicrobiologySID** gives you the number of all microbiology cultures for the study cohort and time frame

A unique count of **MicrobiologySID** gives you the number of bacteriology cultures for the study cohort and time frame

Micro.AntibioticSensitivity

- Includes a subset of specimens from Micro.Bacteriologyreports
 - Only positive cultures that had antibiotic susceptibility testing performed
 - Includes variables that identify the antibiotic tested against and the antibiotic sensitivity results and interpretation
 - Examples: S-susceptible, I-Intermediate, R-Resistant

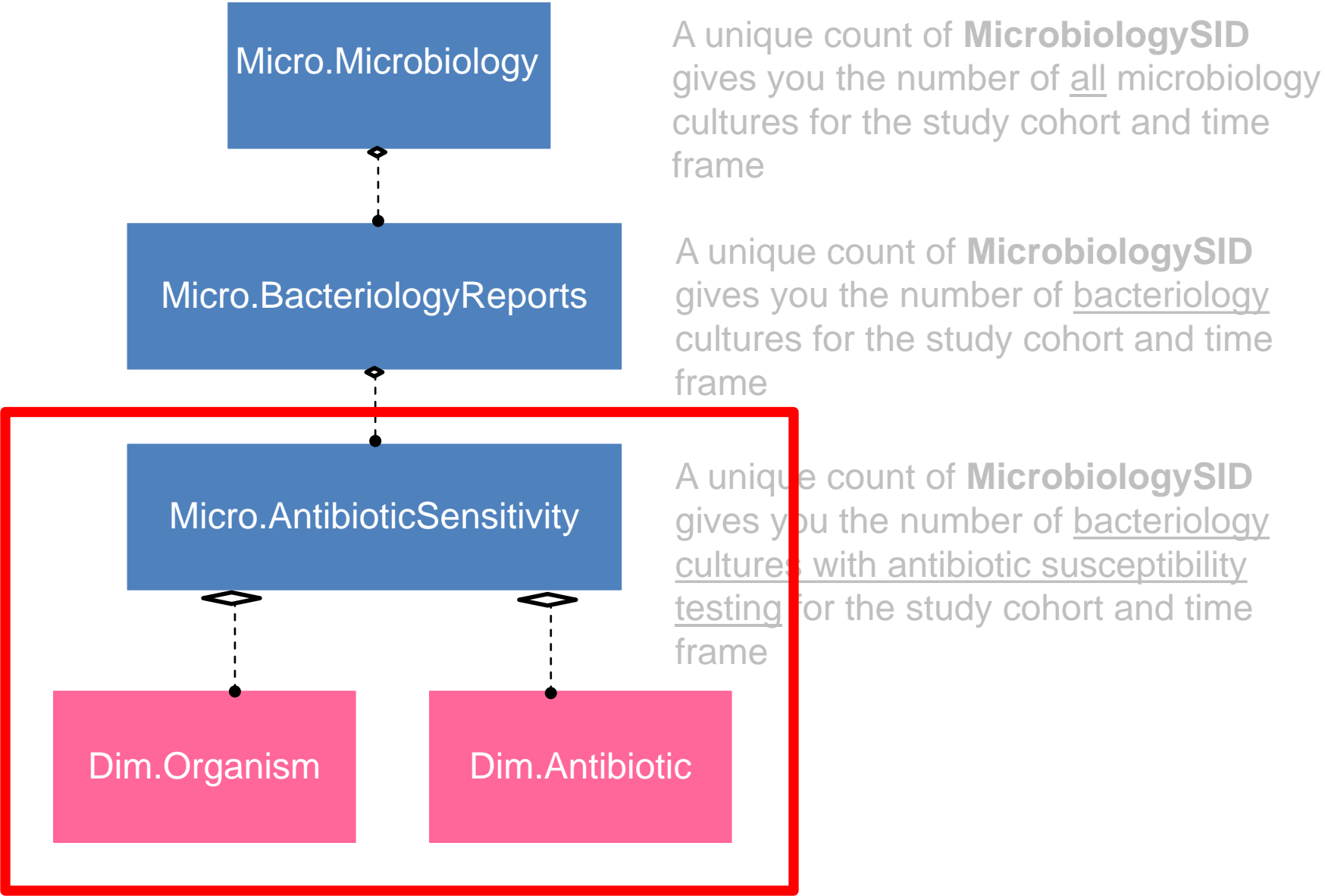
Overview of Microbiology hierarchy



Dim.Organism and Dim.Antibiotic

- Dim.Organism - Table name
 - Organism – Name of variable in Dim.Organism table
 - Includes the actual names of the organisms which grew in culture
- Dim.Antibiotic – Table name
 - Antibiotic – Name of variable in Dim.Antibiotic table
 - Includes the actual names of the antibiotics tested against the organisms which grew in culture
- Use OrganismSID and AntibioticSID from these dimension tables to link to Micro.Antibioticsensitivity

Overview of Microbiology hierarchy



Overview of Process for Identifying an Antibiotic Resistant Organism

- Identify the organism, e.g. *Klebsiella*
- Identify the antibiotic(s) of interest, e.g. ertapenem, imipenem
- Merge with Micro.AntibioticSensitivity fact table to obtain cohort and specimen specific information and the variable field 'AntibioticSensitivityInterpretation'
- Standardize the antibiotic sensitivity results in 'AntibioticSensitivityInterpretation' as S=Susceptible, I=Intermediate Susceptibility or R=Resistant
- Describe your organisms by percentage resistant

*Disclaimer: This is one of several approaches.

Step 1: Identify a full list of the 'Organism' variable

Screen shot of the results of a query from Dim.Organism by the 'Organism' variable

SQLQuery1.sql

```

/***** Look only at unique or distinct Organism Entries *****/
SELECT DISTINCT([Organism])
FROM [CDWWork].[Dim].[Organism]
ORDER BY [Organism]
  
```

100 %

Results Messages

	Organism
1	NULL
2	
3	SP.
4	*Missing*
5	*Unknown at this time*
6	0004 ETIOLOGIC AGENT NOT IDENTIFIED
7	0157 E.COLI 0157 (CRITICAL RESULT)
8	1(1-NAPHTHYL)-2-THIOUREA
9	1+ RBC
10	1+ WBC
11	1, 1, 1, -TRICHLORO-2, 2-BIS (P-CHLOROPHENYL) ETHANE
12	1, 1, 1-TRICHLOROETHANE
13	1, 1-DICHLORO-2-(O-CHLOROPHENYL-2-(P-CHLOROPHENY...
14	1, 1-DICHLOROETHYLENE
15	1, 3-DICHLORO-2-PROPANOL
16	1,000 CFU/ML
17	1-(1-(2-THIENYL) CYCLOHEXYL) PIPERIDINE
18	1-1-BIS-(P-CHLOROPHENYL)-2-NITROBUTANE
19	1-1-BIS-(P-CHLOROPHENYL)-2-NITROPROPANE
20	1-1-DICHLORO-1-NITROETHANE

Step 2: Review and categorize organisms

- Review of the 'Organism' list to categorize into the causative organism of interest
 - ie. *Klebsiella oxytoca*, *Acinetobacter baumannii*
- Recent review of Dim.Organism found 259 unique versions of *Klebsiella*

From Dim.Organism	Study categorization
Organism	Organism_category
ESBL K. OXYTOCA	KLEBSIELLA_OXYTOCA
KLEB OXYTOCA STR 1	KLEBSIELLA_OXYTOCA
KLEB OXYTOCA str 1	KLEBSIELLA_OXYTOCA
KLEB OXYTOCA STR 2	KLEBSIELLA_OXYTOCA
KLEBSIELLA OXYTOCA (ESBL POSITIVE)	KLEBSIELLA_OXYTOCA
KLEBSIELLA OXYTOCA (ESBL)	KLEBSIELLA_OXYTOCA
KLEBSIELLA OXYTOCA *CRE*	KLEBSIELLA_OXYTOCA
KLEBSIELLA OXYTOCA *ESBL*	KLEBSIELLA_OXYTOCA
KLEBSIELLA OXYTOCA *ESBL/CRE*	KLEBSIELLA_OXYTOCA
KLEBSIELLA PNEUMONIA - CRE	KLEBSIELLA_PNEUMONIAE
KLEBSIELLA PNEUMONIA (ESBL)	KLEBSIELLA_PNEUMONIAE
KLEBSIELLA PNEUMONIA (KPC)	KLEBSIELLA_PNEUMONIAE
KLEBSIELLA PNEUMONIA *ESBL*	KLEBSIELLA_PNEUMONIAE
KLEBSIELLA PNEUMONIA ESBL POS	KLEBSIELLA_PNEUMONIAE

Step 3: Identifying a full list of antibiotics tested against organisms

Screen shot of results for Dim.Antibiotic, where the field of interest is 'Antibiotic'

SQLQuery1.sql

```

/***** Look only at unique or distinct Antibiotic Entries *****/
SELECT DISTINCT([Antibiotic])
FROM [CDWork].[Dim].[Antibiotic]
ORDER BY [Antibiotic]
  
```

100 %

Results Messages

	Antibiotic
1	*Missing*
2	*Unknown at this time*
3	ONAFICILLIN
4	1...
5	124
6	5-FLOUROCYTOSINE
7	5-FLUCYTOSINE
8	5-FLUOROCYSTOSINE
9	5-FLUOROCYTOSINE
10	A/S
11	ABACAVIR (DC'D)
12	ADEFOVIR
13	AM/CL-AUG
14	AMC
15	AMDINOCILLIN
16	AMIKAC 4.0 MCG/ML:
17	AMIKAC 6.0
18	AMIKACIN
19	AMIKACIN (AFB)
20	AMIKACIN 6.0

Step 4: Review and categorize antibiotics tested

- Review of the 'Antibiotic' list to categorize into antibiotics of interest
 - ie. Identify all carbapenems
- Variability by site, year, misspellings, etc.

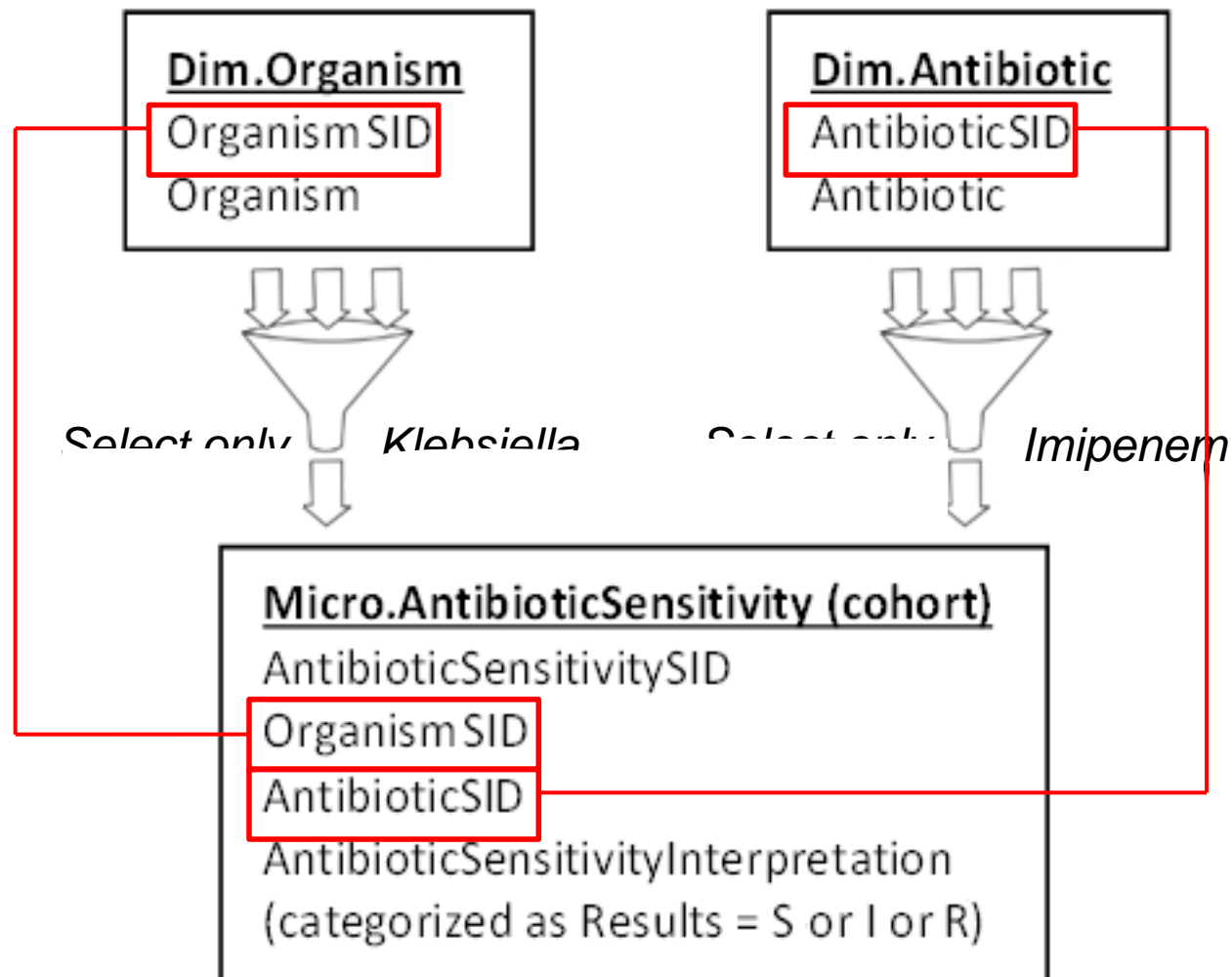
From Dim.Antibiotic

Study categorization

Antibiotic	Abx
ERTAPENEM	ERTA
ERTAPENEM ET	ERTA
ERTAPENEM KB	ERTA
ERTAPENEM MIC	ERTA
ERTAPENEM.	ERTA
IMIPENEM	IMIP
IMIPENEM 4.0	IMIP
IMIPENEM AFB	IMIP
IMIPENEM KB	IMIP
IMIPENEM MIC	IMIP
IMIPENEM.	IMIP
IMIPENEM/CILASTATIN	IMIP
IMIPENUM	IMIP
IMP	IMIP
MERO	MERO
MEROP	MERO
MEROPENEM	MERO
DORIPENEM	DORI
DORIPENEM ET	DORI
DORIPENEM KB	DORI

Step 5: Linking of 3 tables

- Dim.Organism (limited to ORGANISMS OF INTEREST)
- Dim.Antibiotic (limited to ANTIBIOTICS OF INTEREST)
- Micro.AntibioticSensitivity (categorized as S, I, or R)



Step 6: Identify antibiotic susceptibilities and categorize

- 'AntibioticSensitivityInterpretation' is also a text-based field, so look at the full listing in order to categorize results that are
 - S=Susceptible
 - I=Intermediate Susceptibility
 - R=Resistant

SQLQuery1.sql

```

/***** Look only at unique or distinct Antibiotic Sensitivity Entries
SELECT DISTINCT([AntibioticSensitivityInterpretation])
FROM [ORD_ProjectFolder].[Src].[Micro_AntibioticSensitivity]
ORDER BY [AntibioticSensitivityInterpretation]

```

100 %

Results	AntibioticSensitivityInterpretation
1	NULL
2	
3	R
4	S
5	-
6	I
7	R
8	S
9	&
10	&CLIND
11	&VANCO
12	'
13	''
14	*
15	**
16	+
17	,=1
18	-
19	.
20	..
21	.032
22	.047
23	.06 S
24	.094
25	.12
26	.125

Additional results

365	See Above
366	SEN
367	SEN-SYNRGY
368	SENS
369	SENSITIVE
370	SS
371	SSUPPRESSED RESULTS
372	STAPH
373	SUN-S
374	SUPPRESSED RESULTS
375	SUSCEP
376	SW
377	SYHN-S
378	SYM-R
379	SYM-S
380	Syn
381	SYN-

Review of Process for Identifying an Antibiotic Resistant Organism

- Identify the organism and standardize, e.g. *Klebsiella*
- Identify the antibiotic(s) of interest and standardize, e.g. ertapenem, imipenem
- Merge with Micro.AntibioticSensitivity fact table to obtain cohort and specimen specific information and the variable field 'AntibioticSensitivityInterpretation'
- Standardize the antibiotic sensitivity results in 'AntibioticSensitivityInterpretation' as S=Susceptible, I=Intermediate Susceptibility or R=Resistant
- Describe your organisms by percentage resistant

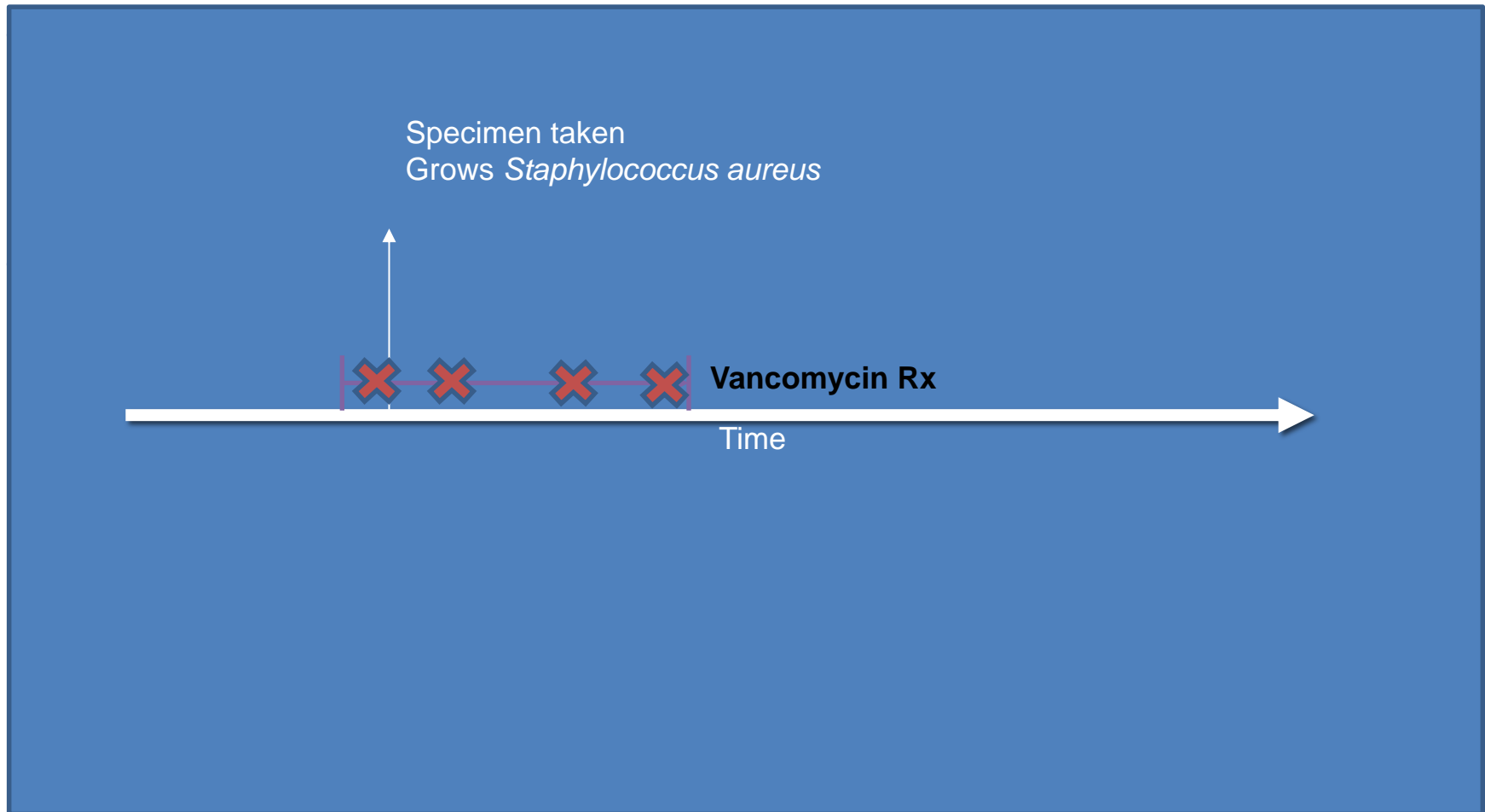
*Disclaimer: This is one of several approaches.

Considerations for Example 1

- These fields are not standardized, so requires data cleaning to ensure accurate identification
- Look at a **full listing** of the 'Organism', 'Antibiotic', 'AntibioticSensitivityInterpretation' and 'AntibioticSensitivityValue' fields
- Consider all possible variations including alternate spellings, misspellings, phrasing, and abbreviations
- Quantitative information like MICs may be in the interpretation field and may need further categorization
- Use of the 'AntibioticSensitivityValue' field with the 'AntibioticSensitivityInterpretation' field in combination may be warranted

Example 2: Antibiotic treatment/exposure

Example 2: Joining Organisms and Treatment



- Live demonstration

Agenda for Presentation

- Overview of Microbiology and Pharmacy domains
- Two examples
- Limitations and strengths
- Other Resources

Limitations to Microbiology and Pharmacy Data Use

- Remember that workup and data entry may not be systematic
- Be aware of selective reporting
- Text-based fields: Not standardized
- If interested in negative cultures, must make assumptions that any specimen NOT in all other fact tables but they have Micro.Microbiology.
 - Be aware of organisms or resistance stored in other places (ie. Lab Chem)
 - Use all the fact tables to find organisms because eg. Yeast won't just be in mycology.



Limitations to Microbiology and Pharmacy Data Use

- Outside the VA prescriptions and microbiology can't be captured
- Pharmacy data: BCMA does not include outpatient, ER, or hemodialysis, surgery/OR
 - Can look at orders or IV to see if they got it; but it's a search
- ER has stock of antibiotics that may not be logged, except in notes: natural language processing needed

Limitations to Microbiology and Pharmacy Data Use

- Dose: not standardized. Difficult to use.
- BCMA limited – route of administration can be different then what is in the patient record from pharmacy
- Prolonged administration or extended infusions can be documented at start or finish.
- Data quality has not been assessed for most

Microbiology and Pharmacy Domain Strengths

- Includes culture data on bacteria, viruses, fungi, parasites
- Millions of Microbiology and Pharmacy records from an integrated healthcare system
- Ability to link with other CDW data sources (ie. encounters)
- Opportunity to answer SOME clinical, epidemiologic, and health services and outcomes research questions on infectious disease that otherwise would not be possible with one or two sites
- Pharmacy: outpatient and inpatient BCMA is good
 - Since ~2005; quality of BCMA implementation has been monitored and is high.

Sample of currently VA funded studies using these data

- CARRIAGE QUERI (Rubin/Evans/Perencevich)
 - CRE (C. Evans)
 - SSTOP (M. Rubin/M. Goetz)
- Actionable Knowledge to Guide Antimicrobial Stewardship (M. Jones)
- Understanding and Improving Decision-making in Pneumonia with Informatics (B. Jones)
- Comparative Effectiveness of Strategies to Control S. Aureus Infections (M. Schweizer)
- PSCI on Measurement to Advance Patient Safety (Rosen, Gupta, et al)

Poll #4: Your plans

- What are your future plans for using CDW microbiology and pharmacy data? (Select all that apply)
 - I do not plan to use these data in the future
 - Assess risk factors for infection or antibiotic resistance/treatment
 - Evaluate outcomes (morbidity, mortality, or costs) for infection
 - Conduct surveillance, infection control, or antimicrobial stewardship activities
 - Evaluate impact of national initiatives on infections, antibiotic resistance, or stewardship
 - Other (please specify)



Agenda for Presentation

- Overview of Microbiology and Pharmacy domains
- Two examples
- Limitations and strengths
- Other Resources

VHA Data Portal

[Data Sources Overview](#)

[ADUSH Enrollment File](#)

[AIRC Mainframe](#)

[BIRLS Death File](#)

[CDW](#)

[HERC Cost Data](#)

[Homeless Registry](#)

[MCA \(formerly DSS\) NDEs](#)

[MCA \(formerly DSS\) Web Reports](#)

[Medical SAS Inpatient & Outpatient Data Sets](#)

[NPCD](#)

[OEF/OIF/OND Roster](#)

[PACT Implementation Index \(Pi2\)](#)

[PSSG Geocoded Enrollee Files](#)

[PTF](#)

[VA/CMS Data](#)

[VETSNET](#)

[Vital Status File](#)

[VSSC Web Reports](#)

link
vaww

Department of Veterans Affairs
VHA Data Portal


[Data Sources](#) [Data Access](#) [Tools & Applications](#) [Resources](#) [Training](#) [Policy & Admin](#) [Support](#)


Welcome to the VHA Data Portal


The VHA Data Portal promotes a knowledge-sharing culture that supports the needs of VHA data users. The Portal integrates information from multiple sources into a single location to promote a comprehensive knowledge base and to facilitate a positive end-user experience.


The one-stop-shop for data users' needs.


Our home page design has recently changed to help get you the information you need. Each one of the badges below links to access information and other relevant resources for a particular data use need, or use the new top navigation menu to locate resources by category. Tell us what you think.

 **New Data User**

 **Research**

 **Operations & Quality Improvement**

 **Access Policy & Administrative Tools**

 **Quick Links Library**

Upcoming Events

VIReC Cyberseminars

Dec 20: Partnering with Health Systems Leadership to Develop a Randomized, Controlled Implementation Trial
(Bauer, M | Weaver, K)

Jan 9: Measuring Veterans' Medicare Health Services Use
(de Groot, K)

Jan 24: ProVE (Personalizing Options through Veteran Engagement) QUERI
(Damschroder, L | Kelley, C | Davis, J)

Feb 6: Measuring & Assessing Outpatient Care
(Hynes, D)

VINCI Cyberseminar

Dec. 8: Getting Started with VA OMOP Data (DuVall, S)

VINCI Happy Hour

3rd Wednesday Every Month at 3 PM ET
VINCI in its continuing efforts to assist VHA data users will be holding its VINCI Happy Hour open question and answer forum every 3rd Wednesday of the month from 3:00PM to 4:00PM ET to field questions from our customers on a range of topics. Click here to join the Lync meeting and call 855-767-1051 code 22265884.

News

Data Management and Access Plan (DMAP)

Effective January 1, 2018, all applications for VA-ORD funding are required to include a Data Management and Access Plan (DMAP) in the proposal. Applicants are encouraged to work with the local VA research office in order to describe the DMAP in an application, and for implementation of the plan. The DMAP will be evaluated as an unscored element in the scientific peer review, and any issues will be addressed administratively.

VistAWeb Access for Medical Advisory Opinions

As of July 1, 2016, access to VistAWeb for Medical Advisory Opinions (MAO) reviews do not expire after 60 days. Access will also be granted nationally to all VistA systems.

VIREC INTRANET

Search All VA Web Pages [Open Advanced Search](#)

VA INFORMATION RESOURCE CENTER (VIREC)

VIREC Home
VA/CMS Home
About Us
New Users of VA Data
FAQs
Acronyms
HelpDesk
Report Broken Link

VHA Corporate Data Warehouse (CDW)

Overview

The Veterans Health Administration (VHA) Corporate Data Warehouse (CDW) is a national repository of data from VistA and several other VHA clinical and administrative systems. The CDW is physically located at the Austin Information Technology Center.

The CDW is a relational database organized into a collection of data domains. Domains represent logically or conceptually related sets of data tables. Domain themes generally indicate the application in the VistA electronic health record system from which most of the data elements in the domain come (e.g., Vital Signs or Mental Health Assessment).

Available Data

Data are available from October 1999 - present. Availability varies by domain. CDW's SharePoint site provides an up-to-date list of available domains with some structural documentation in the Metadata Reports section.

CDW

- Overview
- Data Transition to CDW
- Documentation

ICD-10 Implementation

Visit the "CDW ICD-10 Implementation" page to learn more.

General Resources

<http://vaww.virec.research.va.gov/CDW/Overview.htm>

Basic information and resources for researchers interested in CDW data, including:

CDW Summary Documentation

<http://vaww.virec.research.va.gov/CDW/Documentation.htm>

- [Summary Documentation](#) on the CDW datasets includes factbooks, domain layouts, data contents, sample records, and frequencies.
- Medical SAS Outpatient variables have been mapped to CDW data fields. Visit the "[NPCD CDW Transition](#)" page on CDW's SharePoint site to access the map and for information on differences in variable formatting, data transformations and calculated variables only in the Medical SAS files.
- VINCI's Intranet site, [VINCI Central](#), provides in-depth information on VINCI including data sources, support, training, and guides for using VINCI.
- The [CDW SharePoint site](#) has an announcements section that provides up-to-date information on topics such as newly released data, missing data and training available.

VIReC Options for Specific Questions

HSRData Listserv

- Community knowledge sharing
- ~1,200 VA data users
- Researchers, operations, data stewards, managers
- Subscribe by visiting <http://vaww.virec.research.va.gov/Support/HSRData-L.htm> (VA Intranet)



HelpDesk

- Individualized support



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Database & Methods Cyberseminar Series

Next sessions

Date	Topic
10/2/17	Overview of VA Data & Research Uses Maria Souden, MSI, PhD Associate Director VA Information Resource Center
11/6/2017	Requesting Access to VA Data Linda Kok, MA Technical & Privacy Liaison VA Information Resource Center