Session 3:

GECDAC* CURATED & VALUE-ADDED DATA INFRASTRUCTURE

March 15\textsuperscript{th}, 2022

Orna Intrator, PhD; Winifred Scott, MPH; Bruce Kinosian, MD

*Geriatrics & Extended Care Data Analysis Center
Using Data & Information Systems in Partnered Research Cyberseminar Series
Third Tuesday of the month | 12:00 - 1:00 PM ET

Presentations from the field focusing on VA data use in quality improvement and operations-research partnerships.

Sessions cover...

- Use of VA data and information systems in QUERI Projects and Partnered Evaluation Initiatives
- Operational data resources and QI-related data
- Challenges in using and managing multiple data sources
- VA resources to support data use
- Experiences working within operations/research partnerships

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Access code: 199 009 5117

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Poll #1:

What is your primary role in projects using VA data?

- Investigator, PI, Co-I
- Statistician, methodologist, biostatistician
- Data manager, analyst, or programmer
- Project coordinator
- Other – please describe via the chat function
Poll #2:

*How many years of experience working with VA data?*

- None – I’m brand new to this!
- One year or less
- More than 1, less than 3 years
- At least 3, less than 7 years
- At least 7, less than 10 years
- 10 years or more
Session 3:

**GECDAC* CURATED & VALUE-ADDED DATA INFRASTRUCTURE**

March 15th, 2022

Orna Intrator, PhD; Winifred Scott, MPH; Bruce Kinosian, MD
*Geriatrics & Extended Care Data Analysis Center (GECDAC)
Purpose of This Presentation

- GECDAC has curated data and assembled and produced important measures related to health care provision to older population and population of Veterans needing long-term services & support.

- This presentation aims to share what we have learned during 10 years of operation.

- This information can facilitate clinicians, scientists and staff that need information on health care and services for aging Veterans.
Outline

- What is GECDAC (Geriatrics & Extended Care Data Analysis Center)?
- GEC continuum of vulnerability
- Data acquired by GECDAC from VA and Centers for Medicare & Medicaid Services (CMS)
- Pulling together patient histories with the Residential History File (RHF)
- Risk and frailty measures
- The GECDAC Core Files (GCF)
- Sharing Data
- Summary
- Bonus Slides
  - List of Acronyms
  - The GEC Explorer data visualization tool
GECDAC SERVICES

- Data for Leadership and VA Field Offices by using data from CDW, GEC, CMS, and other sources
- Extracting databases from Health Factors
- Sharing value added data
- Program Evaluation
- Measure & Risk Score Development/Validation/ Application/ Dissemination

Some recognized data products:
- GEC Cohort Report, GECDAC Core Files (GCF), GEC Explorer
- Residential History File (RHF)
- JEN Frailty Index (JFI), HNHR for HBPC expansion
GEC Continuum of Vulnerability

Independence

- Ambulatory Care
  - Geriatric Evaluation & Management
  - Geriatric Primary Care (Geri-PACT)
  - Outpatient Palliative Care
  - Geriatric Specialty Clinics

Dependence

- Inpatient Care
  - Geriatric Evaluation Units
  - Palliative Care Units
  - Geriatric Consult Teams
  - Palliative Care Consult Teams

- Home & Community Based Services
  - Adult Day Health Care
  - Home Based Primary Care
  - Homemaker and Home Health Aide
  - Community Residential Care
  - Medical Foster Home
  - Respite Care
  - Skilled Home and Palliative Care
  - Veteran Directed Care
  - Hospital In Home

End of Life

- Facility Based Care
  - VA Community Living Centers (CLC)
  - (Contract) Community Nursing Homes (CNH)
  - State Veterans Homes’ Nursing Homes (SVH)

- End-of-Life Care
  - Community Home Hospice
  - VA Inpatient Hospice
  - Hospice Veterans Partnership
<table>
<thead>
<tr>
<th>Sources of GEC-Related Data Acquired by GECDAC</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional</strong></td>
</tr>
<tr>
<td>VA-Provided</td>
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<tr>
<td>Community Living Center (CLC)</td>
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<tr>
<td>Respite</td>
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<tr>
<td>Inpatient Hospice</td>
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<tr>
<td>Hospice in CLC</td>
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<tr>
<td>GEM Inpatient</td>
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<tr>
<td>Purchased (VA-Paid)</td>
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<tr>
<td>Community Nursing Home (CNH)</td>
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<tr>
<td>State Veterans Home (SVH)</td>
</tr>
<tr>
<td>Respite</td>
</tr>
<tr>
<td>Hospice in CNH</td>
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<tr>
<td>CMS (Medicare/Medicaid)</td>
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<tr>
<td>Skilled Nursing Facility</td>
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<td>Nursing Home Hospice</td>
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<td><strong>Non-Institutional</strong></td>
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<td>Home-Based Primary Care (HBPC)</td>
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<td>Medical Foster Home</td>
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<td>GeriPACT</td>
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<tr>
<td>Other Geriatric Clinic</td>
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<tr>
<td>Comprehensive Geriatric Evaluation</td>
</tr>
<tr>
<td>Dementia Clinic</td>
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<td>Hospice Referrals/Palliative Care</td>
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<td>Adult Day Health Care</td>
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<tr>
<td>Hospital at Home</td>
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<tr>
<td>Etc.</td>
</tr>
<tr>
<td>Hospice</td>
</tr>
<tr>
<td>Homemaker/Home Health Aide</td>
</tr>
<tr>
<td>Purchased Skilled Home Care</td>
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<tr>
<td>Respite</td>
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<tr>
<td>Adult Day Health Care</td>
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<tr>
<td>Veteran-Directed Care</td>
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<td>Program of All-Inclusive Care for the Elderly</td>
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<tr>
<td>(PACE)</td>
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<tr>
<td>Etc.</td>
</tr>
<tr>
<td>Hospice</td>
</tr>
<tr>
<td>Home Health Services</td>
</tr>
<tr>
<td>Program of All-Inclusive Care for the Elderly</td>
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<tr>
<td>(PACE)</td>
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GEC Utilization: VA Data

VA Data

CDW/ARC

CDW/ECAMS

CDW FEE

CDW Outpatient, Inpatient

MCAO DSS

AAC

Enrollment

Utilization

GEC Assessments

HBPC Masterfile

MDS CLC

MDS SVH

PIT/ECAMS

FEE

MDS

CLC

SVH

HBPC

Enrollment

Utilization

GEC Assessments

HBPC Masterfile

MDS CLC

MDS SVH

PIT/ECAMS

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MDS CLC

MDS SVH

PIT/ECAMS

FEE

MDS

CLC

SVH

HBPC

Enrollment

Utilization

GEC Assessments

HBPC Masterfile

MDS CLC

MDS SVH
Minimum Data Set (MDS)

- CMS requirement to assess all residents in NH facilities certified to participate in Medicare or Medicaid (regardless of payer)
- Separate datasets available for CMS (including Contract Nursing Homes (CNH)), Community Living Centers (CLC), State Veteran Home nursing homes (SVH)
  - Veterans may receive NH care through VA CLCs or SVHs, or from a CNH, which may or may not be paid for by VA
- Assessments conducted at admission, discharge, quarterly, and change in status
- Conducted by staff, typically an RN or someone familiar with the resident
- Assess: cognition, ADL, mood, behavior, treatments, diagnoses...
Home-Based Primary Care (HBPC) Master File

- Master File records dates of HBPC enrollment/discharge. Data entered by HBPC field staff
  - Records applications rejected/withdrawn (reason provided).

- Includes Veterans receiving care in Medical Foster Home

- More accurate than CDW encounter data:
  - In FY2019: 55,735 veterans were enrolled in HBPC and had 1+ HBPC visits.
    - 1,206 were enrolled but had no visits and 18,354 had visits but were not enrolled.

- Additional variables:
  - Demographics – age, race, marital status, usual living arrangement
  - Functional Status – vision, hearing, mobility, communication, bowel/bladder continence, cognition (disorientation/memory impairment)
  - Activities of Daily Life – bathing, dressing, using toilet, transferring, eating, walking
  - Caregiver limitations, behavior problems, mood, adaptive tasks
The RHF is a Puzzle Algorithm: Combines Data
GEC Utilization: VA and CMS Data

**VA Data**
- CDW/ARC
- PIT/ECAMS
- CDW FEE
- CDW Outpatient, Inpatient
- MCAO DSS
- AAC
- HBPC Masterfile
- MDS CLC
- MDS SVH
- Enrollment

**CMS Data**
- Medicare
- Medicaid
- Enrollment
- Utilization
- MDS CMS
## Identifying Hospice Use By Veterans

<table>
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<tr>
<th>Data Sources</th>
<th>How to Identify</th>
<th>#Veterans FY2019</th>
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<tr>
<td>VA Inpatient Hospice</td>
<td>CDW Inpatient</td>
<td>6,440</td>
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<td></td>
<td>Medical Service, Ward Specialty, Bedsection</td>
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<td>Hospice in CLC</td>
<td>CDW Inpatient</td>
<td>15,978</td>
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<td></td>
<td>Treating Specialty</td>
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<td>Purchased Hospice</td>
<td>CDW FEE, PIT, ECAMS</td>
<td>8,302</td>
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<tr>
<td></td>
<td>Various</td>
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<tr>
<td>Medicare Hospice in</td>
<td>Medicare Claims</td>
<td>205,286</td>
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<td>Community</td>
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<td></td>
<td>Medicare Hospice claims</td>
<td></td>
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<tr>
<td>Medicare Hospice in</td>
<td>Medicare Claims, MDS</td>
<td>52,384</td>
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<td>Nursing Home</td>
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<tr>
<td></td>
<td>Medicare Hospice claims, MDS identifying days in NH</td>
<td></td>
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</tbody>
</table>
What A Mess!!
THIS IS WHAT WE WANT TO GET TO...
The RHF is a Puzzle Algorithm: Combines Data
Uses data from VA-provided/purchased, Medicare, Medicaid, and MDS to provide a daily summary of an individual’s health service utilization and location of care
- Includes acute inpatient, NH, hospice, ED/observation, HBPC, Home-Health Care, domiciliary care

All VA users, 2010 to December 2021, updated about quarterly

- RHF is composed of 3 main tables:
  - SEG – all the inputs, standardized
  - EPB – “Episodelets” of contiguous days with the same mix of services and providers; it is identified by the person identifier and from/thru dates
  - EPC – All segments pertaining to each episodelet (scrssn, from, thru)

- On-going evolution as data sources change and care definitions are refined
An Example of One Patient Month in the RHF*

<table>
<thead>
<tr>
<th>S</th>
<th>M</th>
<th>T</th>
<th>W</th>
<th>Th</th>
<th>F</th>
<th>S</th>
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<tr>
<td>HBPC Admission February</td>
<td>1</td>
<td>HBPC MF</td>
<td>2</td>
<td>HBPC MF</td>
<td>3</td>
<td>HBPC MF</td>
</tr>
<tr>
<td>7</td>
<td>HBPC MF</td>
<td>8</td>
<td>HBPC MF</td>
<td>9</td>
<td>HBPC MF</td>
<td>10</td>
</tr>
<tr>
<td>14</td>
<td>CLC HBPC MF</td>
<td>15</td>
<td>CLC HBPC MF</td>
<td>16</td>
<td>CLC HBPC MF</td>
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<tr>
<td>21</td>
<td>Hospice CLC HBPC MF</td>
<td>22</td>
<td>Hospice CLC HBPC MF</td>
<td>23</td>
<td>Hospice CLC HBPC MF</td>
<td><strong>24</strong></td>
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<tr>
<td>28</td>
<td>Post Death</td>
<td>29</td>
<td>Post Death</td>
<td>30</td>
<td>Post Death</td>
<td>31</td>
</tr>
</tbody>
</table>

- **Death**
- ▲ **HBPC Visits**
- **1A** **MDS Admission**
- **2P** **MDS 7-Day Assessment**
- **8D** **MDS Discharge**

*Made-up example of what actual episodelets might look like.
## Residential History EPB File*

<table>
<thead>
<tr>
<th>Person ID</th>
<th>From Date</th>
<th>Thru Date</th>
<th>Date of Death</th>
<th>Location/Service 1</th>
<th>Location/Service 2</th>
<th>Location/Service 3</th>
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<tr>
<td>123</td>
<td>3/7/2010</td>
<td>4/1/2015</td>
<td>4/20/2015</td>
<td>05. CLC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>4/2/2015</td>
<td>4/4/2015</td>
<td>4/20/2015</td>
<td>01. INP VA</td>
<td>05. CLC</td>
<td></td>
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<tr>
<td>123</td>
<td>4/5/2015</td>
<td>4/20/2015</td>
<td>4/20/2015</td>
<td>04. HOSPICE VA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>123</td>
<td>4/21/2015</td>
<td>9/30/2021</td>
<td>4/20/2015</td>
<td>98. POST DEATH EXTRACT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>456</td>
<td>6/1/2018</td>
<td>7/30/2018</td>
<td></td>
<td>08. HBPC</td>
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<tr>
<td>456</td>
<td>7/31/2018</td>
<td>8/14/2018</td>
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<td>01. INP VA FEE</td>
<td>08. HBPC</td>
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<td>456</td>
<td>8/15/2018</td>
<td>9/15/2018</td>
<td></td>
<td>03. SNF MDCR</td>
<td></td>
<td></td>
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<td>456</td>
<td>9/16/2018</td>
<td>9/16/2018</td>
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<td>07. VA ED</td>
<td>03. SNF MDCR</td>
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<tr>
<td>456</td>
<td>9/17/2018</td>
<td>9/20/2018</td>
<td></td>
<td>01. INP VA FEE</td>
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<td></td>
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<tr>
<td>456</td>
<td>9/21/2018</td>
<td>9/30/2021</td>
<td></td>
<td>00. GAP</td>
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<td></td>
</tr>
</tbody>
</table>

*This table is a simplified example of the RHF EPB data structure and presents some of the main fields/variables*
Some RHF Applications

- Identifying site of death
- Identifying long-term institutionalization
- Identifying likely CLC location at the onset of COVID-19 infection
- Identification of Medicare hospice in nursing homes
Value-Added Data

- Value added MDS from CLCs, SVHs and civilian (community) NHs
  - Activities of Daily Living (ADL) scores
  - Resource Utilization Groups (RUGS)
  - Identification if the MDS assessment was for a long-stayer or short stayer

- Value added Home Based Primary Care (HBPC) Masterfile
  - Activities of Daily Living (ADL) scores
JEN Frailty Index (JFI)

- JEN Frailty Index comprises 13 diagnosis domains representing multimorbid clusters with high LTI risk.
  - Cancer, Chronic Medical Disease, Dementia, Chronic Mental Illness, Minor Ambulatory Limitations, Severe Ambulatory Limitations, Pneumonia, Renal Disorders, Self-Care Impairment, Sensory Disorders, Syncope, Other Systemic Disorders, Chronic Developmental Disability

- Proprietary algorithm developed by Westat (formerly JEN Associates)
  - GECDAC holds a 10-year license to produce JFI scores within VA

- Calculated monthly using diagnoses from prior 12 months

- 2010 to present, all VA users

- Two versions, VA-only and combined VA+Medicare
Independence at Home (IAH-Q)

- Independence at Home: Medicare program modeled after VA’s HBPC
- Medicare Eligibility criteria: 2+ chronic conditions, need assistance with 2+ ADLs, 1+ acute admission in the prior 12 months, received post-acute services in the prior 12 months
- IAH-Q is the VA version of the Medicare eligibility criteria, replacing the ADL requirement with the requirement that JFI be greater than 5.
- Uses combined VA+Medicare data.
- Calculated monthly, 2010 to present (with a time lag), all VA users
High Need High Risk (HNHR)

- Originally developed as a tool to identify candidates for HBPC
- Criteria: JFI>5, veteran, not deceased, no HBPC enrollment in prior year, not currently residing in NH, 1+ acute admissions in prior year, not ESRD, no hospice/palliative/MFH in prior year
- HNHR selection score further prioritizes candidates
  - Based on age, ACSC, JFI, HCC/MHCC categories, Ambulatory Care Sensitive Conditions, spinal cord injury
- Uses VA data only
- Calculated monthly using data from prior 12 months
- 2010 to present, all VA users
Predicted Long-Term Institutionalization (PLI)

- Computed on all Veterans who are not Long-Term Institutionalized (~1.1%) and not receiving hospice care (0.9%).

- Two versions
  - **Research Version** – calculated annually, starting in FY2014 through FY2020
  - **Production Version** – modified research version to take advantage of as much data as possible for current/very recent time point. Calculated quarterly (now available: May 2021, August 2021, December 2021)

- **Score and Risk Tier**
  - *Score is the predicted probability based on the research or production version weights and data*
  - *Risk tiers = high, moderate, low, identifying 3.8%, 5.6%, 89.5% of users*
HCC and MHCC Indicators and Score

- **HCC**: Hierarchical Clinical Conditions
- **HCC score using CMS V21 (PACE) risk adjustment model**
  - 174 HCC condition indicators
  - V24 model will be available soon
- **MHCC**: A series of 87 mental health indicators used for Nosos
- Calculated annually, using fiscal year diagnoses
- 2010 to present, all VA users
- **Two versions, VA-only and combined VA and Medicare**
Geri-Nosos

- Similar to standard Nosos scores but:
  - uses blended VA+Medicare diagnoses
  - Adds JFI

- Calculated annually

- 2010 to present, all VA users

- New improved version coming soon
  - Calibrated on specific geriatric populations such as HBPC
  - Using HCC V24 score
  - Additional HCC variables from V24
3/22 Partnered Research Cyberseminar Series

VA + Medicare + Medicaid: Demographics, Enrollment, Geography

Risk Scores: HCC, JFI, CAN, NOSOS

Health Conditions:
- Complex Conditions System CCS: (CCS)
- Mental Health CC
- Elixhauser

VAMC Aggregates:
% GEC Penetration, % PCS Penetration

Utilization Outcomes:
% Days in Community, (Re-) Hospitalization, Long-Term Institutionalization

Expected Costs

GCF: All Veterans VHA Users

GEC Services
GeriPACT
Personal Care Services (PCS)
Home-Based Primary Care
Skilled home care

VA Drug Classes

End of Life Services: Hospice, Palliative Care

Health Factors Extraction: Life Sustaining Treatment Telehealth CCF

PULLING TOGETHER: GECDAC Core Files (GCF)
Sharing Data Products

- GECDAC shares with operations and research groups
- GECDAC Provides Documentation
  - VIReC Researcher’s Notebook 12: Identifying CLC Stays
  - Contact GECDAC for:
    - GCF Guidebook
    - RHF Guidebook (coming soon)
    - Tutorials (GEC Explorer, RHF)
Requesting Access to GECDAC Data Products

- **Blended/ Multi-Source Data:** Designation by VA’s Medicare/ Medicaid Analysis Center (MAC) that blending the data cannot be traced back to the source data and are to be used in aggregate (not clinically)
  - Variables: JFI, IAH-Q, HCC score, PLI, Geri-Nosos, PLI (not for clinical use)
  - Research: Request through DART
  - Operations: Obtain VA National Data Service (NDS) approval through ePAS

- **Products using VA and Medicare data** (not considered “blended/ multi-source”)
  - Research: Contact GECDAC through VIREC/CMS
  - Operations: Contact GECDAC through MAC
Requesting Access to GEC Owned Data

- MDS from CLCs and SVHs and HBPC Masterfile
- Requires GEC Program Office Data Access Approval (PODAA)
- Available as annual fiscal-year files and current fiscal-year monthly updates

Data Access
- Research: via DART
- Operations: from GEC via VSSC (MDS) and GECDAC (Masterfile)
Take Home from GECDAC

- Health Services Research work regarding care of older population requires understanding of GEC Continuum of Vulnerability and community partners.
- Plethora of data sources, and they need to be integrated; GECDAC has made this possible.
- Measuring risk in population is key – GECDAC creates risk measures.
- Having created the resources for operations, GECDAC created data processes to share its integrated data products.
- GECDAC always interested in curating new data, measures and methods from researchers/ others.
THANK YOU!
Questions?
CONTACT INFORMATION

GECDAC@VA.Gov

URL:
https://www.va.gov/GERIATRICS/Geriatrics_and_Extended_Care_Data_Analysis_Center.asp
## List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Name</th>
<th>Type</th>
<th>Acronym</th>
<th>Full Name</th>
<th>Type</th>
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<tbody>
<tr>
<td>AAC</td>
<td>Austin Automation Center</td>
<td>Data System</td>
<td>MCAO</td>
<td>Managerial Cost Accounting Office</td>
<td>VA Office</td>
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<td>ADL</td>
<td>Activity of Daily Living</td>
<td>Measure</td>
<td>MDS</td>
<td>Minimum Data Set</td>
<td>Assessment</td>
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<td>Allocation Resource Center</td>
<td>VA Office</td>
<td>NDS</td>
<td>National Data Service</td>
<td>VA Office</td>
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<td>Corporate Data Warehouse</td>
<td>Data System</td>
<td>PACE</td>
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<td>National Program</td>
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<td>GEC Program</td>
<td>PIT</td>
<td>Program Integrity Tool</td>
<td>Data System</td>
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<td>CMS</td>
<td>Center for Medicare &amp; Medicaid Services</td>
<td>Federal Office</td>
<td>RHF</td>
<td>Residential History File</td>
<td>Value-Added Data</td>
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<td>CNH</td>
<td>Contract Community Nursing Home</td>
<td>GEC Program</td>
<td>VA</td>
<td>Registered Nurse</td>
<td>Term</td>
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<td>Measure</td>
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<td>Department of Veterans Affairs</td>
<td>Federal Office</td>
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<td>Data System</td>
<td>VIREC</td>
<td>VA Information Resource</td>
<td>Resource Center</td>
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<td>Data System</td>
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<td>Medicare Demonstration</td>
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<td>Medical Service</td>
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GEC Explorer Data Visualization

- Addressing needs of GEC in VISNs
- Web-based Data Visualization
  - Per VA Parent Station (currently 139) and fiscal year (currently 2007-2020)
  - Comparisons to national and Veteran Integrated Service Network (VISN) benchmarks
  - Filters:
    - Age groups (<65, 65-74, 75-84, >=85)
    - Priority status (P1A, P1B, P4, Other)
    - Dementia (yes, no)
    - JEN Frailty Index categories (low 0-2, medium 3-5, high 6-8, very high 9+)
    - HNHR: none, <2, 2+
    - CAN Scores
  - Types of figures: over-time boxplots, compare up to 9 stations, 2-variable scatterplot
Boxplot over all VAMCs for each year. Outliers are excluded unless in selected center or VISN. Aggregate data. Lines show values for the selected Facilities.
Data curation and analysis by GECDAC.
Veterans for Selected Population and Centers, 2019
Including VISN (solid line) and National (dashed) Medians
VAMC selected data scatter for FY: 2017

Data curation and analysis by GEDC.
GEC-Related Risk Measures

- **JEN Frailty Index (JFI)**
  - The JFI is a risk score that uses recorded diagnoses to measure the risk of long-term care admissions. GECDAC holds a license from Westat (formerly JEN Associates) to produce JFI scores within VA.

- **Independence At Home qualification (IAH-Q)**
  - 2+ chronic conditions + need assistance with 2+ activities of daily living (ADLs) + have had a non-elective hospital admission within the last 12 months + received post-acute services that generated a post-acute care assessment. Identifies 6% of population at high risk of utilization, spending, and LTI.

- **High-Need High-Risk (HNHR)**
  - GECDAC developed a risk measure to identify Veterans who meet the Independence At Home qualification using only VA data.

- **Predicted Long-Term Institutionalization (PLI)**
  - GECDAC risk measure to predict 2-year risk of LTI
  - PLI-Tiers: High, Medium, Low

- **Hierarchical Clinical Condition (HCC) Scores and indicators**
  - Used for capitating Medicare Advantage programs

- **Mental-Health Clinical Conditions (MHCC) indicators**
  - 87 mental health conditions curated by

- **Geri-Nosos**
  - VA Nosos with Medicare diagnoses, Calibrated to GEC populations
  - Concurrent model version for program evaluation.
Partnered Research

BONUS SLIDES
## Resources for VA Data Users

<table>
<thead>
<tr>
<th>Resource Name</th>
<th>URL</th>
<th>Access</th>
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<tr>
<td>VA Information Resource Center (VIREC)</td>
<td><a href="https://vaww.virec.research.va.gov/Index.htm">https://vaww.virec.research.va.gov/Index.htm</a> (VA Intranet)</td>
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<td>VIReC Cyberseminars</td>
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<td>VA Informatics and Computing Infrastructure (VINCI)</td>
<td><a href="https://vaww.vinci.med.va.gov/vincicentral/">https://vaww.vinci.med.va.gov/vincicentral/</a> (VA Intranet)</td>
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<td>Corporate Data Warehouse (CDW)</td>
<td><a href="https://vaww.cdw.va.gov/Pages/CDWHome.aspx">https://vaww.cdw.va.gov/Pages/CDWHome.aspx</a> (VA Intranet)</td>
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<td>Center for Evaluation and Implementation Resources (CEIR):</td>
<td><a href="https://www.queri.research.va.gov/ceir/default.cfm">https://www.queri.research.va.gov/ceir/default.cfm</a></td>
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Questions about using VA Data?

HSRData Listserv

- Community knowledge sharing
- ~1,400 VA data users
- Researchers, operations, data stewards, managers

Subscribe by visiting
https://vaww.virec.research.va.gov/Support/HSRData-L.htm (VA Intranet)

VIReC HelpDesk

- Individualized support

virec@va.gov