

# All-Payer Claims Databases

JOINT COMMISSION ON HEALTH CARE

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June 14, 2011



## Agenda

- Background
- All-Payer Claims Database (APCD)
- APCD at VHI
- Potential Avenues for Further Study

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## Background: 2010 JCHC Approved Option

Staff review:

- (i) other states' efforts to publicly disseminate expansive cost and quality information by specific facility and provider for selected medical procedures; and
- (ii) legal, financial, data and other requirements for Virginia Health Information to provide similar specific cost and quality information through an All-Payer Claims Database in order to improve quality and health outcomes.

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## Background: Different Groups Can be Assisted by an APCD

The 2010 study option focused on APCDs to provide greater cost and quality transparency for consumers.

APCDs can also provide timely information about health care procedures, variation and costs for:

- Policymakers
- Researchers
- Employers
- Employees
- Providers
- Insurers
- Public Health
- Quality-efforts

APCD would allow Virginia to build on our current VHI system and enhance the knowledge of our health care system for better understanding, transparency of cost, and service performance.

– 2010 Virginia Health Reform Initiative report

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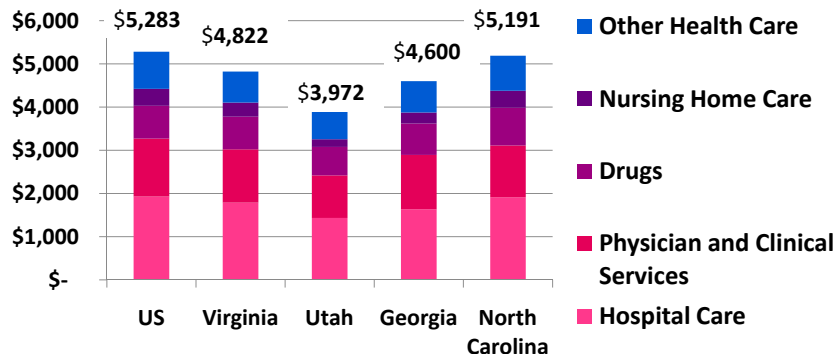
## Background Health Care Facts: State Costs, State Inflation, Sector Inflation and Region Quality

- Fact 1:** Virginia's 2004 per capita health care costs are lower than the U.S. (\$4,822 vs. \$5,283)
- Fact 2:** Virginia's annual health care inflation rate from 1991-2004 is higher than the U.S. average (5.6% vs. 5.5%)
- Fact 3:** Virginia health care sectors annual inflation from 1991-2004
- Rx with medical non-durable expenses had the highest increases of 8.4%
  - Hospital Care was lowest at 4.6%
- Fact 4:** Preventable hospital readmissions in Virginia differ by geography
- Fact 5:** More expensive health care does not yield higher quality
- Fact 6:** Significant variation exists for states' health care costs and inflation, health care sector costs and inflation as well as quality of care geographically

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## Fact 1: Virginia's per Capita Health Care Costs Are Lower than U.S. but Higher Than Some States (2004)

2004 Personal Health Care Expenses (per capita)



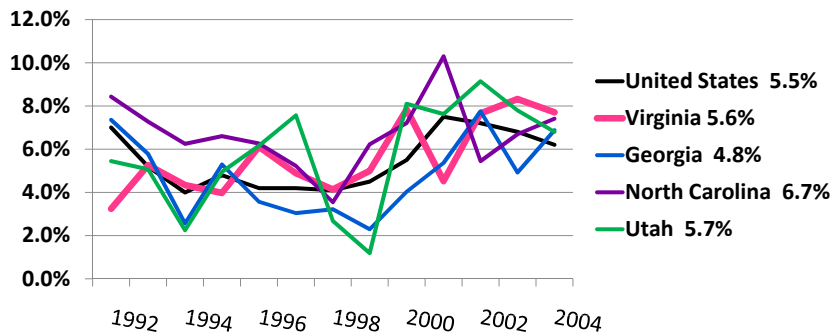
Health care costs vary across states....

Source: US per Enrollee State Estimates of Residents, CMS, Office of the Actuary, September 2007

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## Fact 2: Virginia's Health Care Inflation Is Above the U.S. Average

Health Care Expenditure Growth (per capita)



If Virginia's 1991-2004 average health care inflation rate (5.6%) decreased by 1%, then 2004 per capita expenditures would be 13% lower (\$4,259 instead of 4,822)

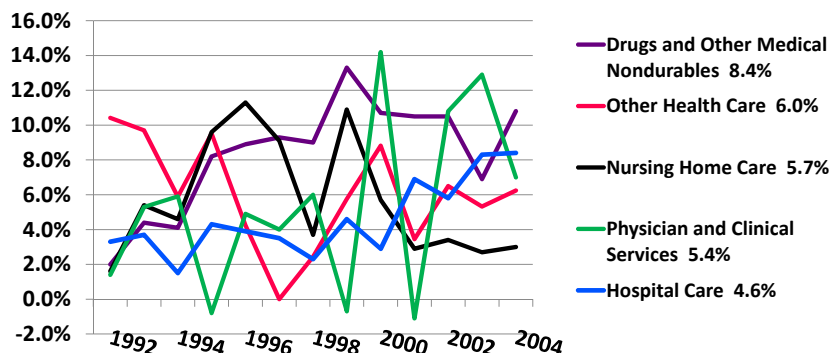
Health care inflation varies across states....

Source: US per Enrollee State Estimates of Residents, CMS, Office of the Actuary, September 2007

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## Fact 3: Rx and Other Medical Nondurable Expenses Increased an Average of 8.4% per year from 1992-2004

Virginia Health Care Sector Expenditure Growth (per capita)



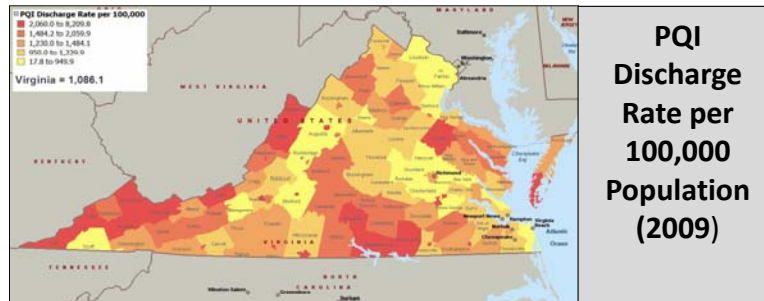
Healthcare inflation varies across sectors....

Source: US per Enrollee State Estimates of Residents, CMS, Office of the Actuary, September 2007

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## Fact 4: Preventable Hospital Readmissions in Virginia Differ by Geography

- 28% of localities are 1.5 times higher of State average (37 of 134)
- 18% are of localities are ½ or lower of State average (24 of 134)



*Prevention Quality Indicators (PGIs)* can identify conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.

Healthcare quality varies across Virginia....

Sources: Atlas of Community Health Map Book, March 2011, produced by Community Health Solutions at [vitality.communityhealthinfo.com](http://vitality.communityhealthinfo.com), VHI website and JCHC staff analysis.

## Fact 5: More Expensive Health Care Does Not Yield Higher Quality

“The evidence does not indicate that higher Medicare spending is associated with better care for Medicare beneficiaries”  
 - Congressional Budget Office (CBO)

**A 2008 CBO report on Medicare spending noted the following possible reasons for geographic variation in spending:**

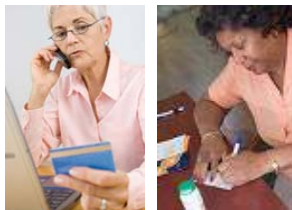
1. Differences among regions in the prices of medical services and in the population’s health status
  - These factors most likely explain less than half of total variation, and possibly much less
2. Demographic factors and patients’ treatment preferences
  - Contribute only a small amount to geographic variation
3. Much or most of the variation cannot be explained by prices, health status, demographics, or treatment preferences

Is the right care being provided?

Source: Geographic Variation in Health Care Spending, February 2008, Congressional Budget Office at [http://www.cbo.gov/ftpdocs/08xx/doc0872/MainText\\_3\\_1.shtml](http://www.cbo.gov/ftpdocs/08xx/doc0872/MainText_3_1.shtml)

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## Consumers Are Expected to Be More Responsible for Health Care Expenses



### Health Care Payment Trends

- Consumers will “take on more of the risk associated with health care ...”
- “With persistent medical inflation, employers continue to promote greater employee cost sharing to reduce their health care spending.”
- “Individuals play a major role in the flow of health care funds. And [PPACA] will only increase the role of individuals.”

Consumers are more financially involved in their care...

Source: McKinsey and Co., Then Next Wave of Change for U.S. Health Care Payment, McKinsey Quarterly, May 2010.

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## More Public Health Care Cost and Quality Data Could Facilitate Better Decisions

### VHI Collects Information for Certain Health Care Services

#### Available Data

- Hospital in-patient
- Limited Outpatient surgery

#### Not Available Data

- Rx data
- Outpatient visits
- Other Outpatient procedures /tests
- Labs
- Dental
- Medical equipment

VHI cannot currently analyze across the care continuum and episodes of illness

### VA Health Insurance Coverage (2009) (% of population)

- Employer - 58%
- Individual - 4%
- Medicaid - 10%
- Medicare - 12%
- Other Public - 3%
- Uninsured - 13%

*In Virginia, the only health care data across the care continuum that is publicly available is for Medicaid and Medicare beneficiaries (22% of the insured)*

APCDs provide more health care information than is currently publicly available....

Source: Kaiser Family Foundation, Statehealthfacts, <http://www.statehealthfacts.org/profileind.jsp?cmprgn=1&cat=3&rgn=48&ind=125&sub=39> & Patrick Miller, Denise Love, Emily Sullivan, Jo Porter and Amy Costello, All-Payer Claims Databases: An Overview for Policymakers, May 2010 & conversation with Michael Lundberg from VHI.

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## What Is an All-Payer Claims Database (APCD)?

Databases that typically include data derived from medical, eligibility, provider, pharmacy, and/or dental claims from private and public payers:

- Insurance carriers
  - Medical, dental, third party administrators (TPAs), pharmacy benefit managers (PBMs)
- Public payers
  - Medicaid, Medicare, Veterans Administration

APCDs can allow for a broad understanding of cost and utilization across institutions and populations

Source: Slide from NAHDO Annual Conference, October 2009  
Patrick Miller, MPH Research Associate Professor, University of New Hampshire (revised by JCHC staff).

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## APCDs Can Answer Many Health Care Questions

- Which hospitals, surgical centers or doctors have the highest ratings for certain medical procedures?
- Which hospitals, surgical centers or doctors have the lowest prices by procedure, or treatment? What do health insurance companies pay for these services?
- In what geographic areas is public health improving?
- If emergency room usage in Medicaid is higher than the commercial population, what are the possible reasons?
- How far do people travel for services and for what type of services?
- Are established clinical guideline measurements related to quality, safety, and continuity of care being met?
- What are the key public health issues by city and county?

Sources: Slide content from Alan Prysunka presentation to Virginia Health Reform Initiative Technology Task Force November 16, 2010 & Patrick Miller, Denise Love, Emily Sullivan, Jo Porter and Amy Costello, All-Payer Claims Databases: An Overview for Policymakers, May 2010.

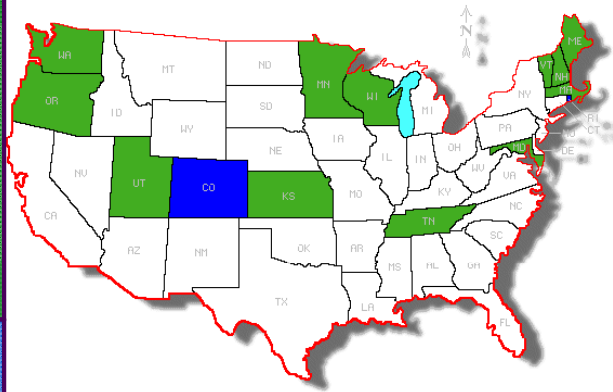
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## 12 States Have Existing APCDs and 2 States Are in Implementation

Existing:
Kansas
Maine
Maryland
Massachusetts
Minnesota
New Hampshire
Oregon
Tennessee
Utah
Vermont
Washington
Wisconsin

Implementing:
Colorado
Rhode Island



Sources: APCD Council email correspondence with JCHC staff & Oregon APCD website.

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## APCD Primary Focus Varies Among States

	Cost	Quality	Efficiency	Geographic Differences	Episodes of Care	System Utilization
Kansas	■	■	■	■	■	■
Maine	■	■		■	■	■
Maryland	■		■	■		
Massachusetts	■					■
Minnesota	■	■		■	■	■
New Hampshire	■	■	■	■	■	■
Oregon	■					
Tennessee	■	■		■	■	■
Utah	■	■	■	■	■	■
Vermont	■	■		■	■	
Washington	■	■		■	■	■
Wisconsin	■	■	■		■	■

Other uses include: cost and quality benchmarking for Medicaid payment rates, measuring competition within the commercial health market, and potential risk adjustments.

Sources: APCD Council correspondence with JCHC staff & Tennessee APCD website.

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## Specific State Uses for APCDs

- Help employers understand variations in the cost and utilization of services by geographic area and in different provider settings (ME, NH)
- Explore value (cost and quality) for services provided (NH)
- Inform design and evaluation plans for payment reform models (NH, VT)
- Evaluate the effect of health reforms on the cost, quality, and access to care in a state (MD, VT)
- Compare utilization patterns across payers to inform state purchasing decisions for Medicaid (NH) and identify successful cost containment strategies (NH, VT)

Source: Patrick Miller, Denise Love, Emily Sullivan, Jo Porter and Amy Costello, All-Payer Claims Databases: An Overview for Policymakers, May 2010. 17

## States Will Have a More Significant Role in the Health Care Market

### PPACA increases the number of health care market participants overseen by states

- Insured State employees (*currently*)
- Health Benefits Exchange participants in 2014 (*if state-operated*)
- U.S. Medicaid program
  - Enrollees
    - 60 million (*currently*)
    - Additional 16 million in 2014
  - Percentage of state budgets
    - 22% average
    - 25-30% average in 2014

#### Virginia Medicaid Facts

##### **FY 2001 to FY 2010**

- Budget increased 122% (5x inflation rate)

##### **Enrollment**

- 764,000 in 2010
- Additional 271,000 – 425,000 in 2014

##### **% of State budget**

- 20.7% state-only portion
- 18.8% of total

Sources: , Brad Finnegan, National Governors Association, APCD: A View from NGA, presentation October 15, 2010, Report of the Virginia Health Reform Initiative Advisory Council, December 20, 2010. & JLARC, Review of State Spending: 2010 Update

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## APCDs CAN BENEFIT DIFFERENT GROUPS AND AREAS

- |                 |                    |
|-----------------|--------------------|
| A. Consumers    | F. Providers       |
| B. Policymakers | G. Insurers        |
| C. Researchers  | H. Public Health   |
| D. Employers    | I. Quality-efforts |
| E. Employees    |                    |

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## AVERAGE HEALTH CARE COST INFORMATION BY PROCEDURE AND PROVIDER COULD BE PUBLISHED

### Detailed Estimate for MRI – Knee (outpatient)

Procedure: MRI - Knee (outpatient)  
Insurance Plan: Anthem - NH, Preferred Provider Organization (PPO)  
Within: 50 miles of 03301  
Deductible and Coinsurance Amount: \$1,000.00 / 20%

Consumer Cost Estimate

Precision Cost Estimate

Lowest Average Cost

Highest Average Cost

Lead Provider Name	Estimate of What you Will Pay	Estimate of What Insurance Will Pay	Estimate of Combined Payments	Precision of the Cost Estimate	Typical Patient Complexity	Contact Info
ACCESS SPORTS MEDICINE & ORTHOPAEDICS	\$686	\$0	\$686	Medium	HIGH	ACCESS SPORTS MEDICINE & ORTHOPAEDICS 603.775.7575
25 Providers Listed in Search Results						
BEDFORD AMBULATORY SURGICAL C	\$769	\$0	\$769	HIGH	VERY LOW	BEDFORD AMBULATORY SURGICAL C
WENTWORTH DOUGLASS HOSPITAL	\$1368	\$1472	\$2840	LOW	VERY HIGH	DOUGLASS HOSPITAL 603.742.5252
PORTSMOUTH REGIONAL HOSPITAL - HCA AFFIL	\$1378	\$1514	\$2892	High	MEDIUM	PORTSMOUTH REGIONAL HOSPITAL - HCA AFFIL

HDHP and Uninsured Consumers are most assisted by this type of information

Sources: Maine, New Hampshire and Oregon APCD websites & graphic from www.nhhealthcost.org and modifications by JCHC staff. 20

A. CONSUMER BENEFITS THROUGH TRANSPARENCY

## APCDs Provide a Better Tool to Develop Policies and Assess a Proposed Policy's Impact

### Policyholders

- Provide a better understanding of current health care system and its costs and quality by geographic area
- Assess market impact of proposed health policy changes
  - Medicaid
  - Health care and payment reforms
  - Mandated Health Insurance Benefits Commission

### Researchers

- Investigate specific Virginia health care cost data to identify trends in costs, quality, and usage

Source: Patrick Miller, Denise Love, Emily Sullivan, Jo Porter and Amy Costello, All-Payer Claims Databases: An Overview for Policymakers, May 2010. 21

## APCDs Provides Information to Structure Better Medicaid Policies

- Benchmarking payments compared to commercial payers across primary care, inpatient, and outpatient services
- Better understand patterns, cost, and quality by comparing to commercial market

### Payment Rate Benchmarking in New Hampshire

Procedure Code	Average Payment Including Patient Share, 2006			
	Health Plan 1	Health Plan 2	Health Plan 3	NH Medicaid
99203 Office/Outpatient Visit New Patient, 30 minutes	\$124	\$115	\$130	\$42
99212 Office/Outpatient Visit Established Patient, 10 minutes	\$51	\$48	\$52	\$30
99391 Preventive Medicine Visit Established Patient Age <1	\$111	\$102	\$107	\$61
90806 Individual Psychotherapy in Office/ Outpatient, 45-50 minutes	\$72	\$71	\$71	\$61

Source: NH Department of Health and Human Services payment rate benchmarking study.

Source: APCD Council, All-Payer Claims Databases in Public Health and Medicaid: A Fact Sheet

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## APCDs Can Help Employees to Make Better Care Decisions

APCD is a tool that can assist employers in facilitating the lowest cost, best quality care at the right time for employees

- Employers are shifting more health care costs to employees
- Most helpful for employers that offer high-deductible health plans or tiered plans

APCD benchmarking of cost, quality, preventive service measures, and high-cost cases across populations to improve health and wellness programs

Educate employees about hospital costs and quality

Source: Patrick Miller, Denise Love, Emily Sullivan, Jo Porter and Amy Costello, All-Payer Claims Databases: An Overview for Policymakers, May 2010. 23

## APCDs Promote Better Information to Understand and Manage Insured Populations

### Providers

- Hospitals need better information to understand care offered in outpatient settings and costs in movement towards accountable care organizations (ACOs)
- Identify practice inefficiencies and adjust accordingly
- Insurer negotiation

### Insurers

- Better prepare to manage new insured populations
- Cost, quality, and utilization benchmarking
- Provider negotiation

Source: Patrick Miller, Denise Love, Emily Sullivan, Jo Porter and Amy Costello, All-Payer Claims Databases: An Overview for Policymakers, May 2010. 24

## Better Understanding, Evaluation, and Targeting of Public Health Efforts

- Identify and track success of strategies to provide consistent high quality preventive health and health care
  - To better understand cause for high re-admission rates, investigate the likelihood of outpatient check-ups between admissions
  - Understand what is leading to the current improvement in cardiac care for African-American women in Virginia
    - VDH's only Virginia data to investigate heart attacks are from inpatient records and catheterization labs
- Use for public health surveillance and investigation
  - VDH's current Lyme Disease investigation is limited because incidence data only comes from hospital admissions and lab tests and **not** from outpatient settings where diagnoses occur without a lab test
- Improve understanding about diseases across settings and across payers
  - Outpatient care treats many injuries, diseases, and conditions but information is not consistently captured
- Identify lifetime health care costs and value of interventions by linking to vital records

Source: APCD Council, All-Payer Claims Databases in Public Health and Medicaid: A Fact Sheet & JCHC staff discussion with Virginia's Health Commissioner, Karen Remley.

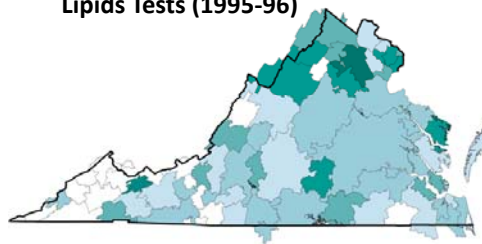
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## APCDs Can Identify the Extent of Preventive Health Measures Used

### Percent of Diabetic Medicare Enrollees Receiving One or More Blood Lipids Tests (1995-96)

Percent of Diabetic Medicare Enrollees Receiving Blood Lipids Testing  
by Hospital Service Area (1995-96)

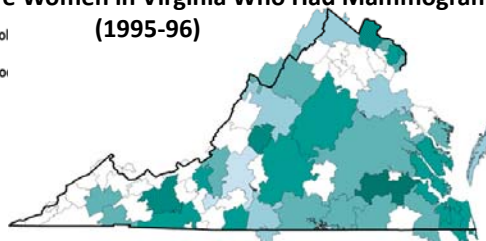
60 or More	(1)
50 to < 60	(9)
40 to < 50	(10)
30 to < 40	(18)
Less than 30	(15)
Statistically Imprecise	
Suppressed for Confidentiality	



### Percent of Medicare Women in Virginia Who Had Mammograms (1995-96)

Percent of Female Medicare Enrol Age 65-69 Having At Least One Mammogram in a Two-Year Period  
by Hospital Service Area (1995-96)

60 or More	(1)
50 to < 60	(17)
40 to < 50	(13)
30 to < 40	(5)
Less than 30	(1)
Statistically Imprecise	
Suppressed for Confidentiality	

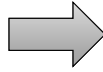


Source: Dartmouth Atlas of Health Care in Virginia, Center for the Evaluative Clinical Sciences – Dartmouth Medical School & Main Medical Assessment Foundation (2000)

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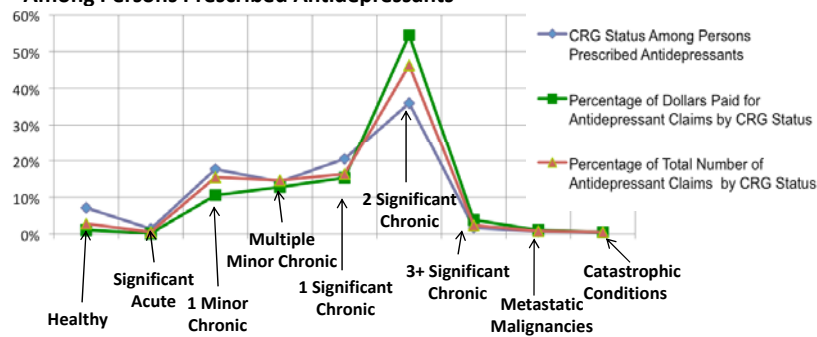
## APCDs May Allow for Identification of More Effective and Less Costly Treatments

UTAH: Study using APCD identified that over 1/3 of persons prescribed anti-depressants have 2 or more chronic diseases



Further study of how chronic disease and depression affect each other may yield more effective and less costly treatment

### Comparison of Antidepressant Usage and Claims by Clinical Risk Group (CRG) Among Persons Prescribed Antidepressants



Source: Gaskill, M. Antidepressant Use in Utah. Utah Department of Health, Health Data Committee, Office of Health Care Statistics. Utah Atlas of Healthcare: 1(1), September 2010.

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## Is VHI an Appropriate Location for an APCD?

### VHI Benefits

- Currently manages some typical APCD information for inpatient and outpatient surgery services
- Track record of success managing, analyzing, and publishing health care cost and quality information
  - VDH contracts with VHI to provide health care provider and insurer cost and quality data
- Existing data and confidentiality policies
- Existing data management processes
- Existing relationships with stakeholders
- Governance structure contains stakeholders

VHI publicly provides health care cost information from insurers

- Pursuant to HB 603 (2008)

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## Common APCD Concerns Raised in States

- Which entities would be required to submit data
  - Cost of compliance for entities providing information
- Consumer data privacy and security
- Assuring that any specific provider-level price and quality data reported is accurate
  - Accounting for patient case complexity
- Providing provider payment rates publicly could increase health care costs

Source: NSCL Briefs for State Legislators, Collecting Health Data: All-Payer Claims Databases, May 2010.

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## FURTHER STUDY AVENUES

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## Potential Further Study Avenues

**Avenue 1:** No further action by JCHC staff

**Avenue 2:** Create a special Subcommittee of JCHC members to review APCDs further and possibly recommend specific APCD-related options during the JCHC October 17, 2011 meeting. *(Stakeholders would be invited to present and participate during the subcommittee meetings.)*

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## Specific Issues That Would Need to Be Worked Through for a Virginia APCD

- APCD Governance
- APCD Focus
- Data collection
  - Mandated submission?
  - Which payers submit data?
  - Does data include patient identifier data?
- Data release rules
- Public dissemination of data
- Funding
  - VHI-provided estimates to house APCD and associated analytics based on national data
    - ❖ \$1 million startup
    - ❖ \$750K - \$1 million in annual costs

Many APCD permutations are possible

Sources: Denise Love, William Custer and Patrick Miller, All-Payer Claims Databases: State Initiatives to Improve Health Care Transparency, September 2010 & discussion with Michael Lundberg of VHI.

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## APPENDICES

### A: VHI information

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## Appendix A: VHI Board of Directors Nominating Organizations

### Business

Virginia Chamber of Commerce  
Virginia Business Council  
Virginia Manufacturers Association

### Hospital

Virginia Hospital and Healthcare Association

### Insurance

Anthem  
Virginia Association of Health Plans

### Nursing Facility

Virginia Association of Nonprofit Homes for the Aging  
Virginia Health Care Association

FROM NUMBERS TO KNOWLEDGE



### Physician

Medical Society of Virginia  
Old Dominion Medical Society

### State

Joint Commission on Health Care  
Virginia Department of Health

Source: [http://www.vhi.org/about\\_stakeholders.asp](http://www.vhi.org/about_stakeholders.asp)

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## VHI Current Databases

- Inpatient Hospital Discharges
- Financial and Operational Data for Hospitals and Nursing Facilities (EPICS)
- Hospital obstetric programs
- Outpatient Surgery (7 specific procedure groups)
- HMO Rankings based on HEDIS CAHPS information
- Average Health Plan Allowed Amounts for 31 Commonly Performed Services
- CON Survey data; ambulatory surgical centers, hospitals, nursing facilities, MRI centers

## VHI Data Gaps

- Outpatient visits – including emergency care, doctor’s visits
- Outpatient procedures – imaging, diagnostics, less than 24 hour admissions, chemotherapy, procedures,
- Ancillary services, pharmacy, lab, physical therapy, dental
- Any other covered costs

Source: Virginia Health Reform Initiative, Health IT and Transformed Health Care presentation, August 21, 2010

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## VHI Already Collects and Manages Some Typical APCD Information

### Typical APCD Information

#### Patient/Clinical Information

- Patient identifier(encrypted)
- Type of product (HMO, PPO, FFS, etc.)
- Type of contract (single person, family)
- Patient demographics (DOB, gender, residence, relationship to subscriber)
- Diagnosis codes (including E-codes)
- Procedure codes (ICD, CPT, HCPCs)
- NDC code /generic indicator

#### Financial

- Revenue codes
- Service dates
- Service provider (name, tax ID, payer ID, specialty codes, location)
- Prescribing physician
- Plan payments
- Member payment responsibility (co-pay, co-insurance, deductible)
- Date paid
- Type of bill
- Facility type

*Categories Highlighted in Red are currently collected by VHI*

Source: Patrick Miller, Denise Love, Emily Sullivan, Jo Porter and Amy Costello, All-Payer Claims Databases: An Overview for Policymakers, May 2010 & email correspondence with Michael Lundburg, VHI.

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TYPES OF APCD DATA COLLECTED