PHSSR Grantee Number 72454

Product Type: Meeting Presentation

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Title of Presentation: Using cost analysis to identify cost saving strategies in delivering STI services

Meeting: Statewide Florida Department of Health County Health Department meeting

Sponsor Organization: Florida Department of Health

Date: June 12, 2015

Location: Webinar

Using cost analysis to identify cost saving strategies in delivering STI services

Florida Public Health PBRN

Florida HEALTH

UFHealth
UNIVERSITY OF FLORIDA HEALTH

Center for Health Equity & Quality Research

Research Team

- Bill Livingood Ph.D. and Ulyee Choe, D.O. are the Principle Investigators
- Lori Bilello Ph.D., Project Director and Co-I
- Katryne Lukens-Bull, MPH – Project Coordinator

Support for this presentation was provided by the Robert Wood Johnson Foundation through the National Coordinating Center for Public Health Services and Systems Research.

Background

- Funding crisis for Florida County Health Departments (CHD) for STI services – reductions in federal, state and local funding.
- STI rates continue to be one of the highest in the country, especially for gonorrhea, chlamydia and HIV.
- Florida had formed the PH PBRN in 2010 to research key issues that affect public health practice.
- Received funding by the Robert Wood Johnson Foundation Delivery and Costs Project (DACS) in 2013 and PHSSR in 2015.

Why Study Cost of STI Services?

- STI prevention and control programs are among the most highly reported local public health services/ surveillance data
- Surveillance data is well established and standardized (CDC methodology)
- Service provided by every county in the state
- Strong finance and service data systems to support service delivery
- Florida has high AND increasing rates of STIs – major public health issue!

Primary Aim of Initial Study (DACS)

- To identify the unit costs of delivering STI prevention and control services and examine the effects of variations in delivery system characteristics on costs including:
  - standardization/centralization of programs
  - centralization of IT and HR systems
  - economies of scale related to population size of CHD jurisdiction
  - local tax and other revenue support for CHD services

Range of county reported costs for STI (FY11/12)

	Cost per case	Cost per visit
State rate	$300.90	$157.56
County Median	$283.44	$119.40
Lowest level	$1.81	$1.43
Highest level	$893.89	$293.69

Variation Explored

1. Interviews with key informants to discuss and clarify cost variations identified during 2^0 data analysis

2. Surveyed all 67 CHDs
   - Cross-jurisdiction sharing of STI staff
   - Other staff involved in STI investigations
   - Detailed information on level of service delivery by priority populations
   - Community collaborations for testing and outreach

Findings

Funding:

- Different sources of funding impacted the level of services provided
- Wide variability in discretionary or local tax funding for county health departments
- Those CHDs that received county funding had higher unit costs

Service delivery variations:

- Cross jurisdiction sharing of DIS and surveillance staff for some counties, especially small rural counties
- Variation in the extent of STI investigations of certain populations due to funding and staffing constraints
- Over qualified staff performing DIS services in some counties

Inefficiencies identified include:

- Some services redundant to what is provided by the private sector
- Variation in screening and testing procedures – some more labor intensive than others

Conclusions and Implications

- Even with Florida's comprehensive data systems and statewide policies and procedures for the delivery of STI services, large variations exist in the cost and delivery of these services by county.
- Those counties that have local funding also have higher costs but also provide more comprehensive services.
- Next Step - This data will be used by the practice community to redefine what types of STI services should be delivered by health departments by identifying and prioritizing cost saving strategies

New RWJF Study
QI Interventions to Improve Costs

- Builds on the STD DACS results
- Utilize a Participatory Research process with engagement in the practice community
- Purpose is to study the effects of program changes designed to improve cost effectiveness of delivering STD services
- Partner with the STD Subcommittee of the Disease Control Program Council

Aim 1

- The first aim of this study will be to identify opportunities for reducing the cost of STD services by reducing or replacing inefficient and wasteful practices
- Will conduct presentations of the DACS results to the practice communities and use Nominal Group and Delphi techniques with the practitioners to select the focus of the QI studies. This process will attempt to identify "universal" cost saving measures that will be used for Aim 2

Aim 2

- Aim 2 will comprise of cost studies based on identified cost saving strategies in Aim 1 where comparative effectiveness methods will be used to determine impact of cost saving measures
- CHDs in FL who adopt this identified cost saving intervention will be compared to non-participating CHDs, potentially yielding important findings for CHD STI service delivery, which has the potential for substantial ROI

Survey Results

An initial survey was performed for the DACS study in the fall and a follow-up survey was performed last month to clarify some of the findings from the first survey.

DIS provided by another CHD

	NO employed DIS n=24		Employs DIS n=43	
	#	%	#	%
On a regular basis	24	100	6	14.0%
During outbreaks only	0	0	1	2.3%
Total	24	100%	7	16.3%

14 CHDs (20.1% of CHDs) provide DIS to other CHDs

Presumptive Treatment

	NO employed DIS n=24		Employs DIS n=43	
	#	%	#	%
following the presentation of clinical symptoms	24	100%	42	97.7%
For identified Partners/ Contacts per CDC guidelines	21	87.5%	40	93.0%
Under other circumstances (self reports, walk-ins, sexual assault, high risk)	4	16.7%	7	16.3%

Types of test used by CHDs (n= 67)

	#	%
Solely Urine test	30	44.8%
Urine mostly (>50%), some Provider collected swab	22	32.8%
Extensive Provider collected swab (≥50%)	14	20.9%
Culture & Provider swab <50 & urine <50	1	1.5%

All CHDs do STI screening in CHD clinics, most do not elsewhere

What testing is needed to provide presumptive treatment?

- When is presumptive treatment done and on what types of patients?
- Why is there so much variation in testing/screening if everyone is using presumptive treatment?
- Why do other expensive testing?

Routine Partner Services/Interviews

	NO employed DIS n=24		Employs DIS n=43	
	#	%	#	%
Gonorrhea	9	37.5%	31	72.1%
Chlamydia	8	33.3%	29	67.4%
Syphilis	22	91.7%	43	100%

What are the reasons for these variations (from 33% to 100%)?

- Which explanations present opportunities for reducing unnecessary and costly services?

Treatment Verification

- Most CHDs reported following the Priority Tier Action Grid for treatment verification for those tested positive from the following sources: CHD clinics, private physicians, emergency departments and hospitals.
- Average time it takes to do treatment verification from the following sources (number reported)

Minutes	Private Physicians	Emergency Departments	Hospitals
Less than 10	14	12	12
11-30 minutes	29	29	31
31-60 minutes	2	4	2
Greater than 60	8	7	8

Verification with Primary Care*

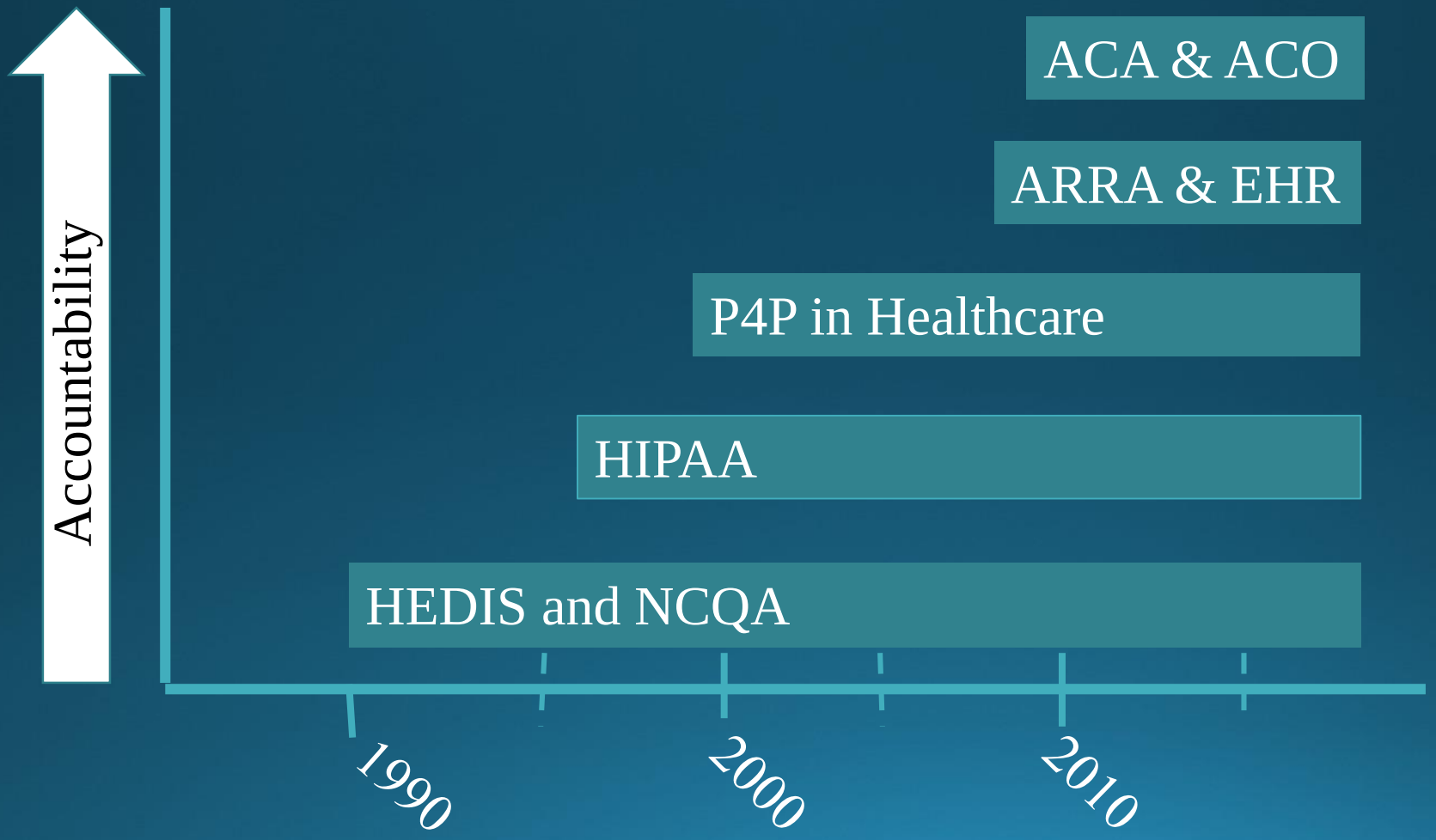
	NO employed DIS n=24		Employs DIS n=43	
	#	%	#	%
Gonorrhea	16	66.7%	32	74.4%
Chlamydia	16	66.7%	29	67.4%
Syphilis	16	66.7%	39	90.7%

*Verification with ED slightly higher

Is it reasonable for Public Health to use precious resources to ensure Private sector accountability, when:

- Huge increases in health care financing while public sector financing is decreasing (7% of GDP in 1970 to over 17%).
- Health care system already being more than maximally subsidized (highest % GDP of all developed countries)
- Increasing accountability of private healthcare system.

Increasing Health Care System Accountability



Possible Cost Saving Strategies

- Eliminate treatment verification for non-CHD positives
- Eliminate partner notification services for certain diseases
- Implement low cost screening methods
- Standardize and promote presumptive treatment
- Consolidate STD and HIV services (maybe even TB and Hepatitis)
- Cross train staff in communicable diseases sectors
- Others?

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