NC PCSI Project

Program Collaboration & Service Integration

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Background / Problem

National organizations & CDC grantees want better integration of services provided by related programs, especially prevention activities for HIV/AIDS, other STDs, viral hepatitis and tuberculosis.

Single, categorical services for people with multiple related risks can miss significant opportunities to diagnose, treat, and prevent disease.

Content source: Program Collaboration and Service Integration , NCHHSTP White Paper, 2009; U.S. Department of Health and Human Services; Centers for Disease Control and Prevention

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Background / Problem

Collaboration and integration of prevention services are accelerating because:

- HIV, viral hepatitis and STDs share common risk factors and modes of transmission
- STDs increase the risk for HIV infection
- HIV is the greatest risk factor for progression of TB
- TB is an AIDS-defining opportunistic condition
- Clinical course & outcomes are influenced by concurrent disease (HIV/TB can be deadly, and TB accelerates the progression of HIV)

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PCSI as a Solution

Small changes in service delivery can reach a larger population with more services, and can improve efficiency, cost-effectiveness and health outcomes.

A strategic priority approach to **program collaboration and service integration (PCSI)** can strengthen collaborative work across disease areas and integrate services provided by related programs, especially prevention activities related to HIV/AIDS/viral hepatitis/TB, and other STDs at the client level.

Content source: Program Collaboration and Service Integration , NCHHSTP White Paper, 2009 U.S. Department of Health and Human Services: Centers for Disease Control and Prevention

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What is PCSI?

Program Collaboration and Service Integration:

A mechanism for organizing and blending interrelated health issues, activities, and prevention strategies to facilitate a comprehensive delivery of services.

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What is PCSI?   *...continued*

PCSI combines 2 approaches for improving health outcomes:

- Program Collaboration

- Service Integration

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What is PCSI? *...continued*

Program Collaboration involves a mutually beneficial, well-defined relationship between two or more programs, organizations, or organizational units to achieve common goals.

Service Integration provides people with seamless comprehensive services from multiple programs without repeated registration procedures, waiting periods, or other administrative barriers.

The 5 Principles of PCSI

The five principles that form the decision-making framework for PCSI are:

- Appropriateness
- Effectiveness
- Flexibility
- Accountability
- Acceptability

Levels of Service Integration for PCSI

PCSI service integration standards:

1. Increase efficiency, reduce redundancy and missed opportunities for prevention and treatment

2. Increase flexibility of responses to evolving epidemics by enabling partners to adapt, implement structural/system changes, update policies, and modify integrated services

3. Increase control over operations by using local information from surveillance, program data, and key performance indicators

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N.C. PCSI Assessment

Assessment should determine:

- Gaps in data

- Procedural barriers to integrating services

- Practice and operational barriers to integrating services

- **Opportunities for collaboration and integration of services**

PCSI Assessment   *…continued*

o PCSI is about collaborating and integrating services where **syndemics** exist.

o What is a "**syndemic**"?

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PCSI Assessment   *…continued*

What is a "Syndemic"?

Syndemic *(noun): Two or more afflictions, interacting synergistically, contributing to excess burden of disease in a population.*

Related concepts:

Linked epidemics,interacting epidemics, connected epidemics, co-occurring epidemics, co-morbidities, and clusters of health-related crises.

http://www.cdc.gov/syndemics/definition.htm; February 28, 2012; Content source: Division of Adult and Community Health, National Center for Chronic Disease Prevention and Health Promotion

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NC PCSI Assessment *…continued*

Finding Syndemics:

○ PCSI Registry match by disease
- Surveillance data sources
  ○ eHARS
  ○ STD MIS
  ○ NC EDSS
- Match criteria
○ Other data sources

TB vs. HIV Registry Match

North Carolina TB vs. HIV Registry Match

				North Carolina	
Year	HIV	TB	Match	% HIV with TB	% TB with HIV
2010	1,487	285	21	1.41%	7.37%
2009	1,628	290	20	1.23%	6.90%
2008	1,712	356	21	1.23%	5.90%
2007	1,798	406	29	1.61%	7.14%
2006	1,642	379	21	1.28%	5.54%
2005	1,806	347	22	1.22%	6.34%
2004	1,636	356	21	1.28%	5.90%
2003	2,073	354	25	1.21%	7.06%
2002	1,687	426	30	1.78%	7.04%
2001	1,521	387	33	2.17%	8.53%
2000	1,467	440	41	2.79%	9.32%
Pre 2000	19,002	3,963	299	1.57%	7.54%
Total	37,459	7,989	583	1.56%	7.30%
Revised*	37,459	7,989	768	2.05%	9.61%

HIV from line list of all cases contained in eHARS

TB from line list of all cases contained in NC EDSS

Matches based on exact match of last name, first name and date of birth

Revised* Totals include additional matches made by hand review of TB Cases in NC EDSS with documented positive HIV status that did not match to HIV cases in the automated comparison. These cases were considered a match based on names, date of birth, SSN or State HIV number but allowed for partial matches.   These additional matches have not been included in the diagnosis year breakout

TB vs. HIV Registry Match

North Carolina PCSI County TB vs. HIV Registry Match

| Buncombe County | | | | | |
Year	HIV	TB	Match	% HIV with TB	% TB with HIV
2010	14	2	0	0.00%	0.00%
2009	20	1	1	5.00%	100.00%
2008	32	12	0	0.00%	0.00%
2007	32	11	0	0.00%	0.00%
2006	21	4	0	0.00%	0.00%
2005	22	4	0	0.00%	0.00%
2004	22	3	0	0.00%	0.00%
2003	25	3	0	0.00%	0.00%
2002	28	4	0	0.00%	0.00%
2001	21	3	0	0.00%	0.00%
2000	38	7	0	0.00%	0.00%
Pre 2000	478	41	2	0.42%	4.88%
Total	753	95	3	0.40%	3.16%
Revised*	753	95	4	0.53%	4.21%

| Pitt County | | | | | |
Year	HIV	TB	Match	% HIV with TB	% TB with HIV
2010	31	7	0	0.00%	0.00%
2009	29	5	1	3.45%	20.00%
2008	34	5	0	0.00%	0.00%
2007	39	16	0	0.00%	0.00%
2006	20	4	0	0.00%	0.00%
2005	37	5	0	0.00%	0.00%
2004	25	6	0	0.00%	0.00%
2003	36	4	1	2.78%	25.00%
2002	50	8	0	0.00%	0.00%
2001	34	13	0	0.00%	0.00%
2000	26	11	1	3.85%	9.09%
Pre 2000	488	153	3	0.61%	1.96%
Total	849	237	6	0.71%	2.53%
Revised*	849	237	8	0.94%	3.38%

| Mecklenburg County | | | | | |
Year	HIV	TB	Match	% HIV with TB	% TB with HIV
2010	312	26	4	1.28%	15.38%
2009	333	29	2	0.60%	6.90%
2008	389	47	4	1.03%	8.51%
2007	390	41	5	1.28%	12.20%
2006	306	60	8	2.61%	13.33%
2005	327	53	4	1.22%	7.55%
2004	351	50	6	1.71%	12.00%
2003	441	48	10	2.27%	20.83%
2002	307	47	11	3.58%	23.40%
2001	251	37	9	3.59%	24.32%
2000	218	69	12	5.50%	17.39%
Pre 2000	3,229	533	104	3.22%	19.51%
Total	6,854	1,040	179	2.61%	17.21%
Revised*	6,854	1,040	239	3.49%	22.98%

| Wake County | | | | | |
Year	HIV	TB	Match	% HIV with TB	% TB with HIV
2010	172	36	3	1.74%	8.33%
2009	184	28	3	1.63%	10.71%
2008	203	35	2	0.99%	5.71%
2007	205	60	6	2.93%	10.00%
2006	188	55	3	1.60%	5.45%
2005	208	40	3	1.44%	7.50%
2004	185	50	3	1.62%	6.00%
2003	225	41	1	0.44%	2.44%
2002	166	56	5	3.01%	8.93%
2001	149	42	3	2.01%	7.14%
2000	154	41	12	7.79%	29.27%
Pre 2000	1,717	260	31	1.81%	11.92%
Total	3,756	744	75	2.00%	10.08%
Revised*	3,756	744	106	2.82%	14.25%

TB vs. HIV by Year of Diagnosis

North Carolina Tuberculosis vs. HIV Registry Matches by Year of Diagnosis

| Year of TB Diagnosis | Year of HIV Diagnosis | | | | | | | | | | | | Total HIV Cases by Year of Diagnosis with TB |
	2010	2009	2008	2007	2006	2005	2004	2003	2002	2001	2000	Pre 2000	
2010	3	0	0	2	1	1	2	0	3	2	1	6	21
2009	0	6	0	1	2	1	1	1	0	1	0	7	20
2008	0	1	5	1	2	1	1	1	2	1	0	6	21
2007	0	0	3	7	3	1	2	1	2	1	1	8	29
2006	0	0	0	1	12	2	2	0	0	0	0	4	21
2005	0	0	0	0	0	6	4	0	0	0	0	12	22
2004	0	0	0	0	0	0	6	3	3	2	0	7	21
2003	0	0	0	0	0	0	0	11	3	1	0	10	25
2002	0	0	0	1	0	0	0	0	14	1	3	11	30
2001	0	0	0	0	0	1	0	0	1	14	2	15	33
2000	0	0	0	0	0	0	0	0	2	2	14	23	41
Pre 2000	0	0	0	1	1	1	0	1	1	2	1	291	299
Total TB Cases by Year Diagnosed with HIV	3	7	8	14	21	14	18	18	31	27	22	400	583

TB Year of HIV Diagnosis	98
TB Prior to HIV Diagnosis	12
TB Year Prior to HIV Diagnosis	8
TB Post HIV Diagnosis	65

NC PCSI Assessment

○ Local Epidemiology
  - One size does not fit all
  - Assist Local Health Departments

N.C. PCSI Plan

○ 4 counties selected as demonstration sites (Buncombe, Mecklenburg, Pitt, Wake)

○ Collaborate with sites on integration of HIV/STD/TB services
  - Provide data and epidemiological support

○ Facilitate integration of services at the county level
  - Treatment guidelines
  - Consultation / Technical Assistance

○ Assess sites' PCSI activity progress, success, barriers, lessons learned and best practices

○ Use evaluation data to inform & implement future statewide policy, care and treatment standards

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N.C. PCSI Goals

o Create a new way of thinking (THINK PCSI)
  o Initiate conversations that look at the big picture, develop ideas and address issues across programs

o Make PCSI a part of your practice

o Identify & develop PCSI models/tools/products
  o Create, share, and incorporate systems that will work directly with a population of interest and provide the highest degree of access and the most effective way to reach the population

o Develop policies that incorporate PCSI concepts
  o To strengthen and build the public health infrastructure

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Questions