Improving Chicago's HIV Care Cascade:

Year 1: Scaling up routine HIV testing
Year 2: Exploring new uses for HIV surveillance data

Chicago Site – Project Summary
November 19th, 2012

Ron Lubelchek, MD
Associate Medical Director
Ruth M. Rothstein CORE Center
Attending Physician, Division of Infectious Diseases
Stroger Hospital of Cook County
Assistant Professor of Medicine
Rush University Medical Center

Nanette Benbow, MS
Director
HIV/STI Surveillance Division
Chicago Department of Public Health
Outline

- **Year 1: scaling up routine testing**
  - Background
  - Aims
  - Methods
  - Results
  - Limitations and conclusions

- **Year 2: enhanced use of surveillance data**
  - Background
  - Aims/methods
  - Timeline
Chicago’s HIV care cascade reveals that approximately 21% of PLWHA are unaware of their diagnosis.
Specific Aims – Year 1

- **Specific Aim 1:** Develop, pilot, and implement a survey to assess provider level knowledge, attitudes, barriers and facilitators to routine HIV testing.

- **Specific Aim 2:** Implement a project focused on scaling up routine HIV testing in three high risk Cook County Health and Hospital System (CCHHS) out-patient specialty clinics.
Methods

- **Phase 1: Survey development**
  - Worked with UIC survey research lab to develop instrument to assess clinicians’ knowledge, attitudes and beliefs with respect to routine HIV testing
  - Also assessed perceived barriers and facilitators to routine HIV testing

- **Phase 2: Survey implementation**
  - Administered survey to providers in 3 specialty clinic/areas
    - Dermatology
    - Psychiatry
    - Trauma
Phase 3: Clinic-specific education sessions

- Trainings developed for each clinic based on survey results and process evaluations

Main outcome: HIV testing rates for patients with unknown HIV status who also had blood drawn.

| Assess pre-intervention testing rates in clinics of interest; Jan-Feb, 2012 | Survey/needs assessment in study clinics; March to May 2012 |
| Process evaluation, focused trainings; May through July | Post-training observation of testing rates; Aug-Oct, 2012 |
Results: survey respondent demographics (N=43)

Clinic:
- Derm: 10
- Psych: 7
- Trauma: 26

Gender:
- Male: 18
- Female: 25

Level of training:
- Attending: 12
- Trainee: 31
Correct knowledge regarding HIV testing guidelines (overall 65% correct)
Attitudes and beliefs overview:

How confident...discussing HIV testing?
- 67% 4 or 5
- 28% 3
- 5% 2

How confident discussing...positive results?
- 40% 2
- 37% 3
- 14% 4 or 5
- 9% 1

How important...testing offered to all patients?
- 79% 4 or 5
- 16% 3
- 5% 2
## Survey results: barriers and facilitators

<table>
<thead>
<tr>
<th>Reasons for not testing?</th>
<th>Barriers to testing?</th>
<th>Desired trainings?</th>
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</thead>
<tbody>
<tr>
<td><strong>Most frequently cited:</strong></td>
<td></td>
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</tr>
<tr>
<td>33% -- I don’t know how to arrange follow-up for positive patients</td>
<td>30% -- I don’t have enough time to explain HIV testing to patients</td>
<td>58% -- more info on HIV test consent rules/policy</td>
</tr>
<tr>
<td>28% -- I’m not confident the patient will return for results</td>
<td></td>
<td>58% more info on how to arrange follow up for patients with positive results</td>
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<tr>
<td><strong>Highest ranked:</strong></td>
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<tr>
<td>26% -- ranked 1\textsuperscript{st} or 2\textsuperscript{nd}: “I’m confident the patient will return for results”</td>
<td>85% -- ranked 1\textsuperscript{st} or 2\textsuperscript{nd}: “I don’t know how to link positive patients to care</td>
<td>83% -- ranked 1\textsuperscript{st} or 2\textsuperscript{nd}: need more info on how to arrange follow-up for newly diagnosed</td>
</tr>
<tr>
<td>58% -- more info on how to arrange follow-up for patients with positive results</td>
<td>71% ranked 1\textsuperscript{st} or 2\textsuperscript{nd}: “I don’t have enough time to explain HIV testing to patients”</td>
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<tr>
<td>83% -- ranked 1\textsuperscript{st} or 2\textsuperscript{nd}: need more info on how to arrange follow-up for newly diagnosed</td>
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</table>
Changes in Routine HIV Testing Patterns over Time by Clinic

- Derm
- Heme
- Psych
- Expon. (Derm)
- Expon. (Heme)
- Expon. (Psych)

p < 0.01 for psych vs. heme over time
p < 0.01 for derm vs. heme over time via poisson regression
Routine HIV testing rates: Stroger ED before/after EMR order prompt activation

Number of patients tested vs. proportion tested for HIV:
- Weekly blood draws
- Weekly HIV tests
- Weekly % tested

Week - Before/After HIV Order Prompt Activation

Lubelchek et al. Poster # TUPE734 at 29th IAS, 2012
## Demographics of Newly Diagnosed HIV Patients and Linkage to Care Status – Stroger Hospital campus, 01/2012 – 10/2012

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Linked to Care &lt; 90 Days</th>
<th>Linked to Care</th>
<th>Not Linked to Care</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=176 Total (N = 176)</td>
<td>139 79%</td>
<td>146 83%</td>
<td>30 17%</td>
<td></td>
</tr>
</tbody>
</table>

### Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Linked to Care &lt; 90 Days</th>
<th>Linked to Care</th>
<th>Not Linked to Care</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male (N = 132)</td>
<td>107 81%</td>
<td>114 86%</td>
<td>18 14%</td>
<td>p = 0.34</td>
</tr>
<tr>
<td>Female (N = 43)</td>
<td>31 72%</td>
<td>31 67%</td>
<td>12 28%</td>
<td></td>
</tr>
<tr>
<td>Transgender (N = 1)</td>
<td>1 100%</td>
<td>1 100%</td>
<td>0 0%</td>
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### Race/Ethnicity

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<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Linked to Care &lt; 90 Days</th>
<th>Linked to Care</th>
<th>Not Linked to Care</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American (N = 130)</td>
<td>95 73%</td>
<td>102 79%</td>
<td>28 22%</td>
<td>p = 0.002</td>
</tr>
<tr>
<td>Hispanic (N = 32)</td>
<td>31 97%</td>
<td>31 97%</td>
<td>1 3%</td>
<td></td>
</tr>
<tr>
<td>White (N = 12)</td>
<td>12 100%</td>
<td>12 100%</td>
<td>0 0%</td>
<td></td>
</tr>
<tr>
<td>Asian (N = 1)</td>
<td>-</td>
<td>0</td>
<td>0 100%</td>
<td></td>
</tr>
<tr>
<td>Other (N = 1)</td>
<td>1 100%</td>
<td>1 100%</td>
<td>0 0%</td>
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</table>
Year 1: Limitations/Conclusions

- Trauma clinic decline in testing
  - Day-to-day run by rotating residents
  - Protocol driven
  - They have not yet initiated protocol incorporating routine testing (trauma clinic with least knowledge of testing guidelines)

- Scalability of intervention?

- Suggests that needs assessment followed by focused training (academic detailing model) model can improve rates of routine HIV testing
Year 2: Background

- Increasingly, HIV surveillance data has been used to improve the clinical care of people living with HIV/AIDS
  - e.g. Health information exchange in Louisiana to help identify and link lost-to-care patients
  - San Francisco department of public health tracking linkage to care for newly diagnosed patients
  - NYDHMH use of surveillance data to monitor engagement in care rates
- We believe Chicago-area PLWHA would benefit from enhanced use of HIV surveillance data for improving provision of clinical care

HIV Continuum of Care Chicago 2010, as of 6/12

- People Living with HIV Aware of Status: 21,077
- Accessed Care: 10,960 (52%)
- Retained in HIV care: 8,987 (43%)
- On ART: 7,639 (36%)
- Virally Suppressed: 6,570 (31%)
Chicago HIV Continuum Goals, as of 6/12

Estimated PLWHA in ehrs + newly aware
Retained in care (Irene excludes diagnoses in retention estimate)
# accessing care at least one time in a year (assuming above %)
On ART***
Virally suppressed***
Unaware of status**
### Year 2

<table>
<thead>
<tr>
<th>Aim 1: Additional analysis of CDPH HIV surveillance data</th>
<th>Method</th>
<th>Outcome</th>
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<tbody>
<tr>
<td></td>
<td>▪ Further analyze CDPH HIV lab surveillance data</td>
<td>▪ Assess changes in linkage to care and engagement in care rates based on varying definitions or parameters of analysis</td>
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<td></td>
<td>▪ Risk factor analysis</td>
<td>▪ Further clarify risk factors for lack of engagement in care</td>
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<table>
<thead>
<tr>
<th>Aim 2: Asses barriers and develop pilot with partnering clinical provider(s)</th>
<th>Method</th>
<th>Outcome</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>▪ Asses barriers to use of HIV surveillance for clinical purposes:</td>
<td>▪ Outcomes from legal consultation</td>
</tr>
<tr>
<td></td>
<td>- Legal consultation</td>
<td>▪ Outcomes from survey of DOH</td>
</tr>
<tr>
<td></td>
<td>- Survey of other DOH</td>
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<tr>
<td></td>
<td>▪ Pilot with clinical provider to query HIV surveillance data to help determine which patients lost to care (triage outreach priorities)</td>
<td>▪ Number of lost-to-care patients included in query to CDPH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>▪ Number determined to be lost-to-care vs. in care elsewhere</td>
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A total of 4810 HIV+ adults were seen at the CORE center in 2010 and 1286 (27%) were not actively engaged in care.
Aim 1: Additional analysis CDPH HIV lab surveillance; Nov-Jan

Aim 2: pilot project; clinic querying surveillance database to improve outreach; Feb to June

**Aim 2: assess barriers to expanded use of surveillance data; Nov to Feb**

**Acknowledgements**

- Daniel Taussig – chief HIV testing advisor, CORE Center
- Luis Lira – HIV testing advisor, CFAR/ECHPP Y1
- Katelynne Finnegan – Project Coordinator, CFAR/ECHPP Y2
- Anna Hotten, PhD – D-CFAR clinical core statistician
- Marisol Gonzalez – Co-investigator for Y1 D-CFAR/ECHPP project
- Karen Kroc, CORE Center co-director of research
- David E. Barker, MD – Medical Director, CORE Center
- Nanette Benbow, MS – Director, HIV/STI Surveillance Division, Chicago Department of Public Health
- David Amarathithada, Director, HIV prevention, STD/HIV/AIDS Division, CDPH
- Chris Brown, MPH, MBA – Former Assistant Commissioner, STD/HIV/AIDS Division, CDPH
- Alan Landay, PhD. – head of Chicago D-CFAR
- Bob Bailey, PhD – co-director, Chicago D-CFAR
- Audrey French, MD – head of D-CFAR clinical core
- Judith Levy, PhD. – head of D-CFAR social & behavioral sciences core