Using Data to BUILD Health

DATA! Fostering Health Innovation in Kentucky and Ohio
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Assessing and Addressing Health

These reports can be found at www.nkyhealth.org.
Smoking Rates Increase in Northern Kentucky

- U.S. smoking rates declining (17.1% in 2017).
- KY smoking rates are 2nd in nation, but declining.
- NKY smoking rates show an increase in 2017.
Deaths Due to Tobacco Use

Imagine FOUR passenger planes full of NKY residents crashing each year.
(counties of Boone, Campbell, Grant and Kenton)

That is the number of deaths in 2017 in FOUR counties.
**BUILD**

**BOLD**  
Local-level data sharing, wide range of strategies involving local community and tracking for replication and expansion into other areas.

**UPSTREAM**  
Development of strategies aimed at changing local tobacco policy with proposed short-term and long-term effects (reduction in smoking-related chronic diseases reducing loss of productivity and burdensome healthcare costs).

**INTEGRATED**  
Integration of services and resources across varying sectors of healthcare and community engagement creating new systems for data sharing and processes for community engagement.

**LOCAL**  
Strategies involve grassroots efforts, experimentation and close community involvement to bring together residents to solve local problems. Data will be captured and used at the neighborhood level to target interventions.

**DATA-DRIVEN**  
Development of data sharing agreements between St. Elizabeth Healthcare and local health departments to provide local data used in analysis for targeted interventions and measurement of achieved objectives. Data agreements can forge relationships for sharing of data surrounding other chronic public health problems.
The Community – Covington, Ky

Dense, Urban
Adult reported smoking rate: 38%
US adult smoking rate: 15%
Goals and Strategies

- Use local data to determine priorities and measure change
- Decrease smoking rates
- Change social norms about indoor air pollution

Through data and community engagement
Using Local Data to Focus Efforts
Data Sharing – Creating an Agreement
With Local Healthcare System (Hospital and Physician Practices)

- Data Sharing Agreement (DSA)
  - Verify clarity report
  - and template match variables from DSA (SEH)
  - Develop EPIC clarity report specifications (SEH)
  - Identify shared folder to house de-identified dataset (SEH)
  - Set-up hosted FTP and provide access to NKY Health (SEH)

- Create data template (NKY Health)
- Identify locked folder to house identifier key and develop protocol to match future datasets
- Pull dataset and place in secure BUILD database at NKY Health
- Prepare dataset for geo-database (NKY Health)
- Process geo-database into heatmaps (NKY Health)
- Analyze heatmaps
<table>
<thead>
<tr>
<th>Disease indicator</th>
<th>ICD-10 code</th>
<th>Description</th>
<th>Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking status</td>
<td>F17.2X</td>
<td>Nicotine dependence</td>
<td>Required</td>
</tr>
<tr>
<td>Secondhand smoke exposure</td>
<td>P04.2X</td>
<td>Newborn affected by maternal use of tobacco</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>P96.81</td>
<td>Exposure to (parental) (environmental) tobacco smoke in the perinatal period</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Z77.22</td>
<td>Contact with and (suspected) exposure to environmental tobacco smoke (acute) (chronic)</td>
<td>Required</td>
</tr>
<tr>
<td></td>
<td>Z81.2X</td>
<td>Family history of tobacco abuse and dependence</td>
<td>Required</td>
</tr>
</tbody>
</table>
| Smoking-related diseases      | J40.XX      | Bronchitis, not specified as acute or chronic  
- Bronchitis: – NOS – Catarrhal  
- With tracheitis NOS  
- Tracheobronchitis NOS | Required |
|                              | J41.XX      | Simple and mucopurulent chronic bronchitis                                  | Required |
|                              | J42.XX      | Unspecified chronic bronchitis  
- Chronic: – Bronchitis NOS – Tracheitis – Tracheobronchitis | Required |
|                              | J43.XX      | Emphysema                                                                    | Required |
|                              | J44.XX      | Other Chronic Respiratory Diseases                                          | Required |
| Asthma                       | J45.XX      | Asthma                                                                       | Required |
| COPD                         | J44.9X      | Chronic obstructive pulmonary disease, unspecified                          | Required |
| Cardiac events               | R09.2X      | Respiratory arrest                                                           | Required |
|                              | I46.9X      | Cardiac arrest, cause unspecified                                           | Required |
|                              | I21.XX      | Acute myocardial infarction                                                  | Required |
|                              | I50.XX      | Heart failure                                                                | Required |
| Lung cancer                  | C34.XX      | Malignant neoplasm of bronchus and lung                                       | Required |
Analysis of Local Health Data

Health care system (hospital and physician practices) data for Covington -2017, 2018
Local Health Data

Local health data was used to focus on specific neighborhoods where smoking rates were highest.
Intervention Strategies
Community Input

- Focus groups at schools in hotspot areas
- Key informant interviews
Mini-Grant Ideas

Mini-Grants include:
Crave Kits, Lollipop Stands, Jar of Tar and Sit to Quit (online class)
Multi-Media Campaigns

Campaign consisted of Posters, Postcards, Flyers and Coupons

http://quitforgoodcovington.org/
Covington Results

Expected:

200 individuals (2% of Covington smokers) would redeem vouchers and attempt to quit smoking

Actual:

1,038 (8%) redeemed vouchers!
Increasing Access to Cessation

Size of circle = number of vouchers redeemed for nicotine replacement therapy (NRT) patches

Color of circle = participating pharmacy
Successes and Lessons Learned

• Over 1,000 quit attempts
• Data sharing agreement with health care system
• Pharmacies as a public health partner
• Community engagement in developing solutions
Sustainability and Continued Work

- Enhanced Pharmacy Services
- Education of policy makers about comprehensive tobacco-free laws and tobacco heritage
- Youth Prevention with focus on electronic cigarettes
The Toll of Northern Kentucky’s Tobacco Use

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