Integrating Lab and Follow-Up Staff
Overview of Newborn Screening

100,000 births in Virginia each year

20,000 infants need follow-up services each year

3,000 clinically diagnosed infants since 1966
Newborn Screening Disorders

- Amino Acid Metabolic Disorders
- Fatty Acid Metabolic Disorders
- Organic Acid Metabolic Disorders
- Galactosemia
- Biotinidase
- Congenital Hypothyroidism
- Congenital Adrenal Hyperplasia
- Cystic Fibrosis
- Sickle Cell Disease
- Severe Combined Immunodeficiencies
Staffing

• **Lab:**
  • Approximately 30 scientists
  • Data Entry
  • Support Staff
  • Leadership

• **Follow-Up:**
  • 4 Follow-Up Nurses
    • Telecommute option
  • Support Staff
  • Leadership
Courier Transportation

• Courier services available 6 days a week across state to 59 hospitals
• Pickup in evening, arrive at laboratory in early AM
• Offer UPS Next-Day service for out of hospital birth providers
Co-Location in Virginia

Background:

• Laboratory and Follow-up staff are under two different agencies

• Physical location about a mile apart
Co-Location in Virginia: Pre-Implementation

Communication:

<table>
<thead>
<tr>
<th>Interface</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Face to Face</td>
<td>Monthly</td>
</tr>
<tr>
<td>Phone</td>
<td>Rarely, as needed</td>
</tr>
</tbody>
</table>
Co-Location in Virginia: Pre-Implementation

Steps Prior to Implementation:

• Evaluate strategies and barriers with implementation

• Evaluate advantages and disadvantages with co-location to move follow-up staff from the Department of Health (VDH) to the laboratory at the Division of Consolidated Laboratory Services (DCLS)
Co-Location in Virginia: Pre-Implementation

Steps Prior to Implementation:

• Multiple meetings with stakeholders including staff and leadership

• Identify workspace for Follow-up staff at laboratory

• Review potential barriers with implementation and identify strategies for resolution
## Co-Location in Virginia: Pre-Implementation

<table>
<thead>
<tr>
<th><strong>Barrier</strong></th>
<th>With move, potential loss of immediate access to resources at VDH (epidemiology, leadership, etc.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Access to Resources</strong></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Solution</strong></th>
<th>Follow-up supervisor maintains presence in both facilities for access to resources and collaboration</th>
</tr>
</thead>
</table>
## Co-Location in Virginia: Pre-Implementation

### Barrier

<table>
<thead>
<tr>
<th>Communication</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing phone numbers for follow-up not transferable to DCLS</td>
<td></td>
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<tr>
<td>Access to electronic medical record on follow-up server at VDH</td>
<td></td>
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</tbody>
</table>

### Solution

<table>
<thead>
<tr>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procure cellular phones for follow-up staff to forward established program phone numbers for seamless communication with stakeholders</td>
</tr>
<tr>
<td>Coordinate remote access with I.T. support</td>
</tr>
</tbody>
</table>
# Co-Location in Virginia: Pre-Implementation

## Barrier

| Parking        | DCLS newborn screening laboratory is approximately 1 mile from VDH |

## Solution

- Transfer parking of follow-up staff to laboratory parking garage
- Secure agency parking spot for Follow-up supervisor at laboratory
## Co-Location in Virginia: Pre-Implementation

<table>
<thead>
<tr>
<th>Processes</th>
<th>Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Obstruction in current workflows with absence of interaction with admin staff</td>
</tr>
<tr>
<td></td>
<td>Fax confirmations print at VDH</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Solution</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Use of intra-office mail, electronic folders, and collaboration with administrative staff for courier</td>
</tr>
<tr>
<td></td>
<td>Setup receipt of digital fax confirmations via secure email</td>
</tr>
</tbody>
</table>
Co-Location in Virginia: One Year Review Survey

Survey Responses: Role In Newborn Screening

- Follow-Up: 5
- Lab: 20
Co-Location in Virginia: One Year Review Survey

Supportive of Co-Location Initiation in February 2017

100% of staff in support
Co-Location in Virginia: One Year Review Survey

Improvement in Overall Communication

- **Yes**: 21
- **No**: 4
Co-Location in Virginia: One Year Review Survey

Number of Times of Intended Face-to-Face Interaction

- 10+ (1)
- 6-10
- 2-5
- 1
- 0

VDH VIRGINIA DEPARTMENT OF HEALTH
Protecting You and Your Environment
Improvement in Overall Communication

- Yes: 21 responses
- No: 4 responses
Co-Location in Virginia: One Year Review Survey

Improved Formal Communication

- Yes: 17, 68%
- No: 8, 32%
Co-Location in Virginia: One Year Review Survey

Improved Informal Communication

4, 15%

22, 85%

Yes  No
Co-Location in Virginia: One Year Review Survey

Improved Operations

23, 92%

Yes

2, 8%

No
Co-Location in Virginia: One Year Review Survey

Improved Engagement

100% from Follow-Up

Yes  No

20, 80%

5, 20%
I enjoy having the nurses on site.

I can easily transfer a call or run upstairs to ask them a question.

It is also nice to get to know each personally.

I feel like we are all part of the same team.

It would be beneficial to eventually have the entire Follow-up team co-located
Co-Location in Virginia: Outcomes

<table>
<thead>
<tr>
<th>Co-location Strengths</th>
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</thead>
<tbody>
<tr>
<td>Improves communication around reporting newborn screening results</td>
</tr>
<tr>
<td>Frequent face-to-face interaction</td>
</tr>
<tr>
<td>Faster resolution of problems (i.e. data entry discrepancy, question regarding follow-up recommendation)</td>
</tr>
<tr>
<td>Novel informal communication</td>
</tr>
<tr>
<td>Improves understanding/linkage of broader newborn screening program</td>
</tr>
<tr>
<td>Increases learning opportunities</td>
</tr>
<tr>
<td>Improves engagement of follow-up staff</td>
</tr>
</tbody>
</table>
Co-Location in Virginia: Outcomes

<table>
<thead>
<tr>
<th>Co-location Challenges</th>
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<tbody>
<tr>
<td>Added expense for second location (hardware, rent, IT support)</td>
</tr>
<tr>
<td>Co-location may result in loss of resources</td>
</tr>
<tr>
<td>Increases demand on follow-up supervisor to maintain presence in multiple locations</td>
</tr>
<tr>
<td>Co-location does not guarantee improved communication</td>
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</table>
### Co-Location in Virginia: Recommendations

<table>
<thead>
<tr>
<th>Recommendation</th>
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<tr>
<td>Allow time to plan for barriers and solutions for seamless integration</td>
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<tr>
<td>NBS programs not able to co-locate should implement regular meetings and consider utilization of video conferencing to imitate face-to-face interaction.</td>
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Co-Location in Virginia: Next Steps

| Continue to work on communication and face-to-face interaction |
| Utilize co-location to initiate notification of unsatisfactory samples more quickly |
www.NewbornScreeningEducation.org

Newborn Screening Education Offers 4 Online Learning Opportunities

Critical Congenital Heart Disease Screening

Approximately 1 in 100 infants is born with some type of congenital heart disease (CHD). Some forms of CHD cause little or no problems, but other forms, referred to as critical congenital heart disease (CCHD), present a significant risk of morbidity or mortality if not diagnosed soon after birth. To identify those infants at risk, all infants should be screened using pulse oximetry prior to discharge from the nursery. This educational module offers evidence-based content for healthcare providers on the identification and implications of CCHD, assistance in establishing a screening program, and resources for helping parents understand the testing process and results.

Newborn Dried Blood-Spot Screening

Newborn Screening is a public health activity used for early identification of infants affected by certain genetic, metabolic, hormonal and/or functional conditions. Screening detects disorders in newborns that, if left untreated, can cause serious illness, disability, and even death. Currently, the U.S. Department of Health and Human Services recommends screening for 29 heritable disorders and genetic diseases performed through dried blood-spot screening.

SCID: This module now includes learning content on Severe Combined Immunodeficiency Disorder (SCID). This rare group of inherited disorders is almost always fatal but can be successfully treated if detected early.
Contact Information

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