PCM#5: IMPROVING EXCLUSIVE BREASTFEEDING RATES ACROSS A HOSPITAL SYSTEM

Allina Health Mother Baby Clinical Service Line

Katie Foag, MPH
Jesse Hennum, MD
Kris Scott, RNC, BSN, IBCLC

Objectives

• Review the background of the Allina Exclusive Breastfeeding Project

• Understand challenges of enacting culture change in multiple hospitals across the region

• Learn advantages and resources of a healthcare system for tracking and analysis

• Understand unique challenges of improving breastfeeding across multiple different demographic and cultural environments
“Macro” approach: Health system vs. hospital

- 68,000 infants born in MN in 2010
- 14,000*/yr in Allina hospitals ~18% (*River Falls, WI)
- In 2014: 6.9% of births in US occur in Baby Friendly facilities
- Healthy People 2020 goal is 8.1%
- 99.9% of US hospitals will be baby friendly by 2079

---

It all began...

- Allina Advanced Training Program  Spring 2012
  - Based on the Intermountain Model
  - Meant to support the Triple Aim

  **Aim- To Increase Rate of Exclusive Breastfeeding in Healthy Newborns While Hospitalized**

- Team of MD, Allina RN and Children’s RN
- Supported by Performance Improvement and Data Analysis Teams
- Utilized the typical Quality Improvement Model
- Conclusion: education the best intervention
Pilot project: Two hospitals

- Interventions:
  - Patient education handouts
  - Nursing education – online learning management system
  - Enhanced EMR data about breastfeeding – reasons why formula given

- Achieved goal to increase by relative 10%

Project Spread Across System

- Expanded pilot interventions system wide
  - Mandatory nursing education to all Allina OB Units
  - Patient Educational handouts to all clinics and OB Units
  - Monthly outcomes report to hospital leadership

- Obtained more information
  - Site visit presentations to providers at all 10 sites
  - Collected feedback
  - Analyzed data, identified themes
From the analysis

- **Recent creation of toolkit for each site**
  - Individualized for each hospital
  - 3 suggested interventions for each hospital to use
  - Assigned sites to create 30-60-90 day action plan

- **Common theme- cultural and language barriers**
  - Partnered with ECHO Minnesota to create videos in multiple languages

---

**Allina’s Exclusive Breastfeeding Rates**

![Graph showing exclusive breastfeeding rates over time]

*Exclusive Breastfeeding Rate, Allina Overall*
Advantages of a Health System

Allina’s Exclusive Breastfeeding Rates

Exclusive Breastfeeding Rate, Allina Overall

* Lines represent statistical process control limits (D.J. Wheeler)
Technical advantages

- Single team: 10 hospitals
- Barriers to success often very similar between sites
- Collective financial resources makes funding for larger projects possible
- Electronic Medical Record
- System wide policies and procedures
- Data analysis
- Patient educational materials: Handouts, website, mobile app

Data Driven Approach

All sites’ patient data into EMR

Data Warehouse containing patient data from:
- EMR
- Registries
- Lab
- Etc

Clinical Outcome

Clinicians Analytics

Quality Improvement

System Office
- Data Architects
- Data Analysts
- Report Writers
## Scheduled and On-Demand Reports

<table>
<thead>
<tr>
<th>Newborn Court</th>
<th>Exclusive Breastfeeding</th>
<th>Intent to Breastfeed at Admission</th>
<th>Intent to Breastfeed and Exclusive Breastfeeding</th>
<th>Breastfeeding First Feeding</th>
<th>Breastfeeding Last Feeding</th>
<th>Slim to Slim First Hour</th>
<th>Breastfeeding First Hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>328</td>
<td>53.7% (176)</td>
<td>80.8% (265)</td>
<td>61.9% (164/265)</td>
<td>80.8% (254)</td>
<td>72.6% (238)</td>
<td>82.9% (272)</td>
<td>74.7% (245)</td>
</tr>
<tr>
<td>58</td>
<td>55.3% (33)</td>
<td>61.1% (54)</td>
<td>55.6% (53/104)</td>
<td>96.6% (56)</td>
<td>74.1% (43)</td>
<td>84.5% (40)</td>
<td>75.9% (44)</td>
</tr>
<tr>
<td>32</td>
<td>65.6% (21)</td>
<td>78.1% (25)</td>
<td>72.0% (16/25)</td>
<td>87.5% (28)</td>
<td>75.0% (24)</td>
<td>93.8% (20)</td>
<td>78.1% (25)</td>
</tr>
<tr>
<td>142</td>
<td>34.5% (40)</td>
<td>64.1% (91)</td>
<td>47.3% (43/91)</td>
<td>76.3% (76)</td>
<td>53.5% (76)</td>
<td>78.3% (111)</td>
<td>57.6% (38)</td>
</tr>
<tr>
<td>74</td>
<td>45.8% (11)</td>
<td>50.3% (14)</td>
<td>71.4% (104)</td>
<td>83.3% (20)</td>
<td>62.5% (15)</td>
<td>70.8% (17)</td>
<td>37.5% (8)</td>
</tr>
<tr>
<td>42</td>
<td>61.9% (26)</td>
<td>78.6% (33)</td>
<td>72.7% (243)</td>
<td>85.7% (36)</td>
<td>76.6% (33)</td>
<td>83.3% (35)</td>
<td>81.0% (34)</td>
</tr>
<tr>
<td>10</td>
<td>80.0% (8)</td>
<td>100.0% (10)</td>
<td>80.0% (8/10)</td>
<td>100.0% (10)</td>
<td>100.0% (10)</td>
<td>80.0% (8)</td>
<td>60.0% (8)</td>
</tr>
<tr>
<td>110</td>
<td>54.5% (71)</td>
<td>83.5% (82)</td>
<td>70.1% (70/82)</td>
<td>88.2% (87)</td>
<td>79.1% (87)</td>
<td>80.1% (88)</td>
<td>77.3% (85)</td>
</tr>
<tr>
<td>234</td>
<td>50.9% (119)</td>
<td>69.7% (153)</td>
<td>63.2% (103/153)</td>
<td>82.9% (196)</td>
<td>67.9% (196)</td>
<td>88.5% (237)</td>
<td>79.2% (193)</td>
</tr>
<tr>
<td>99</td>
<td>42.4% (42)</td>
<td>70.7% (70)</td>
<td>52.9% (37/70)</td>
<td>70.6% (70)</td>
<td>60.6% (60)</td>
<td>91.8% (81)</td>
<td>92.0% (80)</td>
</tr>
<tr>
<td>1,079</td>
<td>51.4% (550)</td>
<td>75.7% (817)</td>
<td>62.1% (557/817)</td>
<td>85.5% (820)</td>
<td>69.0% (710)</td>
<td>84.2% (898)</td>
<td>73.1% (789)</td>
</tr>
</tbody>
</table>

---

**Allina Health Pregnancy homepage**

http://www.allinahealth.org/pregnancy
Mobile App (Free on the App Store!)

- How to get off to a good start
- Breastfeeding
- Breastfeeding basics
- Breastfeeding positions
- How to tell if your baby is getting
- Common issues
- Expressing and storing breast m
- Special circumstances
- Breastfeeding in public
- Weaning
- Formula feeding

Recline hold
- Lie on your back, supported by pillows.
- Position your baby so she is tummy-to-tummy on your stomach. Her head should be between your breasts. Gently guide her to your breast while supporting her bottom with your hand.

ADAPTIVE/CULTURAL ADVANTAGES
Adaptive/Cultural advantages

• Competition!

Exclusive Breastfeeding Rate, 2013 by Hospital

Adaptive/Cultural advantages

• Learn from others’ success
• Being an outsider is often an advantage
• The selling point of high level data analysis

Exclusive Breastfeeding Rates, 2013

* % < 10 at hospital
CHALLENGES

Technical challenges

- 10 hospitals separated by up to 137 miles
- Small team!
- Barriers to success often vastly different
- Multiple provider systems or leadership structures
- Communication
- Limitations of data
Adaptive/Cultural challenges

- One size fits all approach – hospital cultures are very different
- Representing the “corporate HQ"
- Cannot reach most stakeholders
- Finding champions at each site

Conclusions

- Think big!
- Learn from the high performers
- Meeting in person is complex to arrange, but may pay off
- This is not a foley catheter project
- Repeated exposure leads to continued inspiration
- Need the consistent support of system leadership as well as hospital leadership

Questions?
Katherine.Foag@allina.com
Jesse.Hennum@allina.com
Kris.Scott@allina.com