



# Project IMPACT: Immunizations

*IMProving America's Communities Together*

---

AIRA NATIONAL MEETING ▪ SALT LAKE CITY, UT ▪ AUGUST 15, 2018

BENJAMIN BLUML, RPH

AMERICAN PHARMACISTS ASSOCIATION FOUNDATION  
SENIOR VICE PRESIDENT, RESEARCH AND INNOVATION

## Innovative Practice Model Designs with Consistently Improved Outcomes

- ✓ Adherence
- ✓ Diabetes
- ✓ Hypertension
- ✓ Alzheimer's
- ✓ Depression
- ✓ Osteoporosis
- ✓ Hyperlipidemia

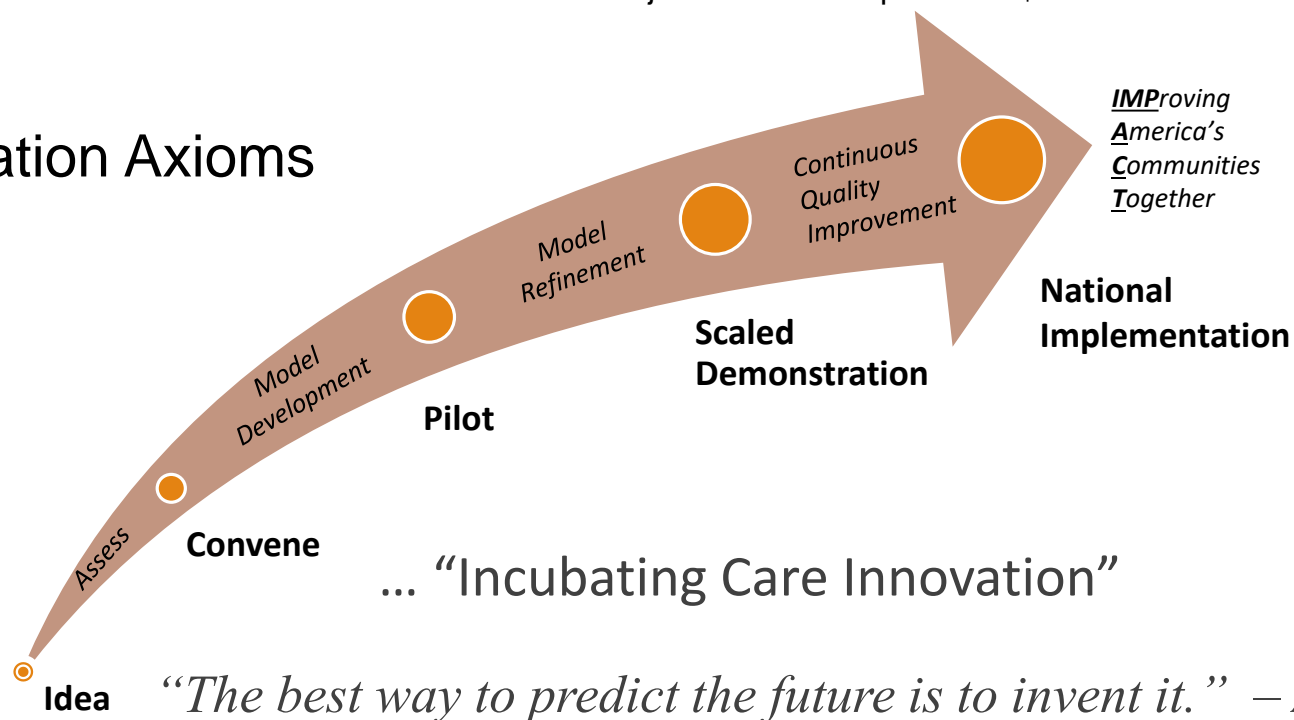
- The Asheville Project: \$1,622 - \$3,356
- Patient Self-Management Program: \$918
- Diabetes Ten City Challenge: \$1,079
- Project ImPACT: Depression: \$983

## Our Research and Innovation Axioms

*Do the right things well.*

*Structure. Process. Outcomes.*

*Align the Incentives,  
Improve the Outcomes,  
Control the Costs.*



# Where we're going... Best way to get there...

---

Empowered patients

Increased collaboration

Enhanced safety

Improved outcomes

Reduced costs

Put patients first

Optimize medication use

Improve communication

Manage information

Increase collaboration

***“Interdisciplinary care is the best way to invent a preferred future in healthcare.”***

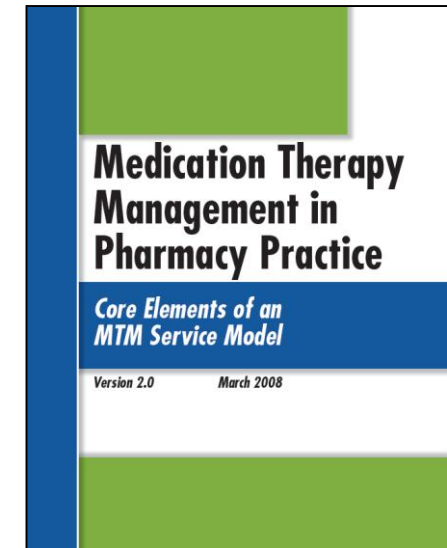
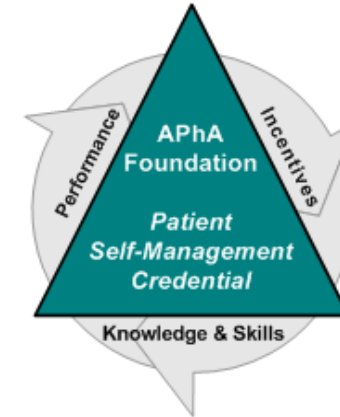
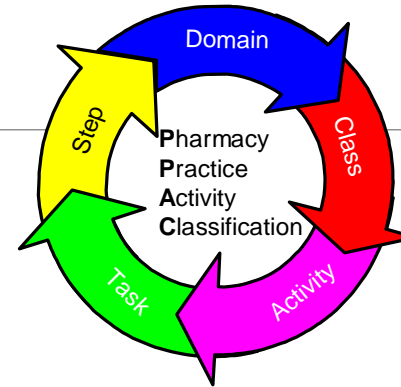
# Our Research and Innovation

## 20+ Years of Imagining What is Possible...

---

- 1996 – Point-of-Care testing in community pharmacies?
- 1999 – At-risk screening, identification, and referral?
- 2004 – 11 National Pharmacy orgs agree on MTM?
- 2006 – Monitoring depression status qualitatively?
- 2009 – Home BP/Activity monitoring for hypertension?
- 2010 – Translate employer successes to underserved?
- 2014 – 3D printing of customized medications at POC?
- 2016 – Arming providers with registry data at POC?
- 2017 – Process workflow optimizations for prevention?
- 2018 – PGx decision making integrated into MTM?
- Cholestech LDXs / Point-of-Care testing now across US
- HRAs, practice level screenings commonly used now
- Definition in Federal regulations, MTM is a standard
- PHQ-9 / PHQ-2 assessments now frequently utilized
- Enhanced accountability and discovery in patient care
- Evidence that individualized, team-based care works
- Proof of concept / FDA approval for printing tablets
- Improved identification/resolution of unmet needs
- Federally supported model in multi-state/year grant
- Active work on resources w/PGx to enhance safe use

# Creating the Basis for a Preferred Future



# Advancing Service Delivery in Pharmacy Practice

## ***Health Promotion***

- Health Risk Assessment
- Immunizations
- Oral Health
- Wellness Programs

### ***Selection Criteria:***

- *High prevalence*
- *High risk*
- *High cost*
- *Problem prone*

## ***Health Management***

- Asthma
- Cardiovascular Disease  
(Dyslipidemia, Hypertension)
- Coagulation Disorders
- Congestive Heart Failure
- Depression
- Diabetes
- Osteoporosis

*...all with MTM*

# Interdisciplinary Practice Innovation Needed to Impact Vaccination Rates

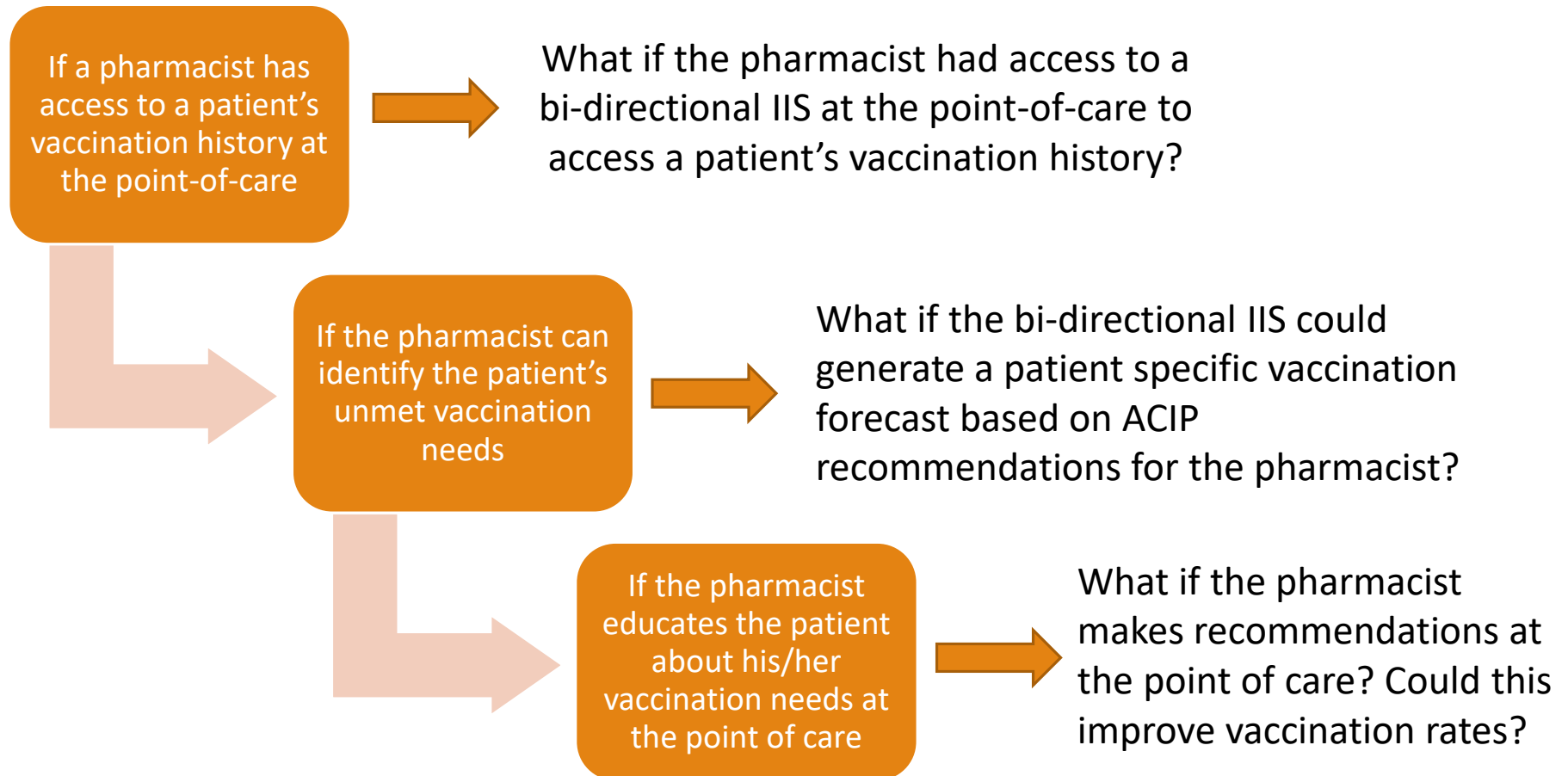
Vaccination Coverage Among U.S. Adults			
Vaccine	Age Stratification	Coverage Rate*	HP 2020 Goal**
Pneumococcal	≥65 years	61.3%	90%
Tdap	≥19 years	20.1%	Not Set
Hepatitis A	≥19 years	9%	Not Set
Hepatitis B	≥19 years	24.5%	Not Set
Herpes Zoster	≥60 years	27.9%	30%
HPV	Females 19-26 years	40.2%	80%
HPV	Males 19-26 years	8.2%	80%

\*MMWR Surveill Summ 2016;65(No. SS-1):1–36. DOI: <http://dx.doi.org/10.15585/mmwr.ss6501a1>

\*\*Healthy People 2020 Goals (presented where set by the United States Public Health Service)

# Imagining What Might Be Possible

## *...Project IMPACT: Immunizations*





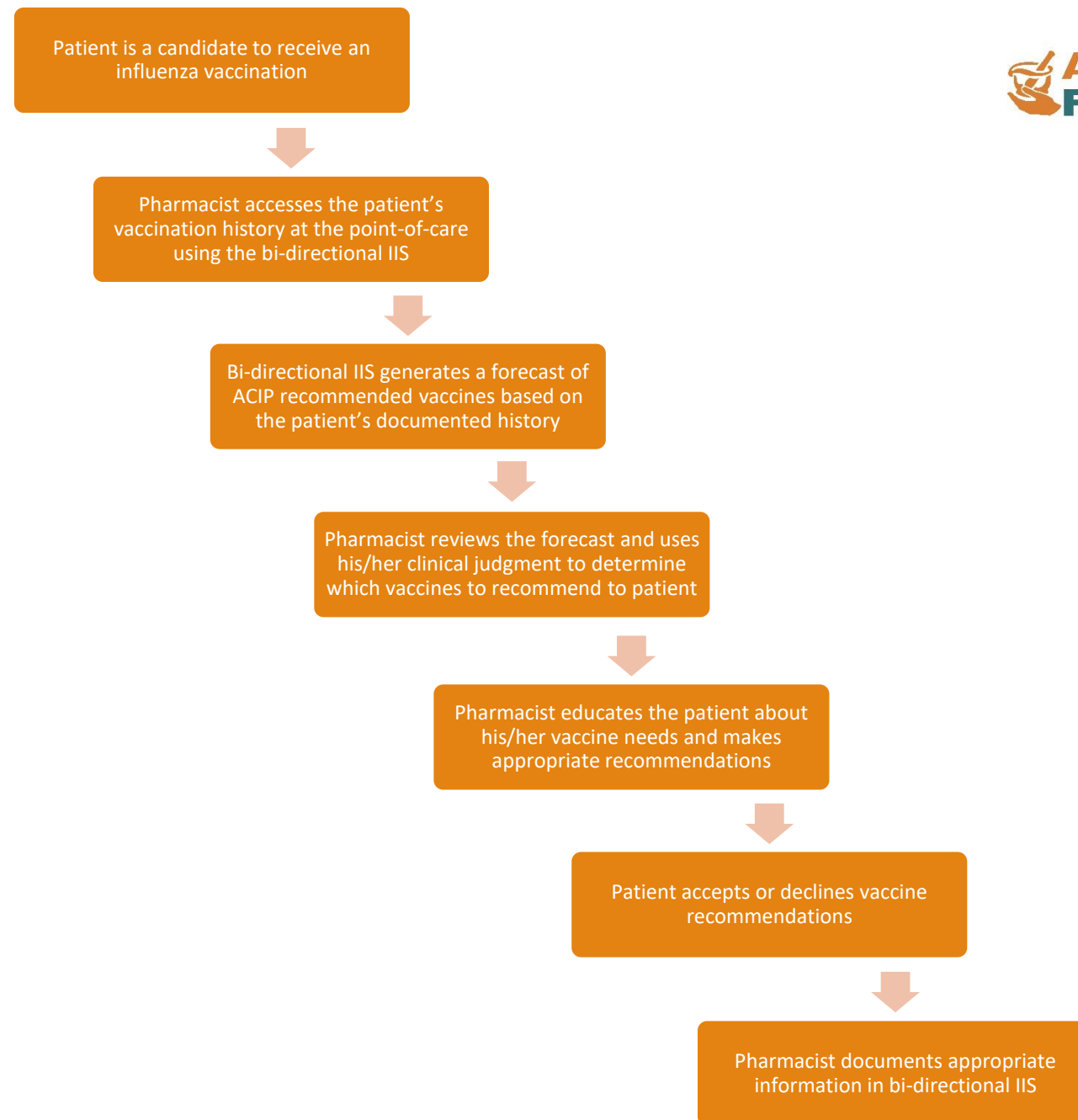
# Project IMPACT: Immunizations

## Innovative Care Model

## Process of Care

### Key Components of the Model:

- ✓ Access to patient vaccination history at the point-of-care
- ✓ Forecast of patient-specific unmet vaccination needs
- ✓ Pharmacist assessment of forecast from technology
- ✓ Ability to document directly in state IIS



# Project IMPACT Immunizations Pilot

## *Results*

---

### Primary Objective

- To evaluate how implementing an innovative care model that provides the pharmacist access to a patient's vaccine history at the point-of-care impacts the pharmacist's ability to identify unmet vaccination needs and increase vaccination rates for routinely recommended adult vaccinations

### Pharmacy Practice Sites

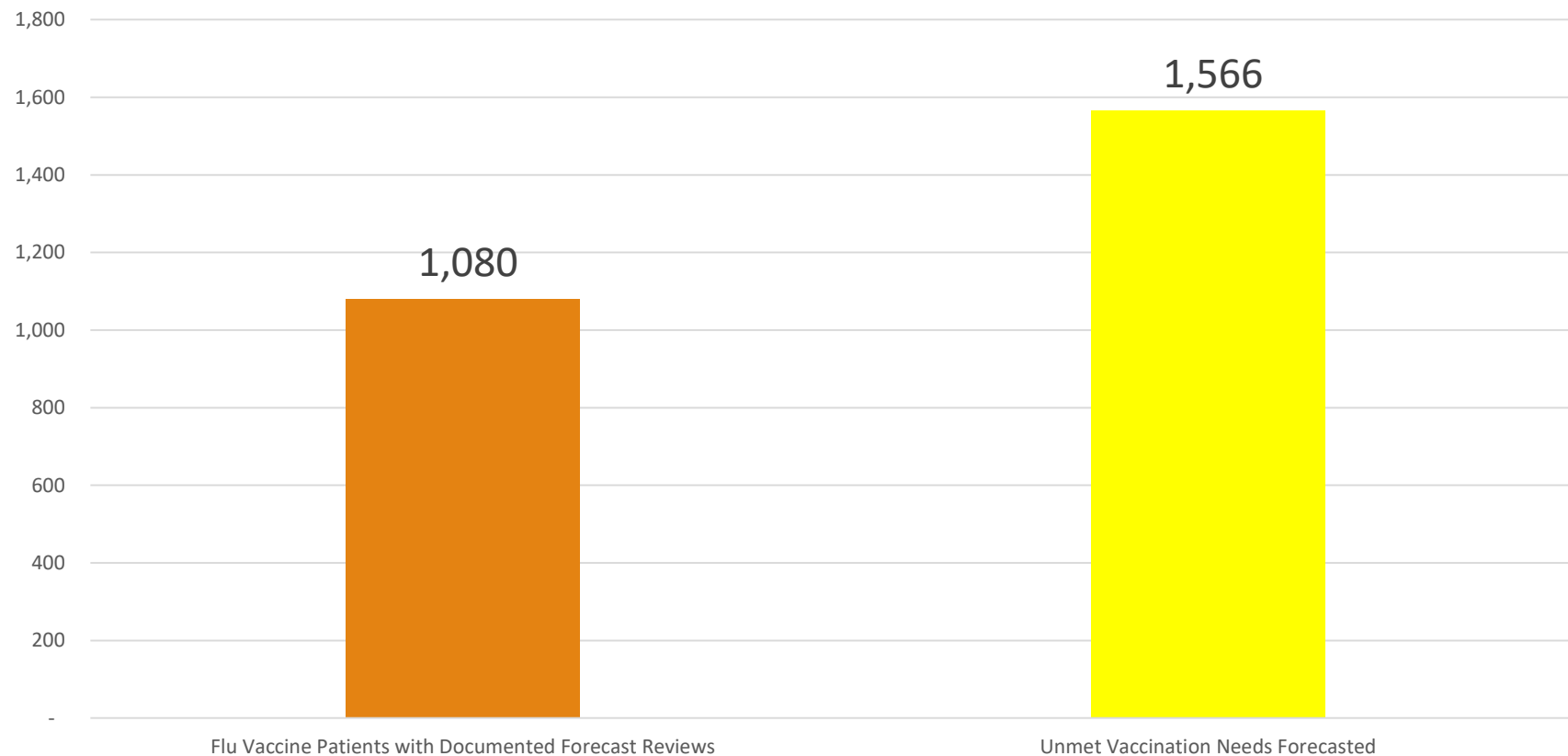
- 2 Chain, Food/Pharmacy Practices (Belfair, Edmonds)
- 4 Independent, Community Practices (Cheney, Eatonville, Lopez Island, Yakima)
- 2 Specialty, Community Practices (Seattle, Spokane)



### Patient Enrollment

- Began October 22, 2015 and concluded March 22, 2016
- 1,080 patients receiving influenza vaccines + forecast reviews + patient education
- Final results published online in *Population Health Management*

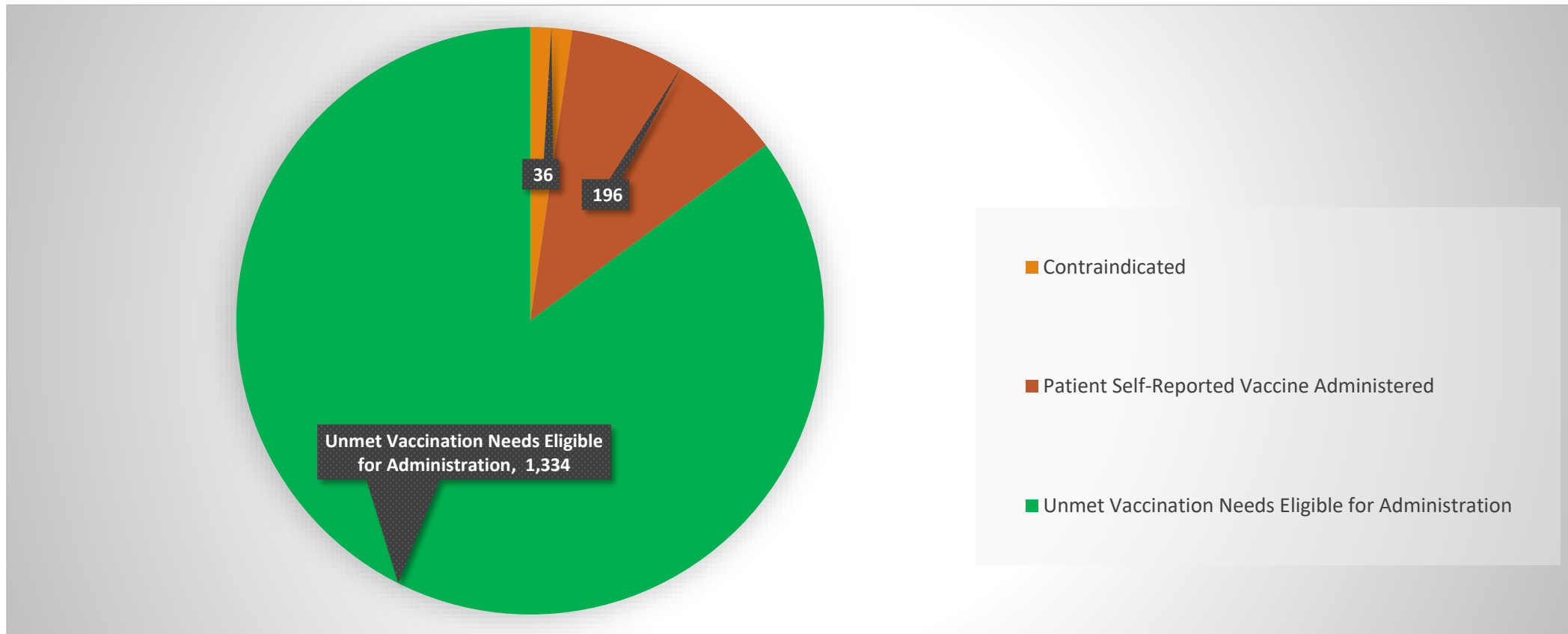
# Project IMPACT Immunizations Pilot Results: Number of Unmet Vaccination Needs Forecasted



There were an average of 1.45 additional vaccines forecast as being due for each patient who requested an influenza vaccination

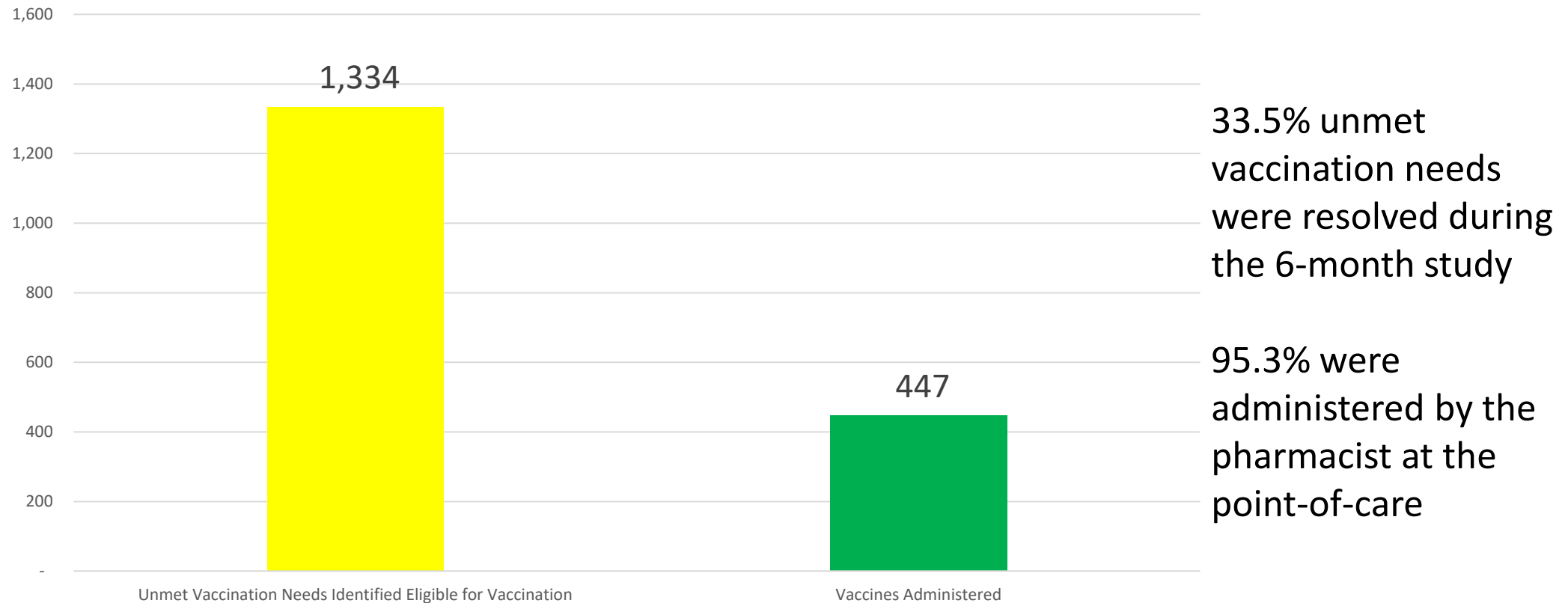
*Population Health Management* (available online; DOI: 10.1089/pop.2017.0049, June 2017)

# Project IMPACT Immunizations Pilot Results: Distribution of Forecasted Unmet Vaccination Needs



*Population Health Management* (available online; DOI: 10.1089/pop.2017.0049, June 2017)

# Project IMPACT Immunizations Pilot Results: Number of Unmet Vaccination Needs Resolved



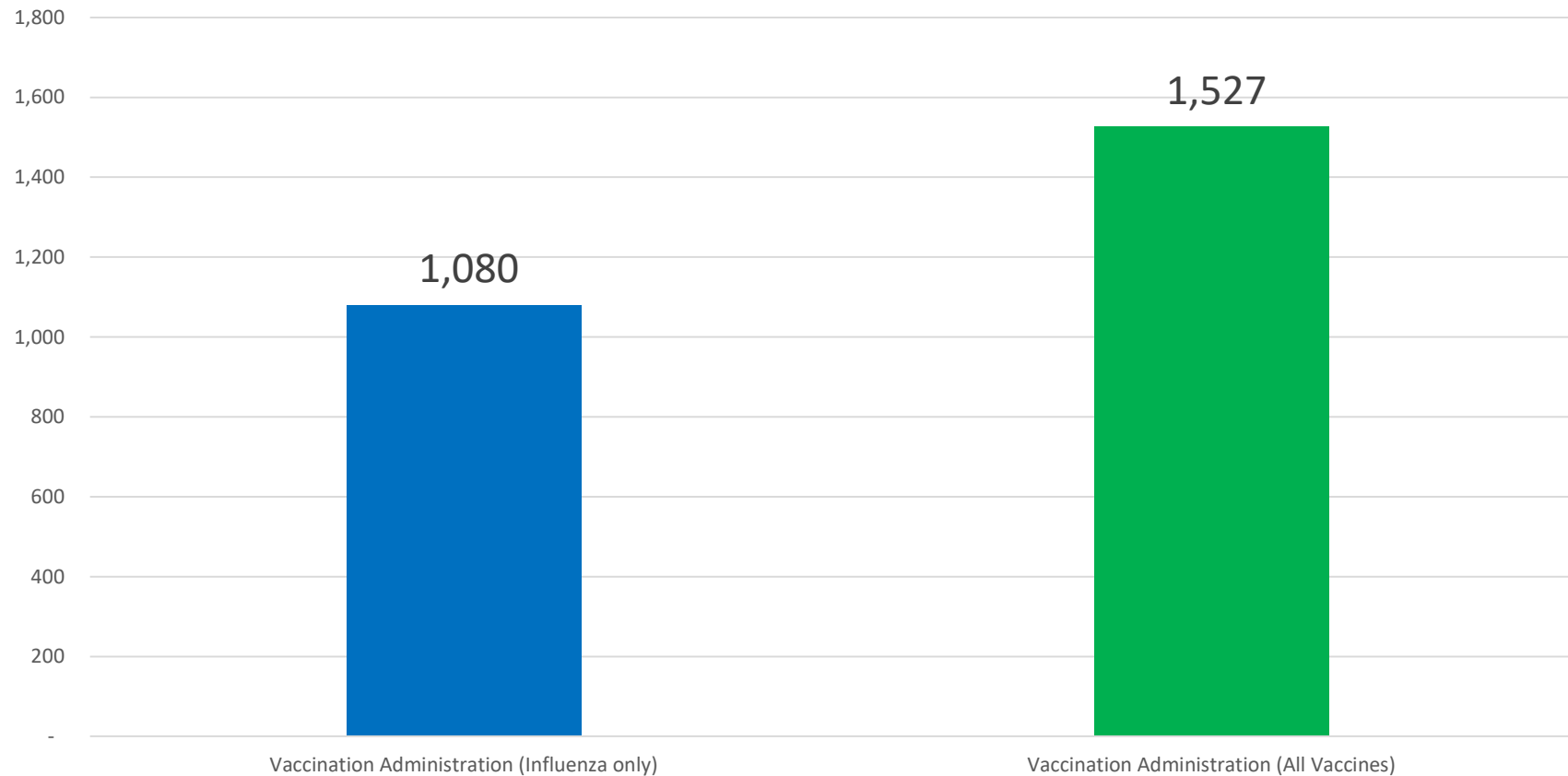
*Population Health Management* (available online; DOI: 10.1089/pop.2017.0049, June 2017)

## Eligible Unmet Vaccination Needs Identified and Met During Study

Vaccine Type	# of Unmet Needs Eligible for Vaccine	# of Unmet Needs Resolved During 6-month Study Period	# of Additional Vaccines Administered by Pharmacist at Point-of-Care (%)	# of Additional Vaccines Administered at Follow-up Visit (%)
Pneumococcal - PCV	409	266 (65.0)	256 (96.2)	10 (3.8)
Pneumococcal - PPSV	14	4 (28.5)	4 (100)	0 (0)
Tdap	483	104 (21.5)	98 (94.2)	6 (5.8)
Herpes Zoster	309	65 (21.0)	60 (92.3)	5 (7.7)
HPV	16	1 (6.25)	1 (100)	0 (0)
Hepatitis A	63	4 (6.35)	4 (100)	0 (0)
Hepatitis B	39	3 (7.69)	3 (100)	0 (0)
MMR	1	0 (0)	0 (0)	0 (0)
<b>Totals =</b>	<b>1,334</b>	<b>447 (33.5)</b>	<b>426 (95.3)</b>	<b>21 (4.7)</b>

*Population Health Management* (available online; DOI: 10.1089/pop.2017.0049, June 2017)

# Number of Vaccinations Administered (Influenza vs. All Vaccines)



As a result of using the innovative process of care, the number of vaccines administered increased by 41.4%

*Population Health Management* (available online; DOI: 10.1089/pop.2017.0049, June 2017)

## Conclusion: Project IMPACT Immunizations – *Pilot*

The Project IMPACT Immunizations innovative practice model enabled pharmacists to conduct comprehensive vaccination history reviews at the point-of-care, which allowed them to:

- Identify a significant number of unmet vaccination needs
- Educate patients about their vaccination needs
- Increase the number of vaccines administered
- Improve vaccination rates for routinely recommended adult vaccinations

We need to continue exploring how to successfully integrate and sustain streamlined principle-centered processes of care that allow pharmacists and other health care providers to utilize actionable point-of-care data to effectively engage and educate patients to improve vaccination rates



# Results Infographic

## Project IMPACT Immunizations – Pilot








# Project IMPACT Immunizations

## IMP

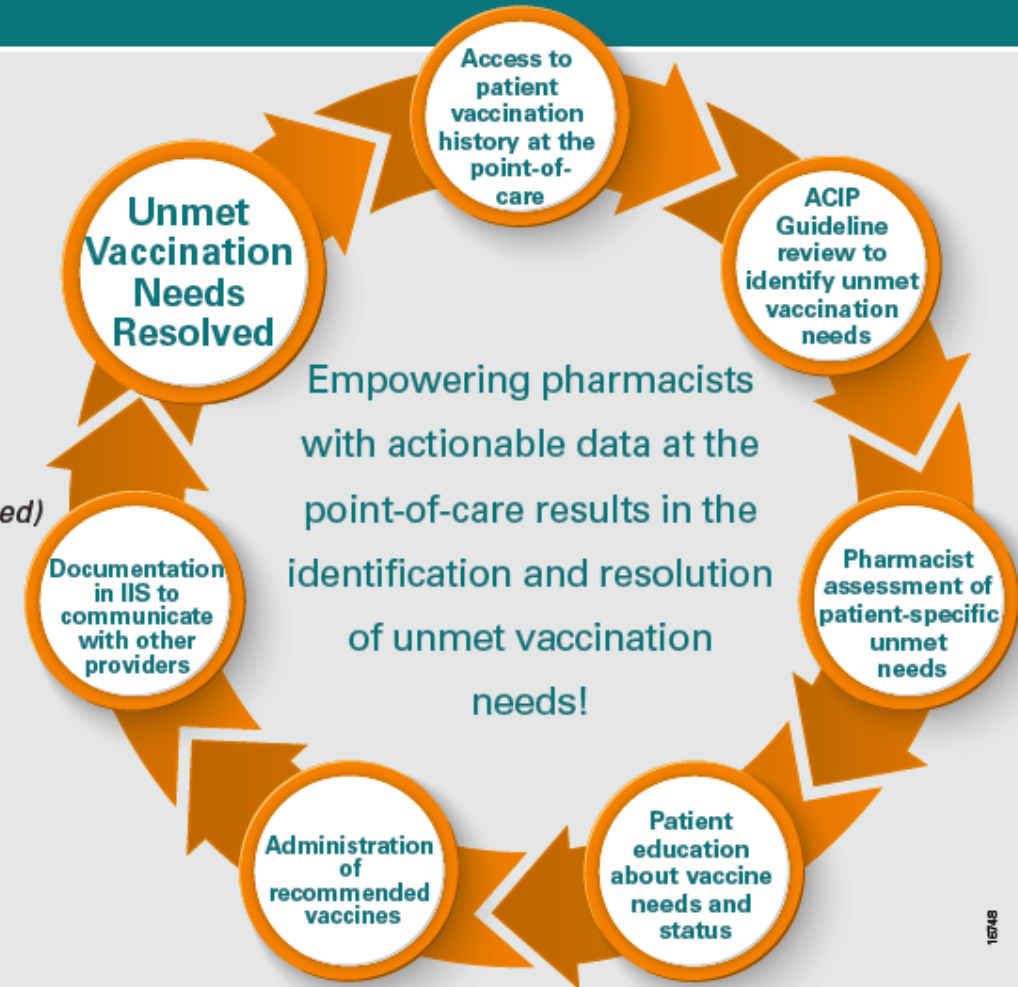
roving America's Communities Together

by addressing gaps in vaccination coverage that pose a significant risk to public health

-  **1,080 patient histories** of vaccinations reviewed
-  **1,566 vaccines forecasted** as due based on IIS
-  **1,334 unmet needs** eligible for vaccination  
(36 contraindications, 196 potential duplications discovered)
-  **41.4% administration increase** in number of vaccines
-  **447 unmet needs addressed** and documented in IIS



Copyright © 2017, APhA Foundation. All Rights Reserved.



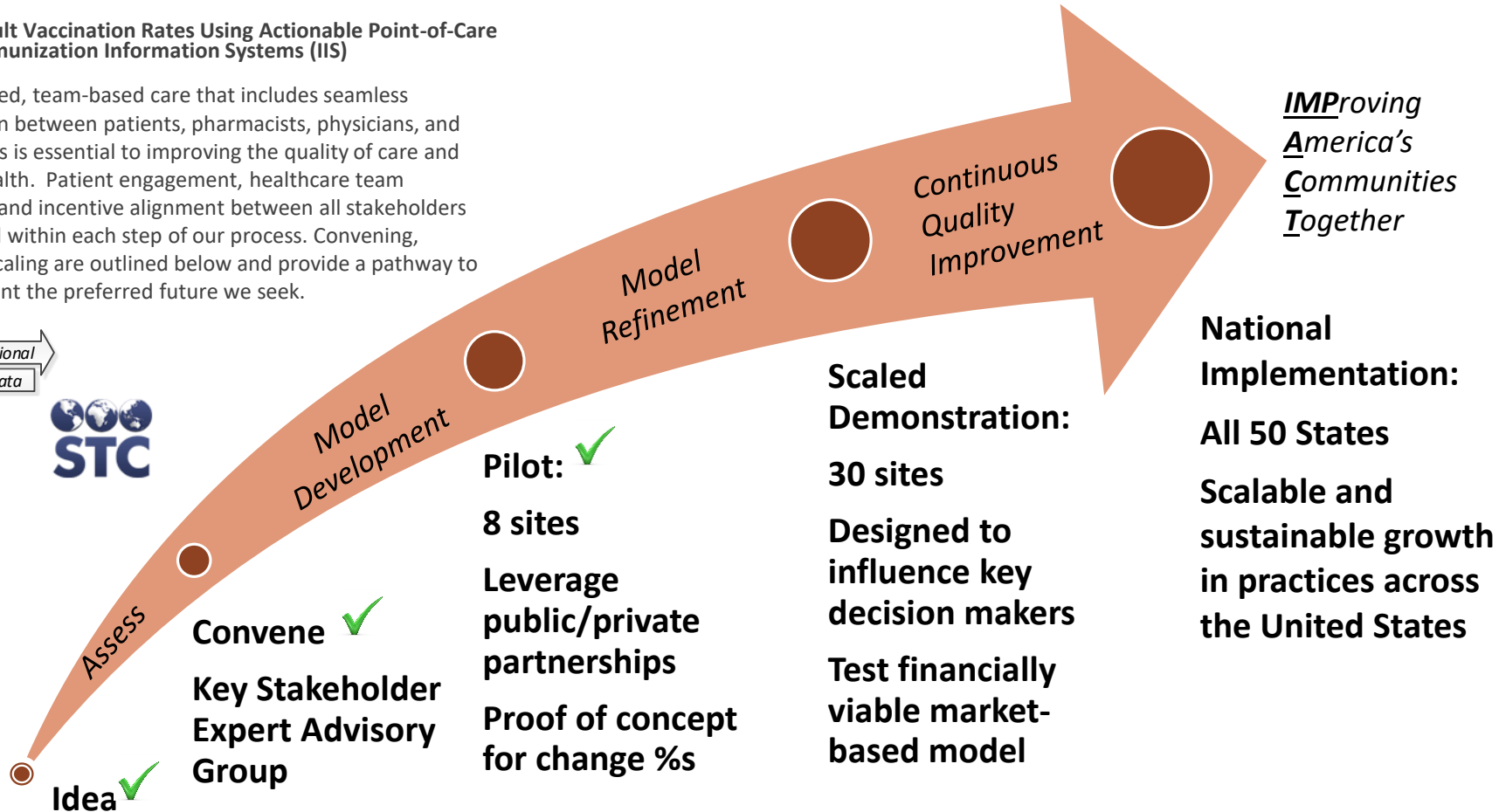
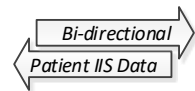
16748

# IMPACT Immunizations – Next Phase...

## ... Addressing Population Health for Preventable Diseases

### Increasing Adult Vaccination Rates Using Actionable Point-of-Care Data from Immunization Information Systems (IIS)

Patient-centered, team-based care that includes seamless communication between patients, pharmacists, physicians, and other providers is essential to improving the quality of care and population health. Patient engagement, healthcare team collaboration, and incentive alignment between all stakeholders are considered within each step of our process. Convening, piloting, and scaling are outlined below and provide a pathway to help us all invent the preferred future we seek.



# IMPACT Immunizations – *Next Phase... by the Numbers*

- 280,000+ practicing pharmacists trained to immunize
- 397,000+ pharmacy technicians that provide support
- 301+ million visits to community pharmacies every 7 days in U.S.

➤ Healthy People 2020 Statistics:

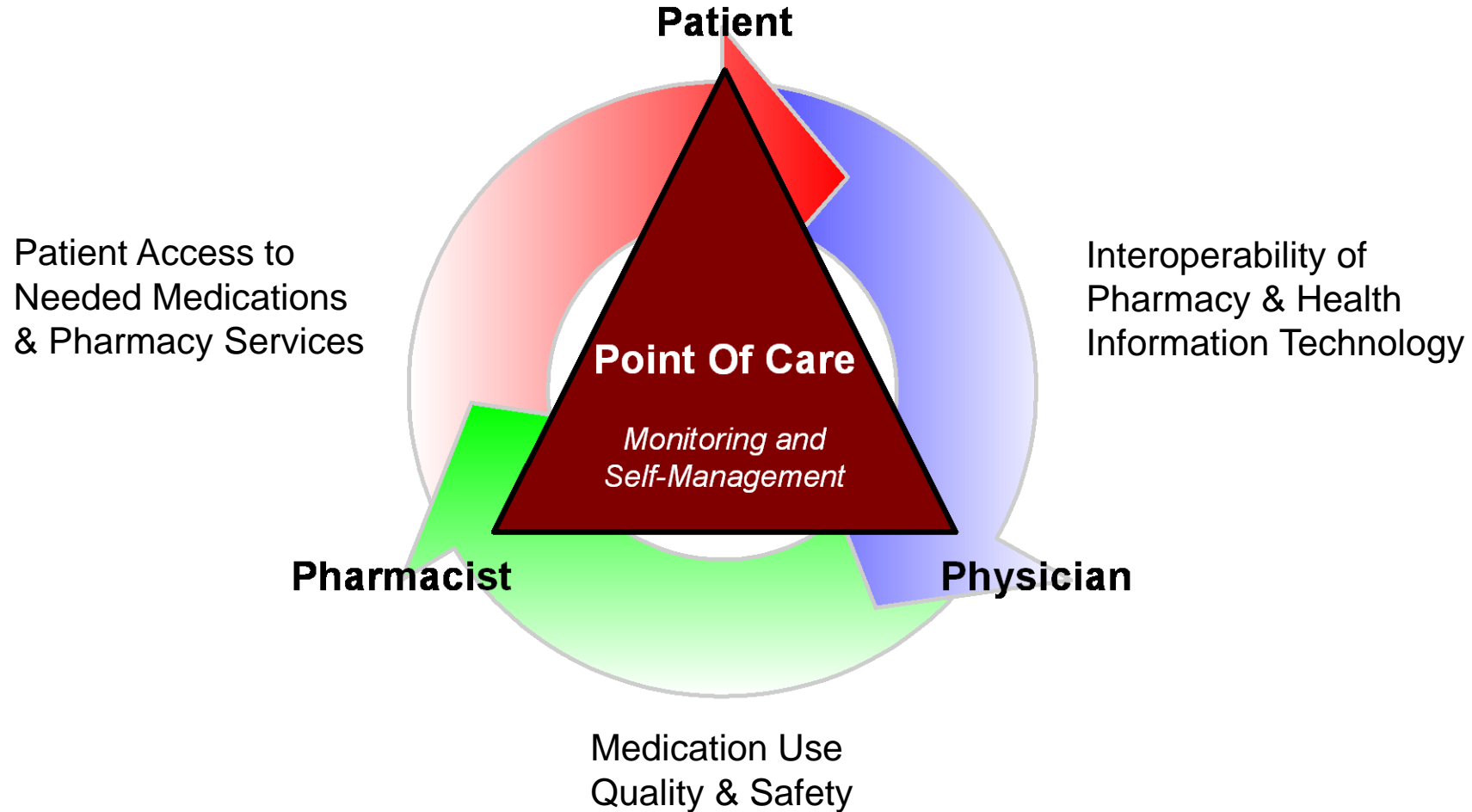
Vaccine	Age Stratification	Coverage Rate*	HP 2020 Goal**
Influenza	≥65 years	66.7%	70%
Influenza	≥18 years	43.6%	70%
Tdap	≥65 years	61.3%	90%
Tdap	≥19 years	20.1%	Not Set
Hepatitis A	≥19 years	9%	Not Set
Hepatitis B	≥19 years	24.5%	Not Set
Herpes Zoster	≥60 years	27.9%	30%
HPV	Females 19-26 years	40.2%	80%
HPV	Males 19-26 years	8.2%	80%

- What levels might be possible with an enhanced practice model?
  - 10% increase, 15% increase, 20% increase, 25% increase

\*Source: MMWR Surveill Summ 2016;65(No. SS-1):1–36. DOI: <http://dx.doi.org/10.15585/mmwr.ss6501a1>

\*\*Healthy People 2020 Goals (presented where set by the United States Public Health Service)

# Inventing a Preferred Future...



***Align the Incentives, Improve the Outcomes, Control the Costs™***

# Health Care Delivery Collaborations

## *Common Goals to...*

---

Improve patient care

Increase communication between and among patients / providers

Increase availability of objective measures

Reduce total cost for care over time

***“Collaborate with your pharmacist to invent a preferred future.”***

***- Benjamin Bluml, R.Ph. [bbluml@aphanet.org](mailto:bbluml@aphanet.org)***