

Model Vaccine Policy for Colleges and Universities

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Introduction



The Organizations

- ▶ Immunize Kansas Coalition (IKC): a group of Kansas providers, health department officials, researchers, and educators working together to improve vaccine rates and protect Kansans against vaccine-preventable diseases. (immunizekansascoalition.org)
- ▶ Kansas Health Institute (KHI): a nonprofit, nonpartisan educational organization in Topeka, committed to convening meaningful conversations around tough topics related to health. (khi.org)



The Framing

- ▶ Kansas has one law concerning vaccinations and post-secondary institutions:
 - ▶ (K.S.A. 76-761a), adopted by Kansas Board of Regents, requires each state university to have in place policies and procedures requiring incoming students residing in student housing to be vaccinated against meningococcal disease or sign a waiver.
- ▶ IKC policy group saw a need for a comprehensive policy, but what would it look like?

The Project

Background

Examine Current Policy Landscape

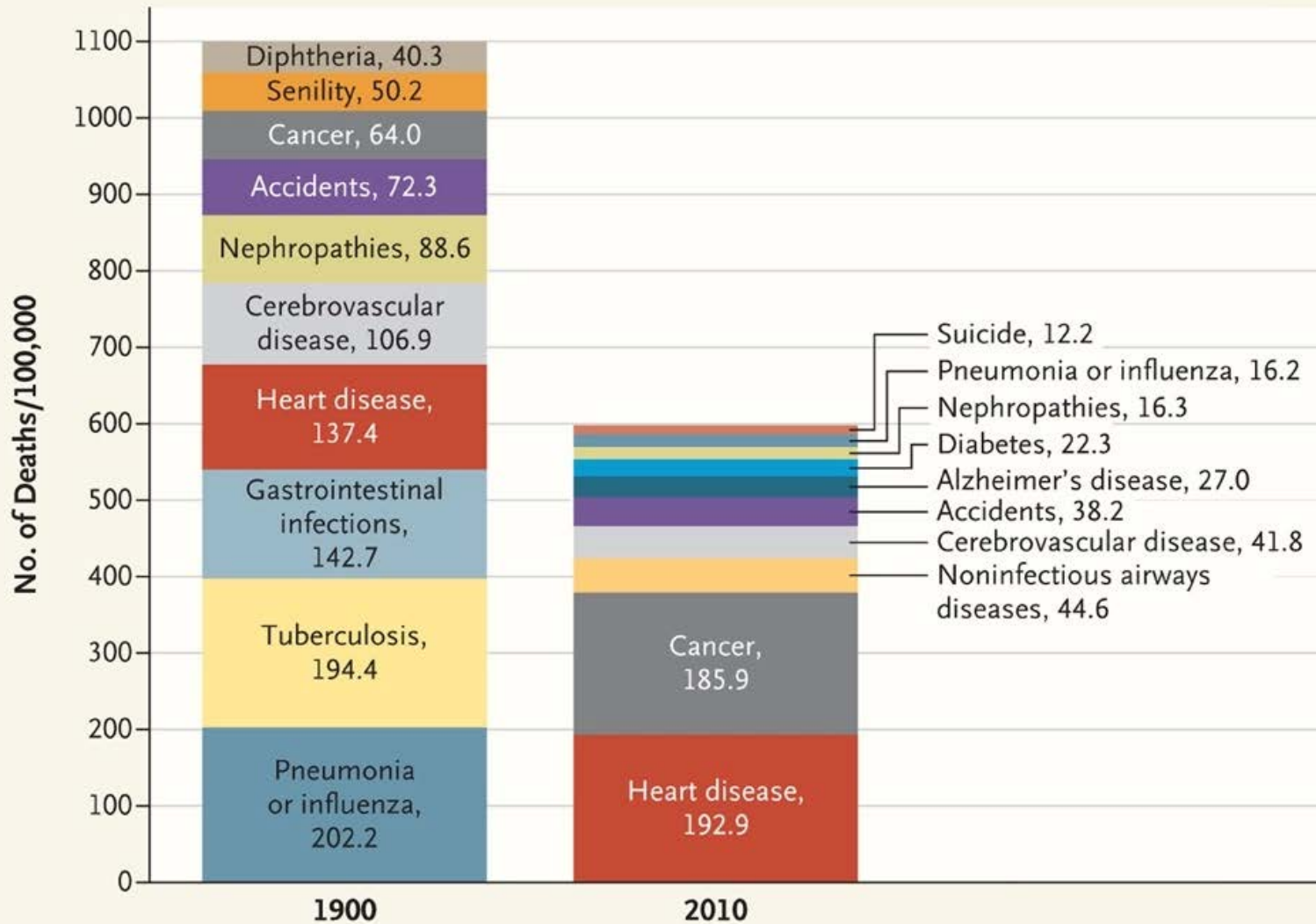
Assess desire/need for updated policy with key informant interviews

Issue Brief about model policy for colleges and universities

Model policy for colleges and universities

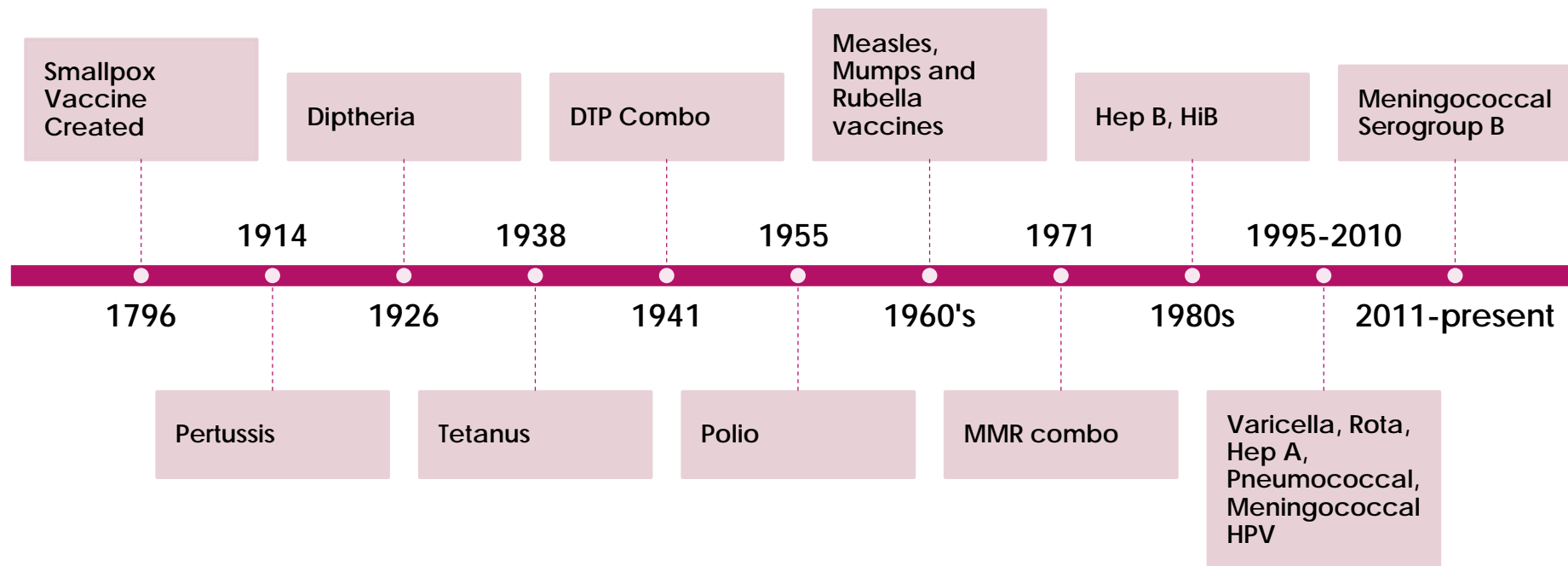
Background

Change in Burden of Disease



- Jones, D. S., Podolsky, S. H., & Greene, J. A. (2012). The Burden of Disease and the Changing Task of Medicine. *New England Journal of Medicine*, 366(25), 2333–2338. <https://doi.org/10.1056/NEJMp1113569>

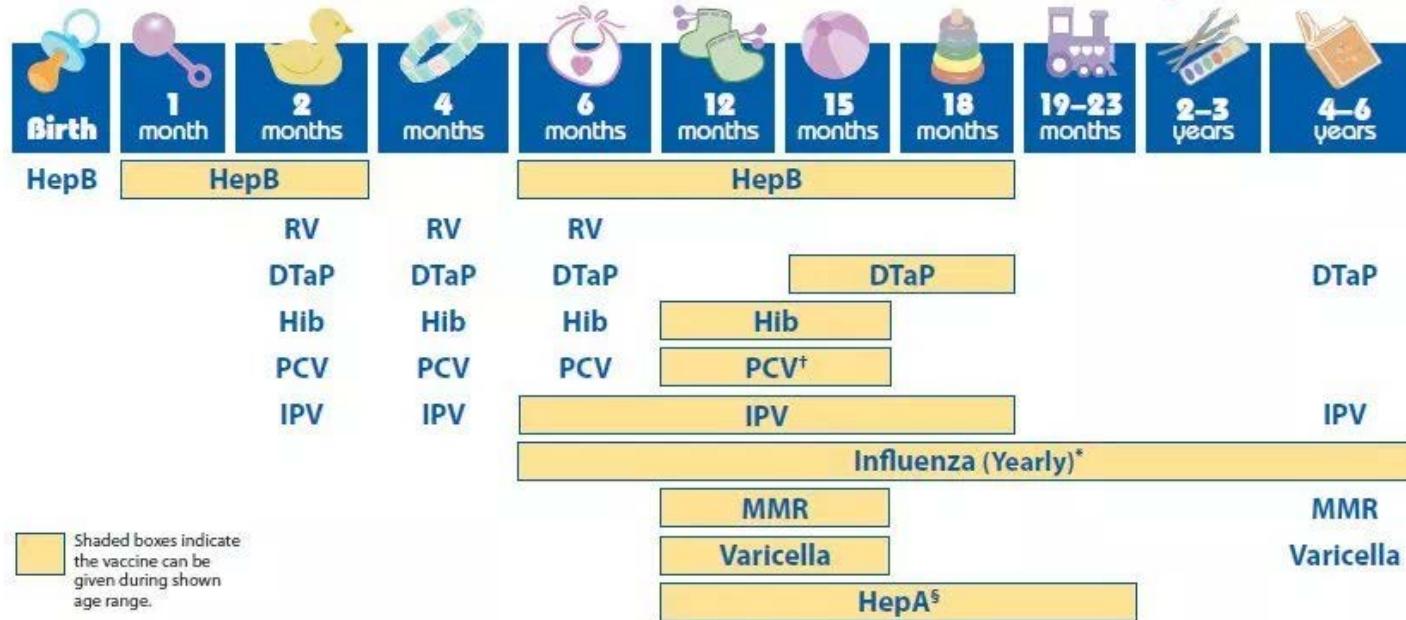
Timeline of Vaccine Creation



<https://www.chop.edu/centers-programs/vaccine-education-center/vaccine-history/developments-by-year>

Current Recommended Childhood Vaccine Schedule

2012 Recommended Immunizations for Children from Birth Through 6 Years Old



Recommended Adolescent Vaccine Schedule

- Key:
- Green: recommended unless medical reason
- Orange: for child catching up
- Purple: recommended for children with risk factors
- Blue: Children not at risk may get vaccine if wish

INFORMATION FOR PARENTS

2019 Recommended Immunizations for Children 7–18 Years Old

Talk to your child's doctor or nurse about the vaccines recommended for their age.

	Flu Influenza	Tdap Tetanus, diphtheria, pertussis	HPV Human papillomavirus	Meningococcal		Pneumococcal	Hepatitis B	Hepatitis A	Polio	MMR Measles, mumps, rubella	Chickenpox Varicella
				MenACWY	MenB						
7-8 Years	Green	Orange		Purple		Purple	Orange	Orange	Orange	Orange	Orange
9-10 Years			Blue	Purple							
11-12 Years	Green	Orange	Green	Green		Purple	Orange	Orange	Orange	Orange	Orange
13-15 Years				Orange		Purple	Orange	Orange	Orange	Orange	Orange
16-18 Years	Green	Orange	Orange	Green	Blue	Purple	Orange	Orange	Orange	Orange	Orange

More information:

- Everyone 6 months and older should get a flu vaccine every year.
- All 11- through 12- year olds should get one shot of Tdap.
- All 11- through 12- year olds should get a 2-shot series of HPV vaccine. A 3-shot series is needed for those with weakened immune systems and those who start the series at 11 years or older.
- All 11- through 12- year olds should get one shot of meningococcal conjugate (MenACWY). A booster shot is recommended at age 16.
- Teens 16-18 years old may be vaccinated with a serogroup B meningococcal (MenB) vaccine.

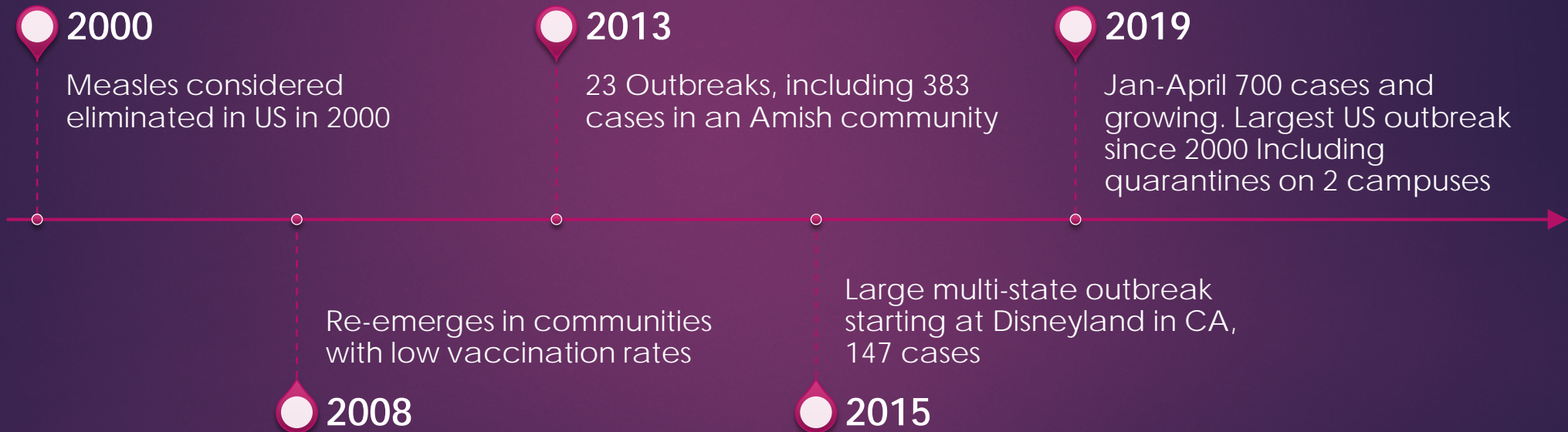
Vaccination Data For Kansas vs. US

Vaccine	Kansas (%)	US (%)
Combined 7 Series*	69.5	70.4
HPV series (up-to-date)	34	49
Men Quad (ACWY)	72	85

19-35 months, the combined 7-vaccine series (4:3:1:3:3:1:4) includes ≥ 4 doses of DTaP, ≥ 3 doses of Polio, ≥ 1 dose of measles-containing vaccine, Hib full series, ≥ 3 HepB, ≥ 1 Var, and ≥ 4 PCV

Source: National Immunization Survey, 2017

The Return of Measles



Campus Outbreaks of Mumps

multi-state outbreak with 6500 cases, mostly college students including **200 cases at the University of Kansas.**

- Spread to 8 states from University of Iowa, to Nebraska through sporting event

Temple University outbreak, 140 cases, spread to 3 other universities in the Philadelphia area

2016

2006

2019

150 outbreaks, 9200 cases including University of Iowa, University of Illinois, University of Washington, University of Kansas and Kansas State University

Temple University Students Lining Up for an MMR booster

Photo Credit: Triblive.com
03/27/19



Outbreaks are Costly

2016-17 University of Washington outbreak estimated to cost \$6692 per case, total cost \$282,762 (Pike et al., 2019)

2016 University of Iowa outbreak estimated to cost \$649,000, including a third dose of the MMR for 5,500 students (Marin et al., 2018)

Why Third MMR?

- ▶ 2 doses included in childhood series
- ▶ Two doses of MMR vaccine are 97% effective against measles and 88% effective against mumps. (CDC)
- ▶ 9x higher risk of mumps if MMR >13 years prior to outbreak*
- ▶ 3rd dose of MMR had 78% lower risk of mumps*
- ▶ 2017 CDC began recommending 3rd dose of MMR for people at increased risk of mumps

*Cardemil, C. V., Dahl, R. M., James, L., Wannemuehler, K., Gary, H. E., Shah, M., ... Quinlisk, P. (2017). Effectiveness of a Third Dose of MMR Vaccine for Mumps Outbreak Control. *New England Journal of Medicine*, 377(10), 947–956.

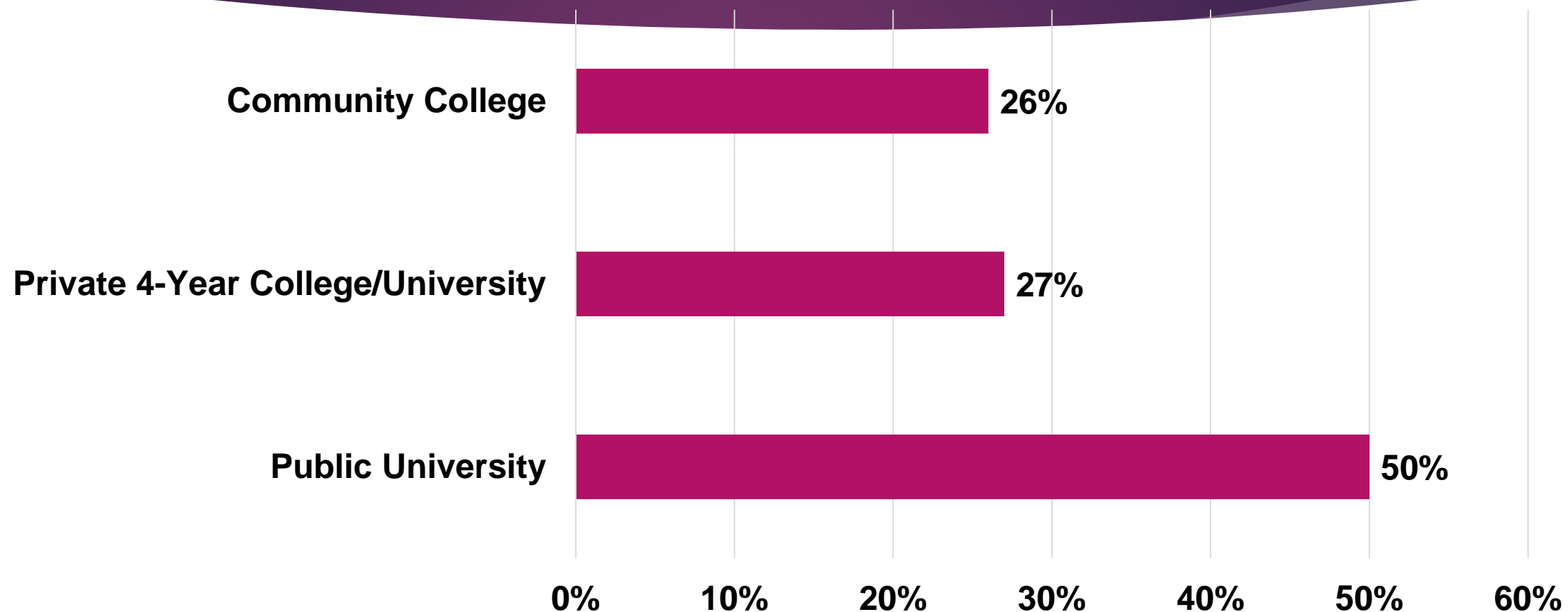
<https://doi.org/10.1056/NEJMoa1703309>

Current Policy Landscape

Kansas Schools

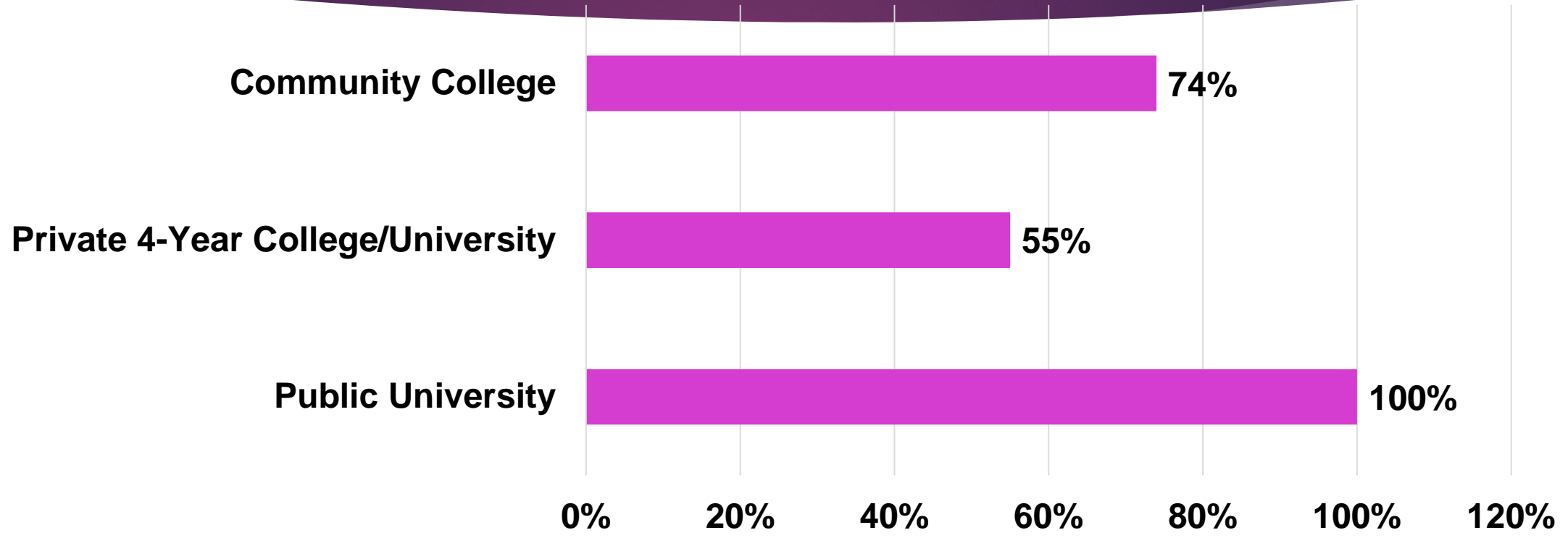
- ▶ 55 Kansas Universities and Colleges
 - ▶ 6 large public universities
 - ▶ 22 private 4-year colleges
 - ▶ 19 2-year community colleges
 - ▶ 7 technical colleges
- ▶ 243,719 students (full and part-time) in 2017* in public colleges and universities
- ▶ *According to the Kansas Board of Regents

Percent of Institutions Requiring MMR, by Type of Institution, 2019



Excludes requirements for International students and clinical health programs

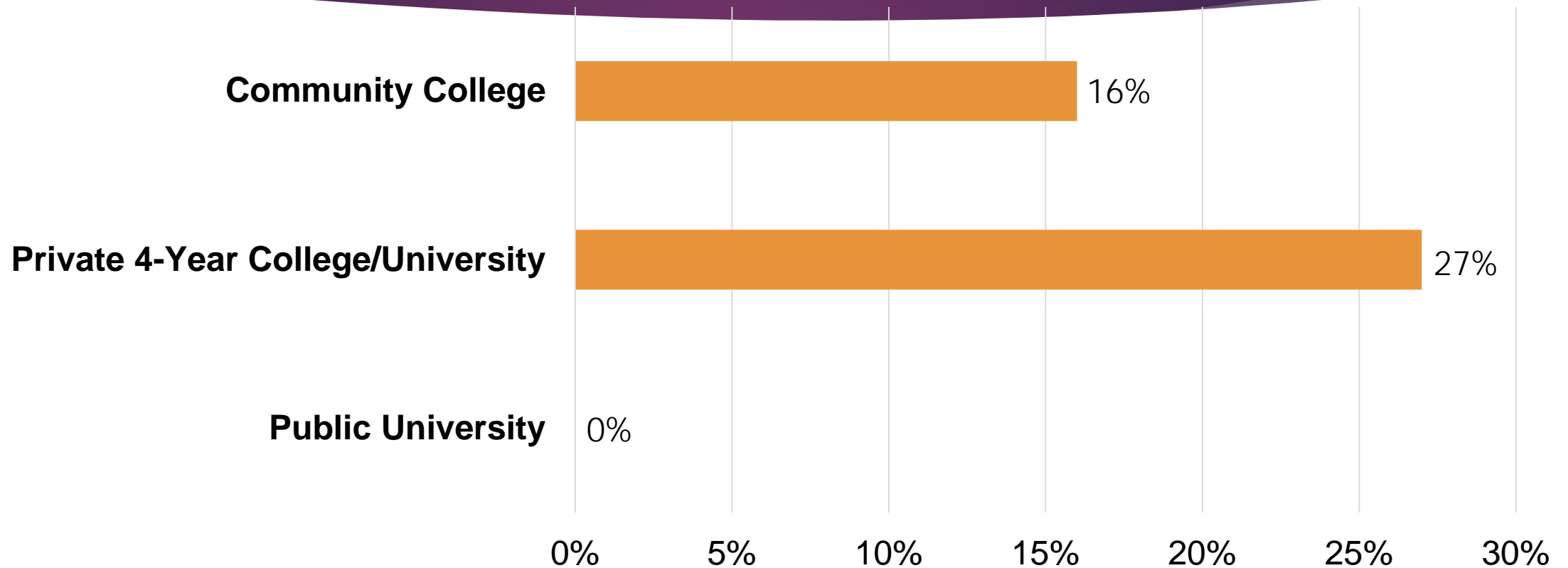
Percent of Institutions Requiring Meningococcal Quad, by Type of Institution, 2019



Excludes requirements for International students and clinical health programs

Percent of Institutions Requiring Tdap, by Type of Institution, 2019

21



Excludes requirements for International students and clinical health programs



Key Informant Interviews

Stakeholders



2 REPRESENTATIVES
FROM KDHE



4 REPRESENTATIVES
FROM LOCAL HEALTH
DEPARTMENTS



2 REPRESENTATIVES
FROM LARGE PUBLIC
UNIVERSITIES



2 REPRESENTATIVES
FROM COMMUNITY
COLLEGES



2 REPRESENTATIVES
FROM PRIVATE
COLLEGES

Interview Questions



- ▶ 11 vaccines
- ▶ Greek Housing System
- ▶ Exemption
- ▶ Grace Period
- ▶ Record-keeping
- ▶ Anticipated challenges
- ▶ How to overcome challenges

Interview Findings

Required

- MMR
- Meningococcal Quad
- Meningococcal Serogroup B
- Varicella
- Tdap

Recommended

- Flu
- HPV
- Hep A
- Hep B
- Polio
- Pneumococcal

Findings, continued

Challenges

- Record-keeping
- Support from university or college administration
- Enforcement of consequences of immunization delinquency
- Staff
- Money

Needs

- Administration Buy-in
- Staff

Model Policy

The Model Policy

**Still a Work in Progress*

- ▶ 2 doses of MMR for all students
- ▶ Meningococcal quadrivalent for students in ALL group housing
- ▶ Early proof of immunization with short grace period
- ▶ Vaccination recommendations in line with ACHA
- ▶ Record-keeping

Presenting the Project to Immunize Kansas Coalition

- ▶ April 12, 2019
- ▶ Topeka, KS
- ▶ Photo credit: Carlie Houchen, KHI



Foundational and Emphasis Competencies

MPH Foundational Competencies

Number and Competency		Description
7	Assess population needs, assets and capacities that affect communities' health	Identifying existing vaccine policies at 55 colleges and universities in Kansas, and creating a new model policy that addresses disease outbreaks among populations on college campuses
9	Design a population-based policy, program, project or intervention	Our model vaccine policy will be created for all colleges and universities that wish to implement it.
13	Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes	The Immunize Kansas Coalition works to influence public health outcomes.
15	Evaluate policies for their impact on public health and health equity	We are examining existing vaccine policies with emphasis on communicable diseases that spread easily on college campuses.
21	Perform effectively on interprofessional teams	I have worked with employees of Kansas health Institute as well as members of the Immunize Kansas Coalition to draft this issue brief and vaccine policy

INTERESTS: SOCIAL
DETERMINANTS OF
HEALTH, CHRONIC
DISEASES

Public Health Nutrition Emphasis

MPH Emphasis Competencies

Information
literacy of
public
health nutrition

Compare and
relate research
into practice

Population-
based health
administration

Analysis of
human nutrition
principles

Analysis of
nutrition
epidemiology

Thank You!

- ▶ Charlie Hunt and KHI
- ▶ Sandy Procter
- ▶ Annelise Nguyen
- ▶ Ric Rosenkranz
- ▶ Ellyn Mulcahy
- ▶ Barta Stevenson

- ▶ Greg Newmark

Questions?