Thank you to Texas state health service for the privilege of speaking with you today.

- Thank you to everyone here who immunizes. You are saving lives by protecting people from viral and bacterial assaults on their health.
- Thank you to the Academy of Pediatrics. Much of the material I am going to talk about was published in their Journal.
- Thank you to the researchers who made their data available.

First a bit of vaccine science:

SHOW ME THE EVIDENCE

VACCINATING AT AGE 11-12
Vaccine development

Vaccine pipeline: prophylactic and postlicensure vaccine development activities.

Vaccine Safety Datalink (VSD)

- Large-linked database
- Links vaccination and health records
- “Active surveillance”
  - ~8 HMOs
  - ~2% of the U.S. population
- Powerful tool for monitoring vaccine safety

Vaccine Adverse Event Reporting System (VAERS)

- Detects
  - new or rare events
  - increases in rates of known side effects
  - patient risk factors
- Additional studies required to confirm VAERS signals
- Not all reports of adverse events are causally related to vaccine
Participatory:

“Do you want to vaccinate your child today?”
“What do you think about vaccines?”
“Would you like to hear about the vaccines we offer for today’s visit?”

Presumptive:

“Today your child is due for 2 vaccines. We will be giving MMR and Varicella.”
“It’s time for an annual influenza vaccine. Your child is old enough to receive either the inactivated shot or the live nasal spray.”

TABLE 2
Parental Concerns About Vaccines

<table>
<thead>
<tr>
<th>Vaccine safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ten vaccines</td>
</tr>
<tr>
<td>Development of autism</td>
</tr>
<tr>
<td>Vaccine additives (meningial, aluminum)</td>
</tr>
<tr>
<td>Overload the immune system</td>
</tr>
<tr>
<td>Serious adverse reactions</td>
</tr>
<tr>
<td>Potential for long term adverse events</td>
</tr>
<tr>
<td>Inadequate research performed before licensure</td>
</tr>
<tr>
<td>May cause harm to the child</td>
</tr>
<tr>
<td>May make the child sick</td>
</tr>
<tr>
<td>Necessity of vaccines</td>
</tr>
<tr>
<td>Disease is more “natural” than vaccine</td>
</tr>
<tr>
<td>Parents do not believe diseases being prevented are serious</td>
</tr>
<tr>
<td>Vaccine-preventable diseases have disappeared</td>
</tr>
<tr>
<td>Not all vaccines are needed</td>
</tr>
<tr>
<td>Vaccines do not work</td>
</tr>
</tbody>
</table>

Approaches for Responding to Parents Unsure About Immunization

1. Listen, evaluate, and categorize
2. Recognize legitimate concerns
3. Provide context
4. Relate non-information
5. Provide valid information
6. Recognize that it is the parent’s decision
7. Educate about potential consequences
8. Make a clear recommendation

Adapted with permission from: Kliegman, R.A. How to manage parents unsure about immunization. CME. 2000;13(1):64.
Impact of recommendation quality

HPV vaccine initiation rates:

- 23%, if no recommendation
- 53%, if low-quality recommendation
- **73%**, if high-quality recommendation: same way, same day

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Why does this approach work?

- Some parents perceive decisions about vaccination to be complicated.
- By explicitly stating that HPV vaccination is what YOU (their trusted provider) do for all your patients at that age, parents perceive vaccination as normal and important.
- If you convey to the parent you have any hesitation about the vaccine, then why should they feel confident in getting it? You are the expert!

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CASE*

CASE is an acronym for Corroborate, About Me, Science, Explain/Advise.

**Corroborate:** Acknowledge the parents’ concern and find some point on which you can agree. Set the tone for a respectful, successful talk.

**About Me:** Describe what you have done to build your knowledge base and expertise.

**Science:** Describe what the science says.

**Explain/Advise:** Give your advice to patient, based on the science.

*Developed by Alison Singer, MBA, Autism Science Foundation.
Parent Question: Do vaccines cause autism?

CASE Response:
Corroborate: I understand why you might think this. There is a lot of information online and in the news about vaccines and autism.
About Me: I like to make sure that I always have the most up-to-date information on this topic so I can inform families about what we do know about vaccines and autism, so I’ve researched this thoroughly.
Science: The scientific evidence does not show any link between vaccines and autism. There have been several studies that have looked for a connection, but none has been seen. The CDC, the AAP, the National Institutes for Health, and the Institute of Medicine agree that vaccines do not cause autism.

Explain/Advise: But vaccines are critical to maintaining health and wellbeing. They prevent diseases that cause real harm. Choosing not to vaccinate does not protect children from autism, but does leave them open to diseases. I would recommend that your child receive these vaccines today.

Motivational Interviewing for Vaccine Hesitant Parent

A. A. T. A. C.
- Ask.....
- Ask.....
- Tell.....
- Ask.....
- Commit

When a parent has vaccine hesitation, do not take it personally. They want to do the best for their child. Be reassuring and address their concerns.

Demonstrate AATAC method

Audience participation

C.A.S.E method
A.A.T.A.C. method
Success!
Disease prevented. Cancer averted!

Thank you
Texas Immunizations
AAP
American Cancer Society
Texas Pediatric Society
Amistad Community Health Center and their MA's
Addressing Vaccine Hesitancy

MARGIE E. PADILLA, PHARMD, CDE, BCACP
CLINICAL ASSOCIATE PROFESSOR/INTERPROFESSIONAL EDUCATION COORDINATOR
UTEP SCHOOL OF PHARMACY

Objectives

1. Identify strategies to navigate vaccine hesitancy
2. Review best practices to increase vaccine uptake
3. Apply motivational interviewing techniques (Lori Anderson)

Impromptu Networking (20-min)

Invitation
“What are the biggest challenges that you have faced with vaccine hesitancy? (Personally with family or with clients, your own reservations)

Pair Configuration
- Encourage to pair up with a stranger or colleagues

Sequence of Steps and Time Allocation
- In each round, 2 minutes per person to answer the question
- 4-5 min. per round (Three rounds)

Group Debrief
Consensus Definition

“Vaccine hesitancy refers to delay in acceptance or refusal of vaccination despite availability of vaccination services. Vaccine hesitancy is complex and context specific, varying across time, place, and vaccines. It is influenced by factors such as complacency, convenience, and confidence.”

Reference: WHO Strategic Advisory Group of Experts (SAGE) on Immunization (MacDonald 2015)

The 3 C’s Model

Confidence
Complacency
Convenience

Reference: WHO Strategic Advisory Group of Experts (SAGE) on Immunization (MacDonald 2015)

Confidence

Problem:
- Lack of confidence in safety of the vaccine
- Lack of confidence in the health system competence
- Lack of confidence in those whom advocate for vaccination

How to Address:
- Educate patients about safety and efficacy of the vaccine (individually and public health campaigns/partnerships)

Reference: WHO Strategic Advisory Group of Experts (SAGE) on Immunization (MacDonald 2015)
Complacency

Problem:
- Perception: “They don’t see themselves as being at risk of a vaccine preventable disease/or that it’s not that serious” (Complacency)

How to address:
- Education about risk of disease
- Exploring beliefs through motivational interviewing

Convenience

Problem:
- Lack of easy access to vaccines
  - Hours available
  - Cost
  - Location
  - Language barriers

How to address:
- Know your community and what is available
- 24-hr community pharmacies
- Flu clinics
- Identify your workflow (physicians, nurse practitioners, nurses, pharmacist) who can immunize

Determinants of Vaccine Hesitancy

Contextual influence
Individual and Group influences
Vaccine-specific influences

Reference: WHO Strategic Advisory Group of Experts on Immunization (MacDonald 2015)
**Contextual influences**

“arising due to historic, socio-cultural, environmental, health system/institutional, economic, or political factors.”

These include factors such as geography, politics, religious beliefs, and historical factors; perception of pharmaceutical industry.

Reference: WHO Strategic Advisory Group of Experts (SAGE) on Immunization (MacDonald 2015)

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**Individual and Group influences**

* Arising from personal perception of the vaccine or influences of the social/peer environment
* These include factors such as the perceived risk-benefit, trust of their health care provider, and personal or family member’s previous experience

**Vaccine-specific influences**

Related to the vaccine or process of vaccination

* These can include factors such as:
  * Actual cost of the vaccine (e.g. HPV for 24-45 years of age)
  * New or updated vaccine or schedule change
  * Recommendation from their health care provider

Reference: WHO Strategic Advisory Group of Experts (SAGE) on Immunization (MacDonald 2015)
Summary: Patient Communication

Be proactive: (Have an elevator speech)
- Be informed, rehearsed, and ready to address anti-vaccination responses from patients.

Ensure two-way communication: (Takes 2 to tango)
- Be an active listener (key to understanding patient perspectives so that you can correct misinformation)

Patient Communication

Knowledge does not ensure change:
- As with any health behavior, knowledge does not create change on its own.
- Motivational interviewing can be useful to explore patient motivation and cultural/belief system.

Use available tools:
- Utilize existing communication tools
- CDC.gov and the Immunization Action Coalition (immunize.org) have many fact sheets, flyers, posters, etc., that are free to print and share.

Best Practices
NEED:
Cervical cancer mortality rate among US-Mexico border Hispanic women is the highest in the nation. In addition, most penile cancers (63%) are associated with HPV infection and Hispanic males have the highest incidence in the country.

PROGRAM:
A multi-component program that was developed with the overall goal of reducing the burden of Human Papilloma Virus (HPV) associated cancers most particularly cervical in El Paso County through education and provision of no cost vaccines for uninsured and under insured members of the community.

Outcomes:
- Increase community awareness & knowledge about HPV vaccine: We increased awareness of the HPV vaccine and were able to improve knowledge by 4.1% and decrease barriers by 11.3%.
- Increase health care provider recommendation for HPV vaccine: This was increased by 74%.
- Increase HPV immunization uptake among residents of El Paso County: We were successful in increasing initiation rates by 17.9% and completion rates by 39.8%.
- A total of 3192 vaccines were given by the program.
- Developing and implementing a culturally tailored educational intervention
- Building collaborations and community resources for vaccine preventable diseases through the El Paso Immunization coalition.
- Creating curriculum for training of promotoras on HPV and HPV related diseases.
- Instituting process change to improve HPV vaccination rates in a large multispecialty physician group.
- Developing key collaborations with El Paso Immunization coalition leading to sustainable educational outreach on vaccine preventable diseases.

Implementing Innovative and Strategic Approaches to Prevent and Mitigate the Deleterious Effects of HPV Across the Lifespan of Hispanics of Mexican Origin

Dr. Robert Kirken (Principal Investigator)
Dr. Eva Mota (Core Lead)
Dr. Margie Padilla (Co-Investigator)
Dr. Gabriel Fries (Co-Investigator)
Dr. Kristen Goselein (Co-Investigator)

5-Year Timeline
Questions???

A-Team

EDTECH-HPV: A COMMUNITY APPROACH USING EDUCATION AND TECHNOLOGY TO INCREASE HPV VACCINATION

Project Team

Memorial Sloan Kettering Cancer Center
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Rosario Bustos Munoz, PhD
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Escarleth Fernandez

University of Texas at El Paso
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Marina Ramirez, MSW
Roselie Munoz, MA
Jacqueline Cordero, LMSW Doctoral Student

SUNY Downstate
Denise Bruno
The Human Papillomavirus (HPV) is the most common sexually transmitted infection in the U.S. (CDC, 2014). However, the HPV vaccine can protect against HPV...

Aims 1

To compare HPV vaccination series completion in children whose parents who complete an education session on HPV and are then randomized to either:

- Arm 1: Test Group
  - Education + reminder of 2 or 3 weekly text messages about HP vaccine for each dose

- Arm 2: Control Group
  - Education but no reminder of vaccine

- Children assessed following a 2 or 3 dose schedule depending on their age

Study Sites
Social Marketing Campaign

Recruitment Materials Piloted at NYC

General Consulate of El Paso waiting area
Marina Ramirez Project Coordinator presenting on HPV
El Paso Recruitment Challenges

- Seasonal Recruitment
- Myths associated with the vaccine
  - Vaccine causes Autism and Epilepsy
  - Vaccine is only for females
- Border State
  - Mexican vaccine regulations
  - Communication barriers, not owning a cell phone

Spring 2019 Health, Opportunity, Prevention, and Education (HOPE)
An interdisciplinary community-engaged intervention for homeless communities
May 29, 2019
Photos courtesy of the UTEP students
In summary

155 residents and guests served;
225+ volunteers;
27 partner organizations/agencies;
71 evaluation forms collected.
Objectives

- Provide health screenings, information and education of health priorities for the residents of the Opportunity Center and guests.
- Connect residents with services and systems of care.
- Facilitate follow-up referrals for the residents of the OC in collaboration with social services, San Vicente Family Health Center, and community partners.
- Provide a venue for collaboration and co-leadership experiences among participating community agencies, faculty, students, volunteers and OC staff.

More than health services

Perspectives
El Paso Immunization Coalition

- More than 15 partners
  - Department of Health
  - TTUHSC
  - UTEP
  - Walgreen’s Pharmacy
  - Immunize El Paso
  - El Paso Independent School District
  - Drug Companies
  - City of El Paso
  - United Health Care
  - Physicians

Monthly Meetings
- Discuss ways to increase vaccine awareness
- Collaborations on projects
- Collaboration on health outreach efforts
- Collaboration on Continuing Education
- Collaborations on Research

Projects
- One Day Continuing Education Event for all health care providers and community members on vaccines and vaccine hesitancy
- Social Media Efforts
- Partner up with HOPE Fair
- Partner up with other fairs
- Advocacy updates and efforts
- Support Research
Questions

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