

# Motivational Interviewing (for HPV Vaccine Conversations)

**ALLIANCE FOR  
HPV FREE COLORADO**

[HPVFreeCO.org](http://HPVFreeCO.org)

# Your Training Guide



James M. Nesbit, Ph.D., M.A, R.Ph.  
Harding University College of Pharmacy  
Searcy, AR

"Content adapted from the Alliance for HPV Free Colorado (HPVFreeCO.org), supported by the Cancer, Cardiovascular and Chronic Pulmonary Disease Grants Program."

# Disclosures

## CONTRIBUTORS

### *Financial Relationships:*

Amanda Dempsey, MD, PhD, MPH, ACCORDS, Advisory board member for Merck

### *No conflicts to report:*

Elizabeth Abbott, MPH, CCIC,

Jessica Cataldi, MD, ACCORDS

Caitlin Chapman, BSN, RN, Tri-County Health Department

Heather Deis, BSN, RN, Denver Public Health

DeLayna Goulding, BA, Denver Public Health

Jenny Hamilton, BSN, RN, Tri-County Health Department

Grace Marx, MD, MPH, Denver Health

Rachael Leigh Meir, PsyD, Denver Health

Sean O'Leary, MD, ACCORDS

Rachel Piette, BS, Denver Public Health

Sarah Rodgers, MNM, Denver Public Health

Alejandra Santisteban, MPH, Denver Public Health

Christine Schmidt, RN, MS, Jefferson County Public Health

Ann Shen, BSN, RN, Jefferson County Public Health

Judith Shlay, MD, MSPH, Denver Public Health

Nicole Steffens, MPH, Denver Public Health

Eric Taber, MS, CDPHE

Kaitlin Wolff, MPH, BSN, RN, Tri-County Health Department

## FUNDING

The Denver Metro Alliance for HPV Prevention is funded by the 2016-2018 Cancer, Cardiovascular and Chronic Pulmonary Disease (CCPD) Grants Program from the Colorado Department of Public Health and Environment

# Training Objectives

- Understand the basics of MI and repeat these principles
- Strengthen your ability to elicit change talk and commitment language
- Learn communication techniques that encourage HPV vaccine acceptance
- Implement communication techniques that encourage HPV vaccine acceptance
- Be able to demonstrate skill in **using MI strategies that will allow you to personalize the HPV vaccine discussion with your parents**
- Strengthen your ability to **exhibit AGAPE, elicit change talk** and commitment language related to getting the HPV vaccine

# Motivational Interviewing

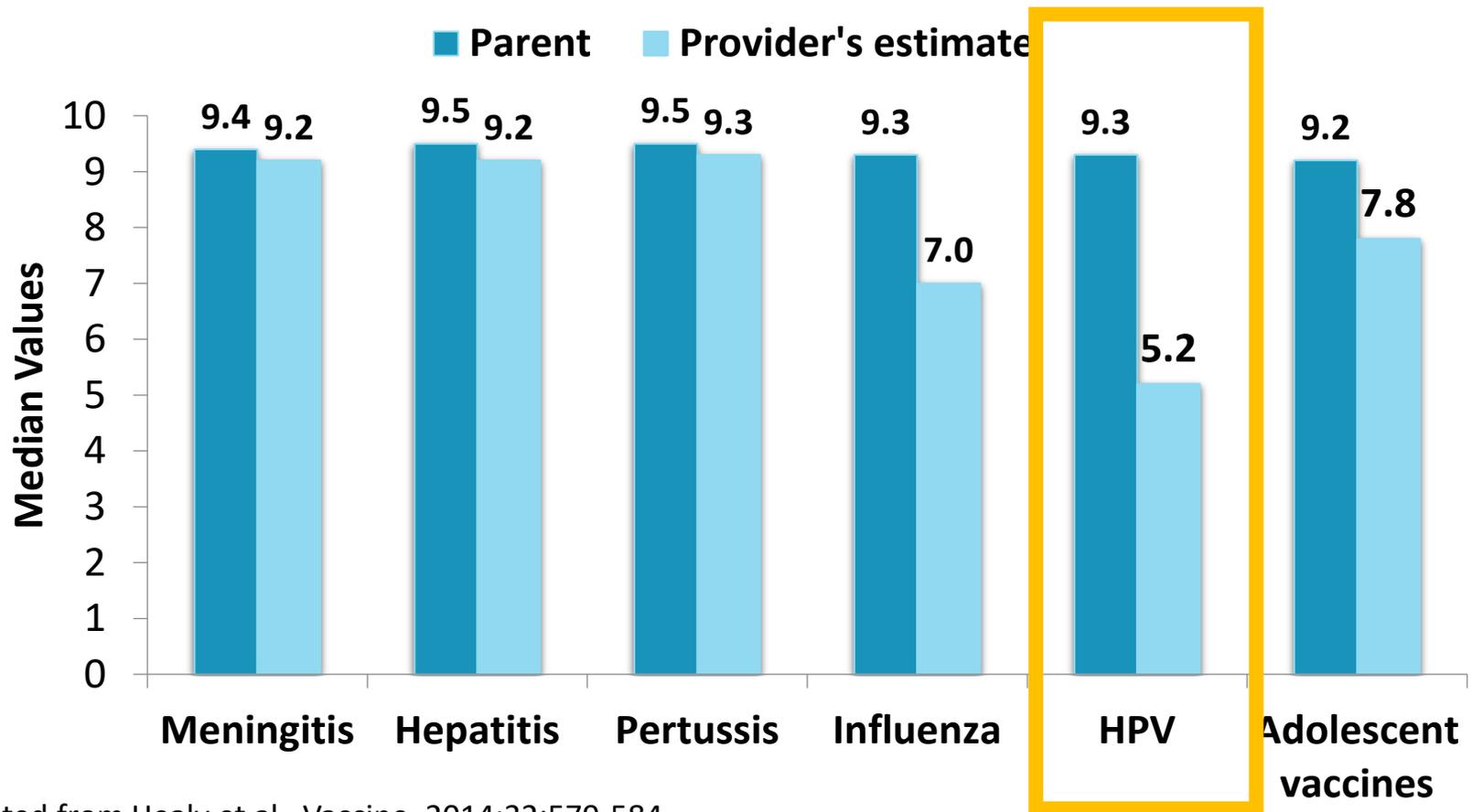
We can get the notes right  
But still miss the beauty of the music



# Reasons for Children Not Getting the HPV Vaccine

- Safety
- Pain
- Parent concern about fostering sexual promiscuity and belief that child won't have sex
- Gender (boys vs. girls)
- Age (too young)
- Vaccine too much for immune system when given with other recommended vaccines
- **Parent says physician did not recommend the vaccine**

# Providers Underestimate the Value Parents Place on HPV Vaccine



Adapted from Healy et al. Vaccine. 2014;32:579-584

# Strong Provider Recommendation

***“So I see that Mary has just turned 12. Since you’re here, this would be a great time for her to get those vaccines which are recommended at that age. These are Tdap, HPV and Meningococcal. What questions, if any, do you have?”***

# Strong Provider Recommendation: *What if I'm not a provider?*

- Recommend all vaccines the patient is due for, encouraging all shots on the same day if applicable
- Consult the clinical staff for additional information
- Avoid assuming the parent will decline vaccines
- Place equal importance on recommended AND required (ex. school) vaccines
- You can have these types of conversations with friends and family as well!

# In Summary

- A strong recommendation works for the parent who is ready to have his/her child vaccinated or who expects the doctor to tell him/her what to do.
  - *We recommend you begin with strong provider recommendation for every family*
- For parents who are unsure/resistant, a closed question following a recommendation can lead to less productive conversations.
- The talk ratio SHOULD be \_\_\_\_\_

The Talk Ratio SHOULD be:

80/20

# Overview of Motivational Interviewing

# WHY MI?

The way we have done it in the past doesn't work. Here's why:

Example: Treatment Adherence

Not much has changed

Patients want information and help but we want to give advice, lecture and be "the expert."

Rates are below 50%

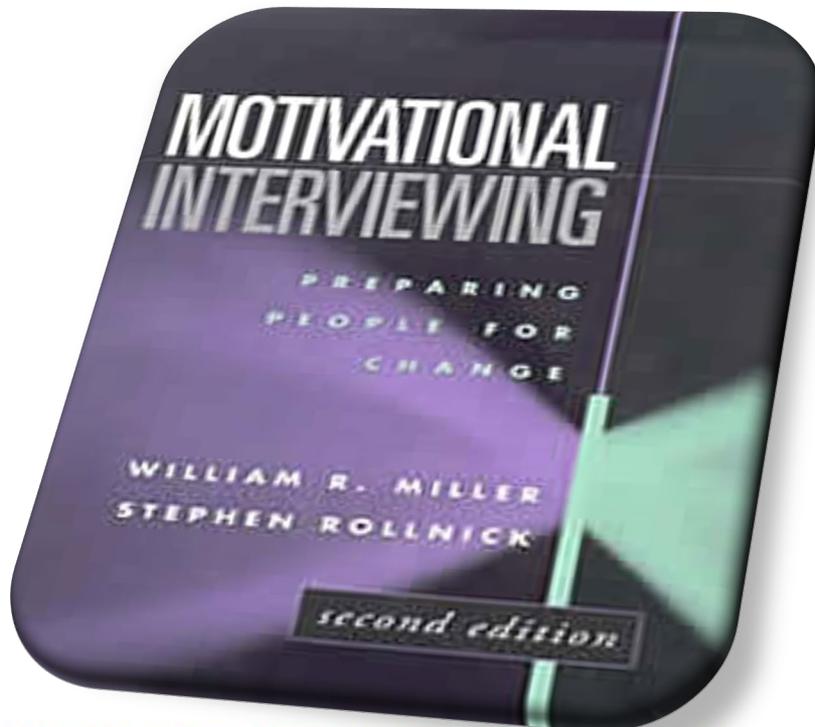
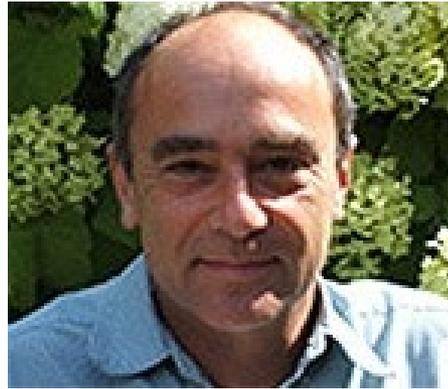
Patients manage their illnesses not us

Old models of patient care don't work

# Biomedical vs. Psychosocial Models

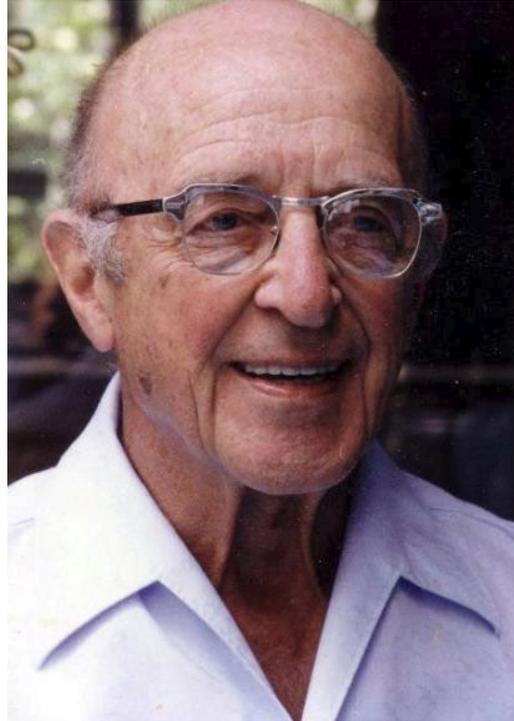
- Practitioner centered
- Information giving
- “fix” the patient
- Dictate behavior
- Compliance
- Authority
- Provide motivation
- Coercion, manipulate
- Resistance is bad
- Argue
- Respect expected
- Patient Centered
- Information exchange
- Patient saves self
- Negotiate behavior
- Adherence
- Negotiation
- Assess motivation
- Understand / accept
- Resistance is information
- Address issues
- Respect is earned

## Miller and Rollnick – Motivational Interviewing



Motivational interviewing focuses on the process of communication between patient and provider. It builds on the Transtheoretical model of change of Prochaska and DiClemente as well as principles from **Carl Rogers** **client – centered** psychotherapy and social cognitive theory of Albert Bandura.

# Client-centered Psychotherapy

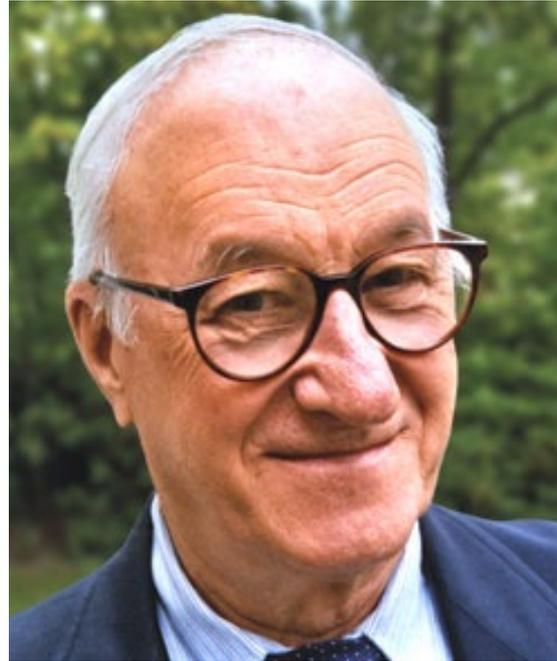


Carl Rogers

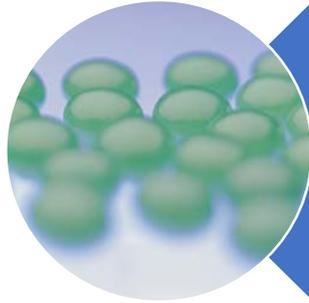
Empathic Understanding is a core skill in motivational interviewing borrowed from Rogers.

# Albert Bandura

## Social Cognitive Theory



- 1.Outcome Expectancy-Engaging in a particular behavior will lead to the outcome I desire**
- 2.Self-Efficacy Expectancy-I am capable of carrying out the behavior change**



## Prochaska and DiClemente's Transtheoretical Model of Change



- Focuses on the stages a person goes through in making decisions to change their behavior.
- Stage 1: Precontemplation
- Stage 2: Contemplation
- Stage 3: Preparation
- Stage 4: Action
- Stage 5: Maintenance

# Motivational Interviewing in a Nutshell

Motivational interviewing is a patient centered, guiding, collaborative communication style for enhancing a person's **own** motivation for change or behavioral activation.

# The Spirit Of MI

- The spirit of MI is “AGAPE.”
  - Unconditional Love
  - Acceptance
  - Compassion
  - Selflessness
  - Hope
- The “spirit” of MI is based on three key elements:
- Be patient (client)-centered—what does the patient want to work on? What are his/her goals?
- Address the patient’s core concern(s) and line of reasoning
- Create a climate that is safe for the patient to learn
- “I Am Willing To Walk This Out With You No Matter What”

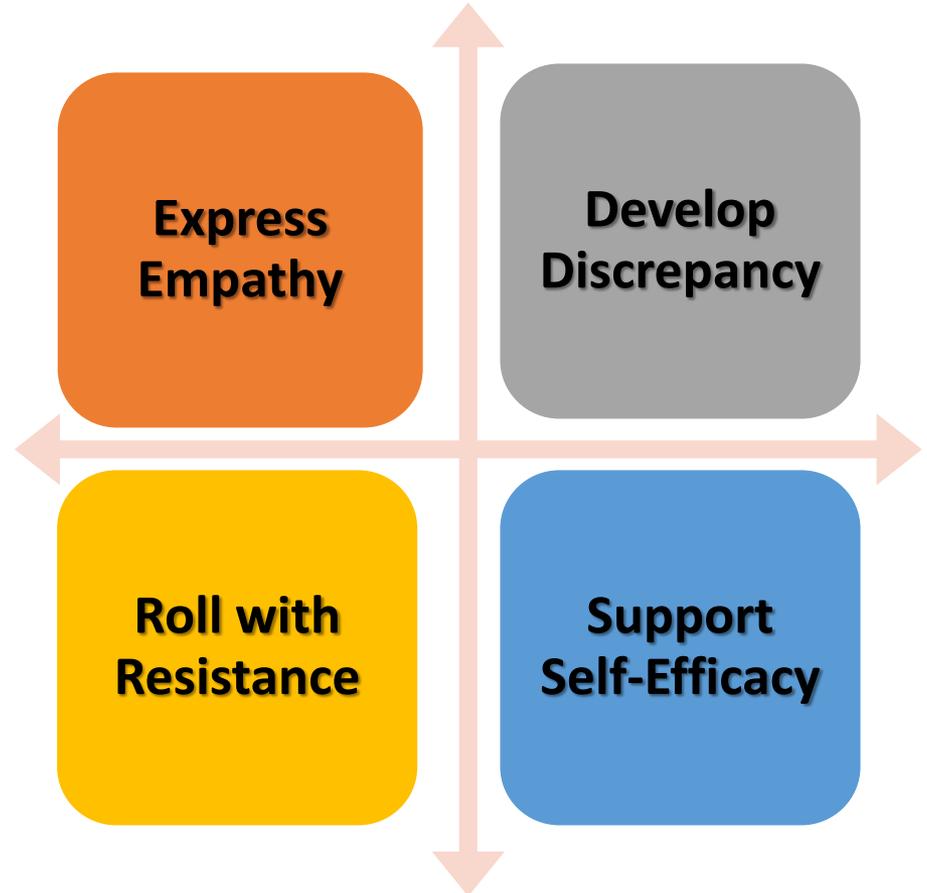
# MI Spirit AGAPE

Evocation  
The patient's  
feelings

Collaboration  
Not  
Competition

Autonomy  
Patient Has  
The Power

# MI Principles



# Ambivalence

## What Is It?

- A normal part of any Decision-making process
- When a person feels two ways about a behavioral action or change
- Ambivalence is NOT unwillingness to change, but the conflict between wanting to change and wanting to stay the same.
- Causes an internal conflict that must be resolved **before** a person takes action
- Often mistaken by providers as resistance
- Will not develop into resistance unless a provider pushes too hard for the vaccine before patient is ready

# AMBIVALENCE

Therefore, the goal of MI is to move the person more toward the positive side of ambivalence and elicit “change” talk.

# Two Sides of Ambivalence

## Non-Change Talk

(all the reasons why I can't or won't let my child be vaccinated)

- “I can't afford the vaccine.”
- “I'm concerned that it will be painful for my son.”
- “I don't want him to deal with the terrible side-effects that I've read about.”
- “I don't want her to think I'm condoning sexual activity.”

## Change Talk

(all the reasons why I can or will let my child be vaccinated)

- “I would feel awful if I waited and she got the HPV virus“
- He's had other vaccinations and gotten through with little pain.”
- “I do have concerns but I'm not completely sold on some of the negative stuff I've read about the vaccine.”
- “I'd like to do everything I can to protect her.”

# MI SKILLS AND TECHNIQUES TO FACILITATE BEHAVIOR CHANGE

## O-A-R-S

- **O**pen-Ended Questions
- **A**ffirmations
- **R**eflections
- **S**ummaries



# Open-Ended Questions

What would be a good time for you to start all of this?

How are things going with your daughter?

What's your understanding of what this means?

**“What are your thoughts now about vaccinating Suzie?”**

**“Where does this leave you now?”**

**“What kind of assistance do you need?”**

**“What concerns do you have about the HPV vaccine?”**

# POWER PRACTICE

Turn the following closed-ended questions into open-ended questions

“Are you taking your medications as prescribed?”

“How many drinks do you have in a typical day?”

“Do you want to quit smoking?”

“Is your diabetes under control?”

“Can you tell me about your current diet?”

“Are you experiencing any pain?”

**“Do you want to vaccinate today?”**

# Affirmations

- Demonstrate support, hope, or caring
- Show appreciation
- Recognize strengths
- Reinforce behaviors, successes, and/or intentions
- Encourage, recognize client's difficulties

HCP: It sounds like you are still struggling with making these changes, but you have made some changes which is great! How do you think you might reduce your drinking even further?

**Patient: I've thought a little more about what you said about giving my daughter the HPV vaccine.**

**HCP: Great. Tell me more about what you have been thinking. What's got you thinking about it?**

# Reflective Listening – Types of Reflections

- **Simple reflections** are short statements that reflect the content or emotion of what the person said. You can choose which element or aspect to reflect back.
  - If patient said: *I know you keep saying my daughter needs to get this vaccination, but I'm just not sure it's necessary...*
  - A reflection is: *Even though I've been encouraging you to have your daughter get the vaccine for some time now, you're still unsure if it's needed.*
- **Complex reflections** go beyond what was said and offer a new perspective. There are several types of complex reflections:
  - **Amplified** – the person's statement is taken to the extreme.
  - **Double-sided** – reflects back the ambivalence or pros and cons.
  - **Guessing the unexpressed** – guess at what is underlying the statement.
  - **Affective (feelings)** – reflect back the feelings or emotions expressed.
  - **Continuing the paragraph** – the listener finishes the statement.
  - **Metaphor** – uses a metaphor to restate the person's statement.

# POWER PRACTICE

## Reflective Listening

- **Ready**
  - Reflect back all the reasons (pros) the parent has stated.
- **Unsure**
  - Reflect back what you hear (stating the **cons** before the **pros** so that you end on the positive).
  - One the one hand...On the other hand
  - You have not taken either side of the internal argument but reflected back both sides.
  - The parent sees his/her ambivalence and is not pressured to defend his/her stance.
- **Not Ready**
  - Reflect back that you hear the parent's concerns and affirm that their concerns make sense in the context of how they are thinking.

# Two Sides of Ambivalence

## Non-Change Talk

(all the reasons why I can't or won't let my child be vaccinated)

- “I can't afford the vaccine.”
- “I'm concerned that it will be painful for my son.”
- “I don't want him to deal with the terrible side-effects that I've read about.”
- “I don't want her to think I'm condoning sexual activity.”

## Change Talk

(all the reasons why I can or will let my child be vaccinated)

- “I would feel awful if I waited and she got the HPV virus“
- He's had other vaccinations and gotten through with little pain.”
- “I do have concerns but I'm not completely sold on some of the negative stuff I've read about the vaccine.”
- “I'd like to do everything I can to protect her.”

# Summaries

Pull together the comments made; transition to next topic:

“You mentioned a number of things that concern you about giving your son the HPV vaccine, such as the risks, side effects and safety. You spoke of having doubts if boys really need the vaccine at all. These are all legitimate concerns. How would you feel if I shared some information that might ease some of your worries?”

# Principles of Motivational Interviewing

- EXPRESS EMPATHY-convey *to patients that you are trying to understand the difficulty of change.*
- **An objective identification with the affective state of another (not their experience)**
- Done throughout the process
- Identify and try to understand resistance, reasons for unhealthy behaviors without judgement
- Creates a climate for change through trust
- We DO NOT have to AGREE to express empathy

# Reflection of Feeling

“You feel \_\_\_\_ because \_\_\_\_”

The highest level of empathic listening—focuses on the emotional dimension of the statement.

"You have some serious concerns about having your daughter receive the HPV vaccine, You're not quite sure if it will help her or harm her."

# Express Empathy

- “You seem\_\_\_\_\_”
- “In other words...”
- “You feel \_\_\_\_ because \_\_\_\_” (Reflection Of Feeling)
- “It seems to you...”
- “As I understand it, you seem to be saying...”
- “I gather that...”
- “You sound.....”
- NOT: I UNDERSTAND! Rather “How am I doing? Am I getting it?”

# A GOOD BAD EXAMPLE

- Patient: Everyone makes it sound so easy...just give my child the vaccine...that's it, just do it, no questions asked!
- HCP: Well, studies show that this vaccine can improve quality of life. Just follow the plan I've given you and let Billy receive the vaccine.
- NOT!
- **A BETTER EXAMPLE**
- Patient: Everyone makes it sound so easy...just give my child the vaccine...that's it, just do it, no questions asked!
- HCP: You sound frustrated. You have been asked to make a lot of important decisions that can really impact your child's health and people don't seem to appreciate how overwhelming and difficult all of it can be.

# Principles of Motivational Interviewing

## DEVELOP DISCREPANCY

- Good things and less good things about change
  - Pros and cons
  - One the one hand...on the other hand
  - Throw system out of kilter
  - Restate the discrepancies heard
- 
- Creates dissonance...DISSONANCE IS PERSUASIVE!
  - REMEMBER: Without discrepancy NO MOTIVATION!
  - **DOUBLE-SIDED REFLECTIONS WORK WELL HERE!**

# Developing Discrepancy Resolving Ambivalence/Building Motivation - Evoking

**Patient:** *“I think cancer prevention is important but I’m terribly worried about the side-effects for my child.”*

**Provider:** *“You’re more than just a little worried about the side-effects AND cancer prevention is important to you. Tell me more about what makes cancer prevention a priority for you.*

# POWER PRACTICE

**Strategically reflecting change talk over non-change talk when the patient is expressing both.**

Patient: Hmmmmm, well cancer does run in my family. It just seems like Suzie is just too young for the HVP shot.

HCP: On the one hand you are concerned that Suzie is too young for the HVP shot, on the other hand, preventing cancer is important to you because cancer runs in your family. What are your thoughts?"

# Resolving Ambivalence/Building Motivation *The MI-Way*: Evoking

Strategically reframe the non-change talk

## Example:

**Patient:** *“I think cancer prevention is important but I’m terribly worried about the side-effects for my child.”*

**Provider:** *“Cancer prevention is clearly important to you. If you thought you could manage side-effects for your child, you would be much more likely to get the vaccine.”*

**Patient:** *“Yes.”*

# How Would You Reframe This?

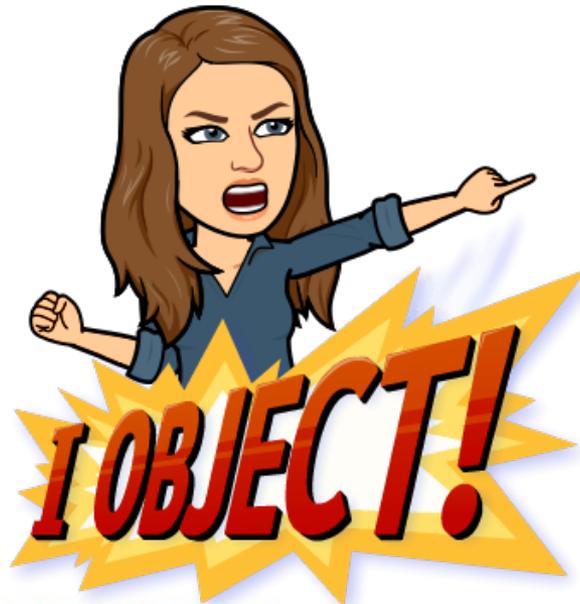
## **Strategically reframe the non-change talk.**

Patient: Hmmmmm, well cancer does run in my family. It just seems like Suzie is just too young for the HVP shot.

HCP: : Since cancer runs in your family, you realize the importance of protecting Suzie. If you could justify her receiving the vaccine at such a young age, you'd do it. How do you feel about that?"

# Resistance

- Psychological Reactance (J.W. Brehm) – a motivational reaction that occurs when a person feels that their sense of freedom or personal choice is being threatened or the range of alternatives is being limited.



# Principles of Motivational Interviewing

- **ROLL WITH RESISTANCE**
- Resistance is not directly opposed
- Use understanding, empathy
- Get clarification
- New perspectives are invited, not imposed
- Don't give person a reason to resist more
- Resistance is a signal to respond differently
- Repeat back your understanding
- The person is a primary resource in finding answers and solutions

# Here's a REALLY GOOD BAD Example:

Patient: I don't like taking medicine....

Provider: You know you need to take this

What bothers you about giving Billy the HPV vaccine?

# Rolling with Resistance

- **Common Cues to Resistance**

- Arguing
- Interrupting
- Ignoring/not paying attention
- Crossing arms
- Being dismissive (“whatever!”)

- **MI-Adherent Response**

- Slow down
- Come along side and try to understand
- Reflect what you hear
- Support autonomy – *“I can’t make you get the HPV vaccine for your son, and I wouldn’t want to. What I can do is share my view and provide any information that will be helpful to your decision. In the end, this is your decision that only you and your son can make.”*



# Rolling with Resistance

## Example

**Parent:** *“I think Lisa is way too young for an HPV vaccine. I mean, she’s only 11 years old. For heaven’s sake, she’s still playing with dolls. I think you doctors are pushing this too soon. Someday, she may consider getting vaccinated, but not now.”*

**Provider:** *“It’s really hard for you to believe that the HPV vaccine is right for Lisa when she’s so young. That just doesn’t make any sense at all.” (Simple Reflection)*

**Parent:** *“Exactly!”*

**Provider:** *“Well, I can certainly understand why you would feel that way (affirmation). May I share the reasoning behind vaccinating early (autonomy, supportive education) – then you can tell me what you think?” (open-ended question collaboration)*

# Support Self-Efficacy

- A person's belief in the possibility of change
- Actual changes as well as contemplative changes
- SE is a self fulfilling prophecy....
- What type of MI skills would be used to support self-efficacy?
- Affirmations
  
- Example:
- "Mrs. Smith, I think its terrific that you are taking you med every day as we've discussed." (Affirmation)

# Support Self-Efficacy

## Example:

**“I am really glad to hear that you are thinking more about giving Billy the HPV vaccine. What has you thinking more about that?”**

### *When to use?*

*To reinforce both thoughts and actions regarding behavior change*

# Incorporating MI into an HPV Vaccine Conversation

# The Approach: Elicit-Provide-Elicit

- **Elicit**

- Ask parent what they already know or would like to know more about.
- Ask permission to offer information.

- **Provide**

- Give information in a neutral, nonjudgmental fashion.
- **Avoid “I” and “You”.**

- **Elicit**

- Gather parent’s understanding of the feedback provided.
- Ask what else the parent would like to know.
- Ask what they make of the information.

# HPV Vaccine E-P-E MI Scripting

## Elicit:

*Ask what the patient knows or would like to know. Or ask if it's okay if you offer them information.*

- "What do you already know about the side effects of the HPV vaccine?"
- "Do you mind if I express my concerns about not getting the vaccine?"
- "Would you be open to me sharing some information about the HPV vaccine with you?"
- "Would it be ok if I tell you what we know?"
- "Would you be open to learning more?"

## Provide:

*Give information in a neutral, nonjudgmental fashion. Avoid "I" and "You".*

- "Research suggests..."
- "Studies have shown..."
- "Others have benefited from..."
- "Folks have found..."
- "What we know is..."

## Elicit:

*Gather what the patient's interpretation was, what else they would like to know, or what they make of the information.*

- "How does this impact your decision?"
- "What does this mean to you?"
- "How can I help?"
- "Where does this leave you?"
- "What else would be helpful for you to know that would help you make your decision?"
- "Where do we go from here?"

"I can hear that you are concerned about the side-effects of the HPV vaccine especially given that Lisa has had reactions to other shots. Well, that's perfectly understandable. May I share some information that might ease some of your concerns?"

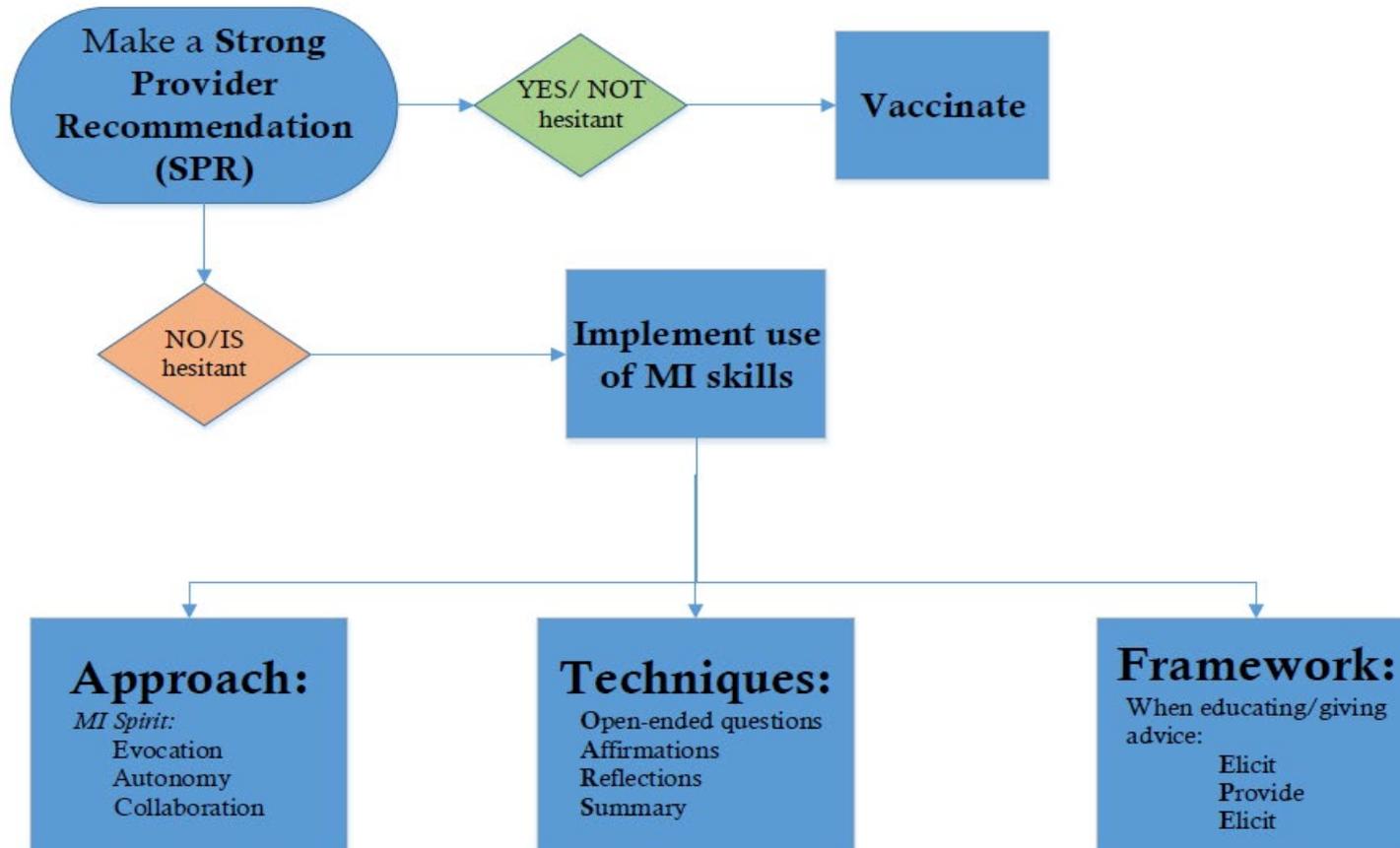
"The HPV vaccine has been studied in clinical trials since 2006 and has been found to be safe and effective in preventing HPV. Most importantly, the HPV vaccination prevents several types of cancer in both men and women and provides the single best defense against cervical cancer. If Mary were my daughter, I would not hesitate to recommend this vaccine for her."

"I'd love to know how this information resonates with you and if you feel like it has eased some of your concerns regarding the potential side-effects."

"Where do we go from here? Are you ready to move forward with getting Mary the HPV vaccine?"

# Where MI Fits In

## HPV Vaccine Provider Communication Flow Sheet



# Traditional (Non-MI) Style of Conversation

Traditionally, when a provider recommends the HPV vaccine, the parent/caregiver responds in 1 of 3 ways:

- **“Yes”** (acceptance of the recommendation) and the vaccine is given
- **“No”** (resistance to the recommendation)  
OR **“Not Sure”** (hesitancy/ambivalence about the recommendation)

# Suggested Conversation Style (Use of MI as Necessary)

## Make a Personalized, Strong Provider Recommendation

*“So I see that Mary has just turned 12. Since you’re here, this would be a great time for her to get those vaccines which are recommended at that age. These are Tdap, HPV and Meningococcal. What questions, if any, do you have? (can add “about our plan)*

# Continuing the Conversation: Using MI

The parent/caregiver responds in 1 of 3 ways:

1. “**Yes**” and the vaccine is given
2. “**No**” (**resistance to the recommendation**) OR
3. “**Not Sure**” (**hesitancy/ambivalence about the recommendation**)
  - Explore parents thoughts about the vaccine (**evocation using open-ended questions**)
  - Reflect back cons and/or pros of what is stated (**express empathy, develop discrepancy, roll with resistance**)
  - Engage in a two way conversation (**collaboration**) and provide an equal and common ground for beginning the discussion.
  - Support autonomy and parent’s decision
  - (use affirmations)

# Continuing the Conversation: Using MI

The provider begins the conversation with an exploration of the parent's thoughts about the vaccine (**evocation**).

*“It seems like you may have some questions or concerns about the vaccines Mary is due for today. I’d like to hear what you are thinking. How would you feel if we discussed those?”*

The provider reflects back what the parent is saying to convey understanding (**empathy**) and summarizes what has been heard before offering, with permission, additional information. The provider also **support autonomy**.

*“You are concerned about the side-effects of the HPV vaccine given that Lisa has had reactions to other shots. That’s perfectly understandable. **What would you think about me sharing some information** that might ease some of your concerns?” Ultimately, of course, the final decision is yours.”*

# Closing the Conversation the MI-Way: Planning

- Summarize all you have heard and then ask the key open-ended question: *“So where are you now?”*
  - Parent is ready now: **Vaccinate today**
  - Parent is ready but not now: **Pick a date and schedule the first appointment**
  - Parent is still unsure: **They may need more time to think things over.**
  - Parent does not want the vaccine: **Reinforce autonomy and encourage them to reconsider in a year or two since the vaccine can be given up to age 26.**

# In Summary

- This style allows parents to feel heard and respected.
- When parents don't feel pressured they are more likely to explore openly and honestly their thoughts about the vaccine.
- May lead parents to see the situation in a new way and to form different conclusions.
- **Whole process takes only 3-5 minutes!**

# QUIZ TIME!

What are the four principles of MI?

Express Empathy

Develop Discrepancy

Roll With Resistance

Support Self-Efficacy

# QUIZ TIME!

What is the “SPIRIT” of MI?

# AGAPE

# QUIZ TIME!

The goal of MI is to move a person toward the positive side of \_\_\_\_\_ and to elicit \_\_\_\_\_.

Ambivalence

Change Talk

# QUIZ TIME!

Name the four skills used in MI

**O**pen-Ended Questions

**A**ffirmations

**R**eflections

**S**ummaries

# QUIZ TIME!

When considering the HPV vaccine, when would MI NOT be necessary? When would it be necessary?

**Motivational Interviewing is not necessary when parents are ready to have their child vaccinated! But ideal for situations where parents are hesitant or resistant to the recommendation.**

# Quiz Time!

Name the List the three aspects of the framework for using MI when the provider wants to educate a patient regarding the HPV vaccine?

Elicit

Provide

Elicit

# Resources

## <http://motivationalinterviewing.org/motivational-interviewing-resources>

- ACOG Committee Opinion No. 423: motivational interviewing: a tool for behavioral change. *Obstet Gynecol.* 2009;113(1):243-246.
- Borrelli B, Tooley EM, Scott-Sheldon LA. Motivational Interviewing for Parent-child Health Interventions: A Systematic Review and Meta-Analysis. *Pediatr Dent.* 2015;37(3):254-265.
- Danchin M, Nolan T. A positive approach to parents with concerns about vaccination for the family physician. *Australian Family Physician.* 2014;43(10):690-694.
- Dempsey AF GK, Lockhart S, Pyrzanowski J, Campagna E, Reno J, O'Leary ST. Impact of Motivational Interviewing Training on Providers Communication about Adolescent HPV Vaccination. *Pediatric Academic Societies Meeting*; April 30-May 3, 2016, 2016; Baltimore, MD.
- Jessee PO, Nagy MC, Downs C. Parents' Perceptions of Physicians' Communicative Style. *Early Child Development and Care.* 2001;169(1):97-108.
- Leask J, Kinnersley P, Jackson C, Cheater F, Bedford H, Rowles G. Communicating with parents about vaccination: a framework for health professionals. *BMC Pediatrics.* 2012;12(1):1-11.
- MacDonald N, Finlay J. Working with vaccine-hesitant parents. *Paediatrics & Child Health.* 2013;18(5):265-267.
- Miller WR, Rollnick S. *Motivational interviewing : preparing people to change addictive behavior.* New York: Guilford Press; 1991.
- Miller WR. Motivational interviewing: research, practice, and puzzles. *Addict Behav.* 1996;21(6):835-842.
- Nyamathi A, Sinha K, Greengold B, Cohen A, Marfisee M. Predictors of HAV/HBV vaccination completion among methadone maintenance clients. *Research in Nursing & Health.* 2010;33(2):120-132.
- Nyhan B, Reifler J, Richey S, Freed GL. Effective messages in vaccine promotion: a randomized trial. *Pediatrics.* 2014;133(4):e835-842.
- Nyhan B, Reifler J. Does correcting myths about the flu vaccine work? An experimental evaluation of the effects of corrective information. *Vaccine.* 2015;33(3):459-464.
- O'Keefe M, Sawyer M, Robertson D. Medical student interviewing skills and mother-reported satisfaction and recall. *Med Educ.* 2001;35(7):637-644.
- Pediatrics TAAo. AAP Immunization Resources Best Practices: NVAC Standard 7. August 2013; [https://www.aap.org/en-us/Documents/immunization\\_nvac\\_standard7.pdf](https://www.aap.org/en-us/Documents/immunization_nvac_standard7.pdf) . Accessed 3/23/16, 2016.
- Pediatrics TAAo. Immunization: Vaccine Hesitant Parents. [Website]. 2015; Communication tips and techniques for use with vaccine hesitant parents Available at: <https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/immunization/Pages/vaccine-hesitant-parents.aspx> . Accessed 3/23/16, 2016.
- Reich J. Of natural bodies and antibodies: Parents' vaccine refusal and the dichotomies of natural and artificial. *Soc Sci Med.* 2016;157:103-110.
- Rubak S, Sandbaek A, Lauritzen T, Christensen B. Motivational interviewing: a systematic review and meta-analysis. *Br J Gen Pract.* 2005;55(513):305-312.
- Sindelar HA, Abrantes AM, Hart C, Lewander W, Spirito A. Motivational interviewing in pediatric practice. *Curr Probl Pediatr Adolesc Health Care.* 2004;34(9):322-339.
- Westra HA, Aviram A. Core skills in motivational interviewing. *Psychotherapy (Chic).* 2013;50(3):273-278.
- Wissow LS, Roter D, Bauman LJ, et al. Patient-provider communication during the emergency department care of children with asthma. The National Cooperative Inner-City Asthma Study, National Institute of Allergy and Infectious Diseases, NIH, Bethesda, MD. *Med Care.* 1998;36(10):1439-1450.

# Practice Sessions