Slide 1

How can we use qualitative research to inform knowledge, attitude, and practice surveys?
如何利用定性研究开展KAP调查

Allison Kennedy, MPH
Epidemiologist 流行病学专家
Linda Quick MD, MPH
Medical Epidemiologist 医学流行病学专家

National Center for Immunization and Respiratory Diseases
US Centers for Disease Control and Prevention

美国CDC国家免疫和呼吸道疾病中心

National Center for Immunization & Respiratory Diseases
Immunization Services Division

Slide 2

Fig. 13. MMR Uptake at 16 months vs. mothers' confidence (completely safe/slight risk) in MMR vaccine.
图13. 16月龄麻腮风疫苗接种情况与母亲对MMR疫苗的信任情况（十分安全/轻微风险）

蓝线代表麻腮风疫苗接种情况
红线代表母亲自信情况
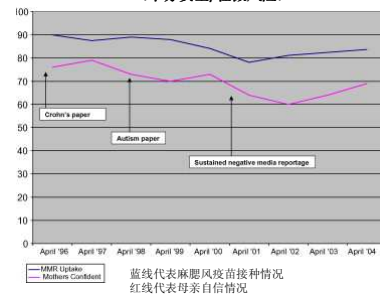
From: A. Smith, et al. Tracking mothers' attitudes to MMR immunisation, 1996-2006. Vaccine. 2007;25(20):3996-4002.
本图的来源文章

Slide 3

Outline 提纲

- **Qualitative and quantitative research**
  定性研究与定量研究
- **Mixed methods research** 定性定量混合研究
- **Qualitative research: Focus groups**
  定性研究：焦点小组访谈
  - Definition, strengths, and limitations 定义、优势及局限
  - Steps in data collection and analysis 数据收集和分析的步骤
- **Example: Developing educational materials**
  举例：开发健康教育材料
  - Communication resources for health care providers
    为基层医务工作者提供信息沟通资源
  - Communication resources for parents 为父母提供沟通材料

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Slide 4

Qualitative Research
定性研究

- "Qualitative research methods are strategies for the systematic collection, organization, and interpretation of <u>textual material obtained from talk or observation</u>, which allow the exploration of social events as experienced by individuals in their natural context."
  "定性研究方法的策略是将对话或观察内容进行系统性地收集、组织、解释，从而形成书面文字"
- Qualitative results cannot be generalized to a larger population
  定性研究的结果不能代表大规模人群
- Qualitative results are useful for better understanding the "how" and "why" research questions 定性研究的结果回答的是（更有利于理解）"怎么做"和"为什么"这样的研究问题。

Malterud, C. Lancet. 2001;358(9279):397-400.

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Slide 5

Quantitative Research

- **Qualitative data = language (or text) based,**
  定性数据=基于语言（或者文字）
  quantitative data = numeric
  定量数据=数字
  - Categorical (e.g., 1=strongly agree to 5=strongly disagree)
    分类（如，1=非常同意到5=非常不同意）
  - Continuous (e.g., age, weight, income)
    连续性（如，年龄、体重、收入）
  - Quantitative data are analyzed using statistical methods
    通过统计学方法分析定量数据
  - Results from quantitative data can be generalized upon
    定量数据的结果具有代表性

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Slide 6

Mixed Methods Research
混合方法研究

- **Mixed methods research is using both qualitative and quantitative approaches or methods in a single study**
  混合方法研究是指在一项研究中既采用定量又采用定性的过程或方法
- **Used to take advantage of the strengths of both qualitative and quantitative research**
  通常集合了两种方法的长处

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Getting Started
开始阶段

- What is the best way to answer our research question?
  能回答研究问题的最好途径是什么？
- What resources do we have available?
  我们目前有什么可用的资源？
- How will the qualitative and quantitative components interact?
  定性和定量部分将会如何相互影响？
- Will one have a higher priority or will they be equal?
  哪一种应首选还是都一样？
- What will be the timing of the qualitative and quantitative components? 两部分的时间如何分配？
- How and where will they mix? 如何以及在哪将二者融合？
  - Design? Data analysis? Data collection? Interpretation?
    设计？数据分析？数据收集？转录？

Source: Creswell et al. Best Practices for Mixed Methods Research in the Health Sciences. OBSSR.

Exploratory Sequential Design
探索性序贯设计

- Done in two phases 分为两阶段进行
- <u>Qualitative</u> data collected and analyzed first and is given priority 优先收集和分析 定性数据
- <u>Quantitative</u> data collected and analyzed second and is used to help test or generalize qualitative results
  随后 收集和分析定量数据，从而进行检测或提炼定性的结果
  - For example, focus groups are conducted to help refine questions and concepts to be used in a follow-up survey
    例如，焦点小组访谈可用于定义问题和概念，从而继续进行随后的调查

Source: Creswell & Plano-Clark. Designing and Conducting Mixed Methods Research, 2nd Ed.

Exploratory Sequential Design
探索性序贯设计

- Strengths: 优势
  - Easy to implement and explain 容易实施和解释
  - Can adapt the second phase as needed based on results from the first phase
    可以通过第一阶段的结果调整第二阶段内容
  - Can help with buy-in from an audience that is used to quantitative data 可以将从听众（受访者）收集的信息用于定量数据
  - Can lead to stronger data collection instruments
    可以引导出更强大的数据收集工具（量表）
- Limitations: 局限
  - Takes time 消耗时间
  - Can be difficult to secure approval because phase 2 is not planned in detail until phase 1 is complete
    比较难获得批准，因为在第一阶段完成前很难对第二阶段进行详细设计

Source: Creswell & Plano-Clark. Designing and Conducting Mixed Methods Research, 2nd Ed.

定性研究：焦点小组访谈

Qualitative research: Focus groups

What are Focus Groups?
什么是焦点小组访谈？

- A group of six to twelve people 一组约6-12人
- Participants are similar in one or more ways that are of interest to the researcher
  被访者在研究者所关心的领域有一条或多条相似处
- Moderator guides participants through a focused discussion 在焦点讨论时，通过主持人引导被访者
- Topic of the discussion is clearly defined
  讨论的话题已有清楚的定义
- The purpose is to gather information directly from group members, in their own words, about their attitudes, beliefs, and behaviors 目的是直接通过小组成员自己的语言收集信息，包括态度，信念，行为等

Renrastery World Training Policy. Program and Development and Evaluation.

Strengths of Focus Groups

焦点小组访谈的优势

- Low cost 低成本
- Quick results 快速产生结果
- Flexible enough to allow exploration of unexpected issues and insights
  足够灵活，能对未预料到的问题和看法的出现进行探索
- Group format adds depth to the data as group members build on each other's comments
  以小组的形式增加数据深度，因为小组成员的评论可以相互影响

USAID Center for Development Information and Evaluation. Conducting Focus Group Interviews.

Limitations of Focus Groups
焦点小组访谈的局限

- **Are subject to moderator bias** 主持人的偏倚
- **Can be sidetracked by strong or vocal individuals who speak for the group**
  小组中的强势或善表达成员可能会将话题引偏
- **Can be difficult to analyze** 数据难以分析
- **Data, while rich in detail, can't be generalized to the larger population**
  过于细节化的数据无法代表更广泛的人群

USAID Center for Development Information and Evaluation. Conducting Focus Group Interviews.

When to Use Focus Groups
何时使用焦点小组访谈？

- **To generate study questions for new areas of research, including developing topics or questions for a survey**
  在新领域产生新的研究问题，包括确定一项调查的主题或问题
- **To help interpret survey findings**
  帮助解释研究结果
- **For program development or evaluation**
  项目进展或评估
- **To generate knowledge about how attitudes are formed and expressed**
  总结态度如何形成和表现的相关知识

Burnett. Focus Group Tips for Beginners, 2002

Steps for Conducting Focus Groups
焦点小组访谈步骤

- **Develop the question guide and obtain project approval** 制定问题提纲并取得项目批准
- **Select and recruit participants**
  筛选和招募参与者
- **Select a moderator and team** 选取主持人和团队
- **Conduct the group** 实施
- **Organize the data** 整理数据
- **Analyze and report the findings** 分析汇报结果

Focus Group Question Guide
焦点小组访谈问题提纲

- **Used by the moderator to guide the discussion, while still allowing for discussion**
  用于协助主持人引导讨论，且支持讨论
- **Five types of questions:** 五类问题
  - Opening 开始性问题
  - Introductory 介绍性问题
  - Transition 过渡性问题
  - Key questions 关键问题
  - Ending questions 结束性问题
- **Also includes a formal introduction and closing**
  当然也可包括正式的介绍语和结束语

Rennekamp & Nall. Using Focus Groups in Program Development and Evaluation.

Pilot Testing 预试验

- **All data collection instruments should be pilot tested**
  所有数据收集工具必须通过预试验来测试
- **This is your opportunity to identify which questions work and which questions need revision**
  这是你确定哪些问题可行，哪些问题需要调整的机会
- **Schedule sufficient time for pilot testing and revisions in your timeline**
  为预试验和修改留出足够的时间

Focus Group Sampling 样本选取

- **Focus groups use purposive sampling** 采用目的抽样
  - Different than random sampling 与随机抽样不同
  - Looking for people with the characteristics of interest for the research question 寻找具有所关注的研究问题特征的人群
  - Not the same as convenience sampling 不同于便利抽样
- **Group members should be homogeneous regarding the topic of study (e.g. all mothers, doctors, etc.)**
  小组成员应与研究主题一致（如，母亲，医生，等等）
- **Under most circumstances, group members should not know each other outside of the group setting**
  （多数情况下，小组成员在形成小组前应互不认识）

Focus Group Recruiting 人员招募

- Can recruit participants many different ways, including telephone, letter, in-person, or through existing affiliations 可通过多种方式招募参加者，包括电话、信件、当面、或通过现有人员
- Should always screen participants to make sure they have the characteristics of interest and understand what they are being asked to do 应不时地筛选参加者，以保证他们具有想要关注的特征，并能理解他们需要干什么
- Let participants know when and where the group will take place and how long the group will take 让参与者了解小组访谈何时何地开展以及该访谈持续多久
- Always follow up the day before as a reminder 经常总结前一天的内容做为 提醒
- Typically, we over-recruit to account for attrition 一般来说，我们应招募多于实际要求的人数，以防止中途缺失

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Focus Group Moderator 主持人

- Moderator leads the discussion 主持人引导整个讨论
- A good moderator: 一个合格的主持人
  - Has a working knowledge of the topic (but does not have to be an expert) 有相关的知识（但并不需要是该领域的专家）
  - Remains neutral and does not express personal opinions 保持中立，不发表个人观点
  - Interacts well with participants 与参与者可以很好地互动
  - Shows empathy and respect for participants and their opinions 对参与者和他们的观点表示同情和尊重
  - Is a good listener 一个好的倾听者
  - Is skilled at probing for follow-up information 善于导入接下来的信息
- The moderator's assistants will take notes and run the audio tape (if necessary) 主持人助手进行记录或者录音（在需要时）

Rennekamp & Nall. Using Focus Groups in Program Development and Evaluation.

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Conducting the Group 实施小组访谈

- Should be conducted in person, although in certain circumstances can be done over phone or Internet 原则上应面访，不排除特殊情况下需电话或者网络访谈
  - This requires a very experienced moderator because you are losing face-to-face interaction 这种情况下要求主持人具有十分丰富的 经验，因为此时你没有面对面地互动
- Participants should be given informed consent documents to sign, along with an introduction from the moderator that clearly states that the groups are voluntary 参与者应在知情同意材料上签字，同时主持人还应清晰地告知自愿原则
- Groups should last 60 to 90 minutes 访谈持续60-90分钟

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Conducting the Group 实施小组访谈

- Participants should be given reimbursement for their time and travel, as well as snacks, beverages, and parking fees as appropriate 参与者应得到相应的时间消耗和出行补偿，同时可在允许的情况下提供零食、饮料，停车费等
  - Parents should be asked to leave children at home, since this is a big distraction to the group 父母应将孩子留在家中，否则会造成分神。
- Participants should be arranged in a circle or around a table so that everyone can see the others in the discussion 参与者应围坐成圈状或围着桌子坐，这样在讨论中，每个人可以看见其他人

租

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Conducting the Group 实施小组访谈

- The group begins with an introduction from the moderator 小组访谈由主持人进行以下介绍后开始
  - Group is voluntary 自愿原则
  - Should not repeat what was said outside the group 离开小组后不重复访谈内容
  - Should respect each other's opinions, but also feel free to agree and disagree with each other 尊重他人观点，但可同意也可不同意他人观点
  - Tell the participants if the group is being audio or video recorded 告知参加者 访谈过程会被录像或录音
- Once the participants agree, the moderator's assistant should start the tape recorder and begin taking notes 在征求参加者同意后，主持人助手开始进行录音和记录

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Conducting the Group 实施小组访谈

- The moderator should follow the same question order in all of the groups in order to facilitate analysis 主持人对各小组应遵循同样的问题顺序以便于分析
- However, the moderator should also be flexible enough to probe or follow up on interesting responses as they occur 然而，当其他所关注的回答出现时，主持人也应灵活地导入或者跟进所关注的回答
  - These can then be brought up for discussion in later groups 这些回答可以加入到随后其他的小组访谈中
- At the end, the moderator should formally close the group and thank the participants 最后，主持人应正式地结束访谈 并向参与者致谢

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Organizing the Data 数据整理

- As soon as possible after each group, the assistant should check the quality of the tape and save a backup copy 每次小组访谈完成后，助手应立即检查录音效果并备份
- The moderator, assistant, and any observers should debrief after each group in order to fill in the notes 主持人、助手和任何观察者应在每组结束后进行总结以完善记录
- Ideally, recordings should be transcribed verbatim 理想情况下，录音应逐字转录
  - This is very time consuming and usually subcontracted out to a professional transcriptionist 这十分消耗时间，因此可聘请专业转录人员
  - It is important for the transcriptionist to have a clear recording so that they can tell who is talking 应提供转录人员一份清晰的录音以便其分清是谁在发言

Analyzing and Reporting the Results 分析和汇报结果

- There are three steps to data analysis: 数据分析3步骤
  - Indexing: Reading and labelling relevant text 目录：标注至相应的字段
  - Management: Sorting similarly coded pieces of text into groups; this can be done manually or with a computer 整理：将近似的字段分组归纳，可人工也可通过电脑
  - Interpretation: Drawing meaning and conclusions from the sorted text 翻译：通过归类的字段提炼和总结
- Results should be described systematically with a focus on the research question and illustrative quotes from participants 应针对研究问题系统地报告结果，并标注出引自参与者

Rennekamp & Nall. Using Focus Groups in Program Development and Evaluation.

Example: Handout on data analysis

举例：分发数据分析材料

举例：针对医务人员和父母的沟通材料

Example: Communication resources for health care providers and parents

Why is communication in the immunization program so difficult?
免疫规划项目中，为何沟通如此困难？

- "When prevention works, nothing happens" "当预防起作用时，什么都不会发生"
- Dynamic, changing 动态的，改变中
- Competing and conflicting 竞争和冲突
  - Health messages 健康信息
  - Guidance and advice 指导和建议
  - Purposes and objectives 目的和目标
- Many places to find and get information 可以通过多种渠道寻找和获取信息
- Different groups of parents = different interests, different needs 不同父母=不同关注点，不同需求
- Time is often limited 时间总是有限的

Photo of healthcare professional giving a shot

What US CDC did to address the challenge of communicating about immunizations
美国CDC如何得出预防接种沟通中的挑战

- Qualitative research with health care providers 通过在医务工作者中进行定性研究
  - 2008 in-depth interviews with pediatricians and family physicians 2008年，在儿科医生和家庭医生中进行个人深入访谈
  - 2010 pilot evaluation of educational materials with Washington state health care professionals 2010年，在华盛顿州的医务人员中预评估健康教育资料
  - 2010 in-depth interviews to discuss provider resources 2010年，通过个人深入访谈讨论服务提供者资源
- Quantitative research with health care providers 在医务工作者中进行定量研究
  - 2009 survey of pediatricians and family physicians (partnership with University of Colorado) 2009年，调查儿科医生和家庭医生 （与大学合作）
  - 2012 survey of pediatricians and family physicians (partnership with University of Colorado) 2012年，调查儿科医生和家庭医生 （与大学合作）

What US CDC did to address the challenge of communicating about immunizations
美国CDC如何得出预防接种沟通中的挑战

- ❑ Qualitative research with parents 父母中进行定性研究
  - 2008 and 2009 focus group research with moms
    2008和2009年，在母亲中进行焦点小组访谈
  - 2008 online testing of draft educational materials with moms
    2008年，在母亲们中测试健康教育资料初稿
  - 2010 cognitive interviews and focus groups with moms to test readability of current Vaccine Information Statements (VIS) 2010，
    在母亲中进行认知访谈和焦点小组访谈，以测试现行的2010版疫苗信息表述的可读性
  - 2011 focus groups and intercept interviews with parents to discuss vaccination barriers and facilitators, and to test message concepts
    2011年，在父母中进行焦点小组访谈和现场访谈来讨论预防接种障碍和促进因素，并测试相关概念
- ❑ Quantitative research with parents 父母中进行定量研究
  - 2008-2012 mail surveys of parents' attitudes 2008-2012 邮寄关于父母态度的调查问卷
  - 2010 and 2012 National survey of parent vaccine attitudes and behaviors
    2010和2012 年，开展父母对疫苗态度和行为的全国调查

Research Guides CDC's Vaccine Communication Priorities, Strategies, and Messages
## 科学研究指导CDC决定疫苗交流的优先权、策略和信息

- Research indicated that: 研究提示
  - HCPs were seeking info to pass on to parents about immunizing their children 医务工作者寻求信息用于指导儿童家长对他们的孩子进行免疫接种
  - Parents did not know much about vaccine-preventable diseases and some questioned vaccine safety and efficacy 父母对疫苗可预防性疾病知之甚少，其中部分家长对疫苗的安全性和有效性提出疑问
  - Parents' most trusted source of vaccine information was their child's doctor or nurse 家长最信赖医生或护士 提供的疫苗信息
- So, we developed resources to meet these needs and support HCP-parent conversations 因此，我们制定了相应的资料来满足这些需求，支持医务人员与家长的对话

Materials: Provider Resources for Vaccine Conversations with Parents
资料：服务提供者与家长对话资源

- Understanding Vaccines and Vaccine Safety 理解疫苗和疫苗安全性
  - How Vaccines Work 疫苗如何发挥作用
  - The U.S. Recommended Childhood Immunization Schedule 美国推荐的儿童预防接种程序
  - Ensuring the Safety of U.S. Vaccines 美国疫苗安全性的保障
  - Understanding the Vaccine Adverse Reaction Reporting System (VAERS) 了解VAERS系统
  - Understanding MMR Vaccine Safety 了解麻腮风疫苗的安全性
  - Understanding Thimerosal, Mercury, and Vaccine Safety \
    了解硫柳汞、水银和疫苗的安全性
  - Understanding the Advisory Committee on Immunization Practices (ACIP) 了解免疫接种专家咨询委员会
- Diseases and the Vaccines that Prevent Them 疫苗和疫苗可预防疾病
  - 14 vaccine-preventable disease sheets 14种疫苗可预防疾病表格
    - 2 versions (one for high-information seeking parents and other plain language) 2种版本（一种适用于需了解详细信息的家长，另一种是简易版）
    - Plain language versions available in both English and Spanish 简易版有英文版和西班牙语版

"Talking with Parents about Vaccines for Infants"
与新生儿父母对话疫苗知识

- During the Office Visit 在常规门诊检查时
  - Take time to listen 耐心聆听
  - Solicit and welcome questions 诚恳并欢迎提问
  - Keep the conversation going 保持对话持续性
  - Use a mix of science and personal anecdotes 个人案例和科学性相结合
  - Acknowledge benefits and risks 承认风险和利益
  - Respect parents' authority 尊重父母的权威
- After the Office Visit 常规门诊检查后
  - Document parents' questions/ concerns 将家长的问题和关心点整理成档
 - Follow up a few days after the visit

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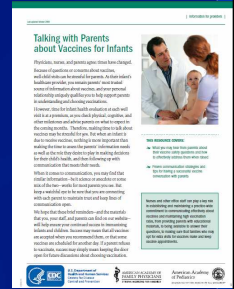
Provider-Targeted Materials 针对医务者的资料

Parent-Targeted Materials 针对家长的资料

Parent-Targeted Materials
针对儿童家长的材料

- **Providers requested more plain-language pieces for parents** 医务者尽量用通俗易懂的语言和家长沟通
- **More basic overview of disease and vaccine** 更多是疾病和疫苗的基本概述
- **Most have no story (or an abbreviated version)** 大多无故事（或者缩减版）
- **Clearly shows benefits and risks** 清楚展示效果和风险
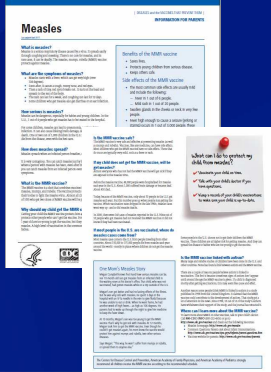
Parent-Targeted Materials

- **If you Choose Not to Vaccinate, Understand the Risks and Responsibilities** 如果您选择不接种疫苗，请了解相应的风险和责任
  - **Outlines possible risks for parents who choose to delay or decline a vaccine** 列出不接种或者延迟接种可能存在的风险

Thank you! 谢谢！
Questions? 有问题吗？

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone: 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov   Web: http://www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

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