Research on Vaccine Safety Knowledge, Attitudes and Beliefs

Beth Hibbs RN MPH
Vaccine Safety and Development
National Immunization Program
Centers for Disease Control and Prevention
Overview

- IOM efforts in Vaccine Risk Communication
- Public Perceptions about vaccine safety
- Health Care Provider Knowledge and Beliefs
- Media and vaccine safety
IOM Workshop on Vaccine Risk Communication 1996

- Risk communication is a dynamic two way process
- Goal should be informed decision making
- Often there is uncertainty about estimates of risk that should be acknowledged
Parent Perceptions of Vaccine Safety
Telephone Surveys

• Assessment of Parents understanding of vaccine info (1600 ) (Gellin 2000)
  – Immunization requirements important
  – MD recommendations most influential
  – 20% question if vaccines weakened the immune system

• Analysis of vaccine safety calls to the National Immunization Information Hotline (429) (Scott, 1999)
  – use multiple sources of information (1.25)
  – interested in detailed info on vaccine safety topics of interest
  – Personal experience with vaccine safety issue
Public Perceptions of Vaccine Safety
Focus Groups

• Vaccine risk /benefit communication (22) (Davis 1997)
  – 4 cities Shreveport, Rochester, Wichita, Albuquerque
  – Parent needs for info on side effects, contraindications and actions to be taken
  – Parents prefer short simply written pamphlets with graphics

• Emerging issues in Immunization (6) (Nowak 2000)
  – 3 cities San Jose, Kansas City, Houston
  – Safety Questions are generated from news media, friends/family, Internet, medical journals,
  – Parents desire info on side effects, additives, vaccine improvements, risk/benefit
Public Perceptions of Vaccine Safety

Interviews

• Maternal responses to intro of Hib (23) (Harrington 1999)
  – Barriers to adopting a new vaccine
    • suspicion, fear of vaccine overload, distress about # shots

• Texas survey on vaccines issues (4832) (Prislin 1998)
  – Factors in predicting immunization status
    • beliefs about vaccines ability to prevent disease
    • contraindications,
    • safety concerns
    • distrust of MD
    • natural immunity better
Public Perceptions of Vaccine Safety
Written Surveys

• HCP (1446) reasons for vaccine refusal in patients (Fredrickson 2000)
  – Fear from TV/media/word of mouth at 52%
  – Religious objections 28%
  – Philosophical objections 26%
  – Disease not harmful 26% (Fredrickson 2000)

• Mothering Magazine (294) (Meszaros 1996)
  – Common perceptions of a select group
    • Perceived ability to control children's susceptibility to disease.
    • Doubts about the reliability of vaccine safety information.
    • Preference for not immunizing
    • Recognition of community immunity benefits for unvaccinated
Health Care Providers

• MD survey 1500 Physicians (Freed 2000)
  – report parental interest in vaccine safety has increased
  – concerns voiced by parents = pain and short term reactions.
  – 85% MDs had not submitted a VAERS report in past year.
  – Physicians would like to see further vaccine safety research into
    • Additives in vaccines 69%, neuro effects of new vaccines 61%; chronic diseases 51%
  – Concern about liability issues were not significantly associated with most immunization behaviors. (Freed1998)
Health Care Providers (cont)

• Survey MD on safety perceptions (1500) (Bostrom 1998)
  – Estimated 80% had not seen or had reported to them a vaccine adverse event over 3 months.
  – Time spent discussing with patients
    • Contraindications 1.3 minutes (Average)
    • Adverse reactions 1.7 minutes (Average)

• Telephone survey of 1236 physicians on litigation concerns (Zimmerman 1998)
  – Most physicians encourage vaccination even if the parent was concerned about possible adverse effects.
The Media and Vaccine Safety

Media telephone survey of 21 Reporters (NPI 2000).

– focus on new vaccines, scientific studies, clinical trails, side effects/allergic reactions, controversies and shortages

– Prefer to receive information via e-mail or fax.

– Want information sources who respond immediately, can address a broad range of vaccine topics
The Media and Vaccine Safety (cont)

- Analysis of negative press reportage in Australia on vaccines 2440 news clips (Leask 1998)
  - Eight major themes were identified in Australian news stories: 1) Cover-up, 2) Excavation of facts, 3) Unholy alliance for profit; 4) Towards totalitarianism; 5) Us vs. them; 6) Poisons; 7) Cause of idiopathic ills; 8) Back to nature

- Analysis of impact of news media (8 countries) (Gangarosa 1998)
  - Negative news coverage = decrease immunization = outbreaks of disease.
Conclusions

• The vast majority of people support immunization practices and requirements.
• Most persons rely on their physician for information.
• Most parents are interested in general vaccine safety information.
• Providers want to be able to address questions and communicate issues relating to vaccine safety.
• The media are attracted to vaccine safety stories but may find it difficult to put stories into perspective.
CDC Ongoing Efforts

• Focus groups
• National Immunization Survey of parent KABs
• Vaccine Risk/Benefit Quantification Modeling
• Education Activities
• Communication
  – Partners
  – Vaccine Information Statements
  – National Immunization Information Hotline
    1-800-232-2522
  – Web Page