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## Diverse ways to enhance access to child health care in underserved rural communities: Implementing medical home models

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# Lack of economic and geographic access to health care

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- Nearly half (47%) of children in Arkansas, Idaho, Mississippi & West Virginia live at 200% or less of FPL<sup>1</sup>
- In these states, the rate of uninsured poor children (17 and under) ranges from 9.4% (WV) to 13.6% (ID)<sup>2</sup>
- Only 25% of rural communities have access to regular public transportation<sup>3</sup>
- Annually, ~3 million children miss at least one health care appointment due to lack of transportation<sup>3</sup>
  - Sources: 1 National Center for Children in Poverty-Columbia University; 2 Going Without: America's Uninsured Children. 2005. Internet: [www.rwjf.org/files/newsroom/ckfresearchreportfinal.pdf](http://www.rwjf.org/files/newsroom/ckfresearchreportfinal.pdf); 3 Children's Health Fund/Marist College Institute on Public Opinion Transportation Survey. 2006.



## Rural health disparities: Access

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- Health Professional Shortages:
  - ~ 25% of Americans live in rural counties and ~ 10% of physicians practice there
    - Disparity persists despite nationwide increase in number of practicing physicians
- Physician retention is low, leading to protracted shortages and disruptions to continuity of care
- Financial barriers to maintaining a practice include low population density and inability to pay for health care (poverty and lack of insurance)



# Rural health disparities: Health indicators

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- Rural childhood immunization rates continue to lag behind other communities
- Rural infant mortality rates are highest especially in the south and midwest
- Prenatal care most likely to be delayed – often not starting until the 3<sup>rd</sup> trimester
- Childhood obesity rates up to 50% higher
- Prevalence of dental caries higher for rural children, and adults have more tooth loss
  - Rural Health People 2010. Internet:  
<http://www.srph.tamhsc.edu/centers/rhp2010/default.htm>



## The medical home model

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- Characteristics: Accessible, continuous, comprehensive, family-centered, coordinated, compassionate, culturally effective
- Definition: “A *Medical Home* is not a building, house, or hospital, but rather an approach to providing health care services in a high-quality and cost-effective manner.”
- Care is provided without reference to ability to pay or to available reimbursements
  - American Academy of Pediatrics. *Pediatrics*. 2004; 113(5)



# The mobile medical unit (MMU) as medical home

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- MMUs are fully functioning clinics on wheels
- Travel to isolated and medically underserved populations to bridge barriers to access
- Schedule is regular and predictable
- Staffed with physicians, nurses, dentists, mental health professionals
- Linked to hospitals and community health centers for access to specialists
- 24 hour, 7 day per week coverage arranged



## The Children's Health Fund (CHF)

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- Operates 21 programs with a total of 28 MMUs in 13 states and Washington D.C.
- 4 pediatric MMUs and 1 dental MMU operate solely in rural counties
- Another 5 pediatric MMUs operate out of urban or suburban centers, but regularly serve populations in rural counties
- Two MMUs were re-configured for mental health services and are co-located with pediatric MMUs that serve rural communities



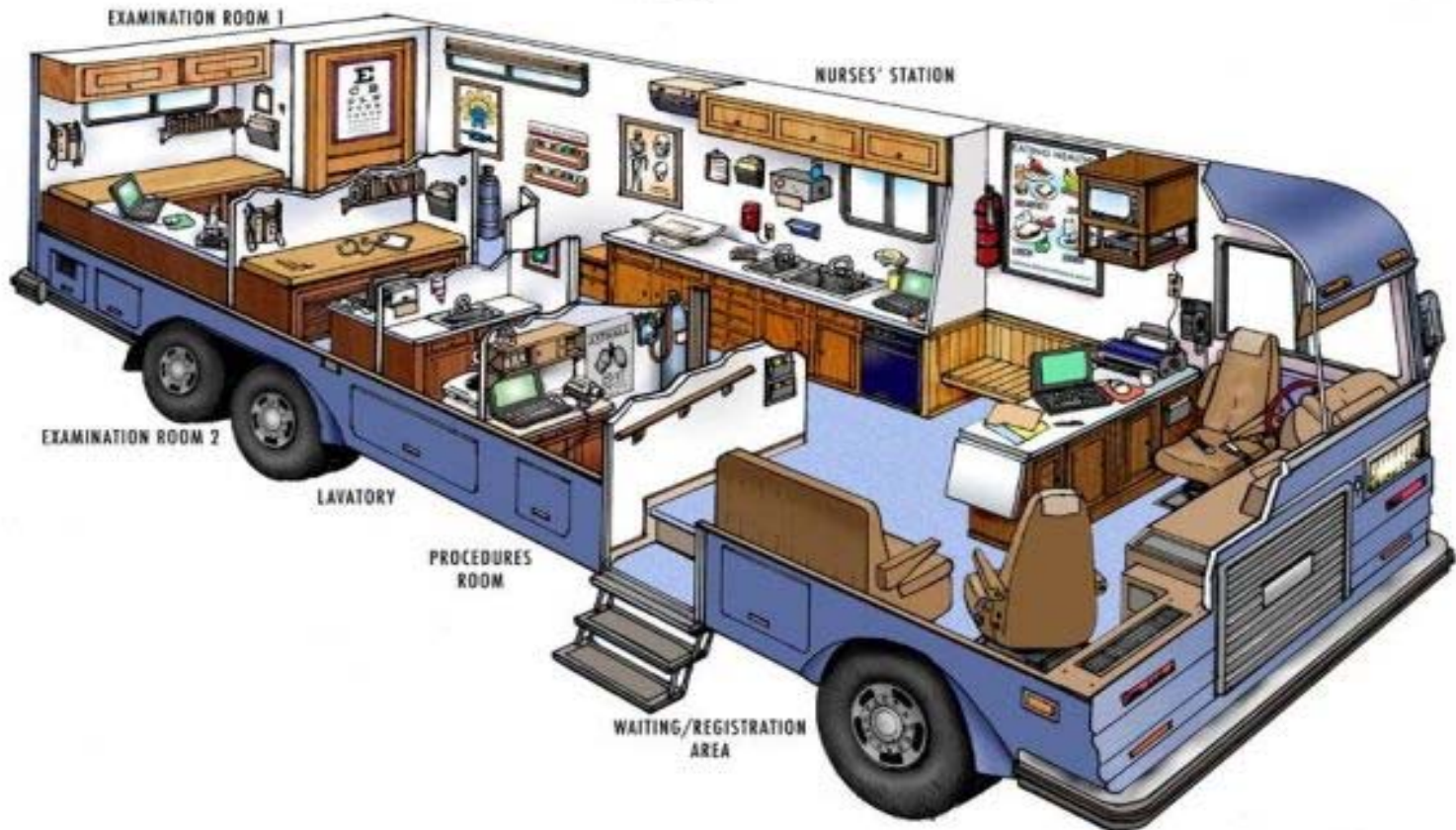
## CHF's mobile medical home model

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- Integrated, physician-led teams incorporating pediatric-focused, multi-disciplinary clinical, allied healthcare, and administrative staff
- Incorporation of Electronic Health Record systems modified for mobile clinical environment
- Coordinated assistance with transportation
- Integration of best-practice protocols
- Low-literacy health education materials
- Coordination with community resources to facilitate access to other needed services













# Mississippi Children's Health Project

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- **Location:** Clarksdale, MS—HPSA Designated
- **Delivery Model:** Combination of pediatric mobile, fixed-site, & school-based clinics
- **Primary Barriers to Care:** Transportation, uninsured and under-insured, limited health literacy/knowledge
- **Primary Health Risks:** Obesity, asthma, teenage pregnancy, poor prenatal care



# West Virginia Children's Health Project

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- **Location:** Huntington, WV—HPSA Designated
- **Delivery Model:** School-linked mobile clinic
- **Primary Barriers to Care:** Transportation, low population density, limited health literacy, other needs prioritized above routine health care
- **Primary Health Risks:** Obesity, poor oral health, asthma



# Arkansas Children's Health Project

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- **Location:** Lee County Arkansas—HPSA Designated
- **Delivery Model:** School-linked mobile clinic
- **Primary Barriers to Care:** Transportation, limited health literacy/knowledge, other pressing needs prioritized above non-urgent health care
- **Primary Health Risks:** Low immunization coverage, obesity, developmental and behavioral issues



# Idaho Children's Health Project

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- **Location:** Twin Falls, ID—HPSA designated
- **Delivery Model:** Pediatric mobile dental home connected to fixed-site medical clinics
- **Primary Barriers to Care:** Insufficient supply of oral health professionals, transient and undocumented populations, lack of insurance
- **Primary Health Risks:** Poor oral health, poor prenatal care, low immunization coverage



# Cumulative one-year utilization data (July 2006 - June 2007)

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- 29,076 patient encounters
- 9,996 immunizations given
- 3,293 dental encounters
- 1,047 specialist referrals
  - Reflects increased scope of practice in primary care and limited specialist availability and access
- 12,664 health education encounters
- 17,118 health education materials distributed





## Conclusions

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- Mobile medical units can bridge barriers to access in rural communities and provide “medical home” quality care
- Relationship with hospitals and community health centers contributes to continuity of care and 24/7 coverage
- Linkages with community resources including schools are essential
- Improved access to primary care is predicted to reduce health disparities

