


# Mobile health clinics

## ▶ Intervention in brief

<p><b>High and rising risk:</b></p>	<p><b>Mobile health clinics</b> provide a mix of preventive screenings, primary care, dental services, disease management, behavioral health care, and prenatal services on a mobile van for vulnerable populations. The goal is to reduce traditional barriers to access (e.g., transportation, time constraints, distrust of health care system), build trust, and improve outcomes.</p>
<p><b>Strength of evidence</b></p>	<div style="display: flex; align-items: center;">  <div style="margin-left: 10px;"> <p>Intervention has not been frequently studied within the last five years. Evidence is based on cross-sectional, retrospective, and cohort study findings.</p> <p>Medium</p> </div> </div>
<p><b>Impact</b></p>	<ul style="list-style-type: none"> <li>• <b>Decreased cost (wide range):</b> \$1.3M–6.7M costs saved; \$7-21:1 ROI; \$24,381,000 saved in quality-adjusted life years (QALYs)</li> <li>• <b>Decreased utilization:</b> 27% avoided ED visits; 33 percentage point decreased ED use for asthma symptoms; 2.1-day decreased length of stay</li> <li>• <b>Improved quality, clinical outcomes:</b> 10.7 mmHg and 6.3 mmHg decreased systolic and diastolic blood pressure, respectively</li> <li>• <b>Increased access:</b> 25% of patients referred to follow-up or social services; approximately 33% of patients visited van two or more times per year; 3-week earlier access to prenatal care</li> <li>• <b>Improved stakeholder satisfaction:</b> Not demonstrated</li> </ul>
<p><b>How to succeed</b></p>	<p>To build an effective mobile health clinic:</p> <ul style="list-style-type: none"> <li>• Target vulnerable, high-risk patients who face barriers to accessing care (e.g., lack of transportation, mistrust of health system)</li> <li>• Scope the services offered on the van according to unmet needs of target population (e.g., provide asthma services in community with high prevalence yet few specialists)</li> <li>• Establish the goal of the mobile clinic (e.g., temporary entry point, primary provider for certain services) and partner to fill remaining gaps in care (e.g., local community health center)</li> <li>• Hire staff that are from or reflect the communities they serve, including speaking the same languages, and ensure all staff are trained in cultural competency</li> <li>• Secure stable ongoing funding by tracking cost savings, reduction in health disparities, and improvement in community health and clinical quality measures to demonstrate ROI</li> </ul> <p>To learn more about developing an evidence-based approach, check out our Mobile Health Clinics: Improving Access to Care for the Underserved brief <a href="#">here</a>.</p>

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## ▶ Demonstrated impact

### Literature review summary

**Title:** Mobile Clinic in Massachusetts Associated with Cost Savings from Lowering Blood Pressure and Emergency Department Use

**Publication:** Health Affairs

**Date:** 2013

**Type:** Cross-sectional study

**Study population:** 5,900 patients who used the Family Van mobile health clinic services between 2010 and 2012

**Major findings:** The Family Van's services include preventive screenings, health education, and referrals to social services. The program developed deep, reciprocal relationships with local community health centers and community-based organizations who provide other clinical, non-clinical services.

- Avoided ED visits
  - Costs saved due to avoided ED visits (\$1,351,546 using ED visit cost of \$474)
  - Large number of clinic visits result in an avoided ED visit (27%)
- Decrease in systolic (10.7 mmHg) and diastolic blood pressure (6.3 mmHg)

**Source:** Full article [here](#).

**Title:** Mobile Health Clinics: Improving Access to Care for the Underserved

**Publication:** Advisory Board

**Date:** 2017

**Type:** Case study

**Study population:** Patients treated at the Family Van run by Harvard Medical School in Boston, Massachusetts

**Major findings:**

- Demonstrated ROI (\$21:1 based on the value of quality-life-years saved through prevention and avoided ED visits)
- Uncovered undiagnosed illnesses (2% of patients)
- Improved access to care:
  - Referrals to follow-up or social services (25%)
  - Patients who visit van two or more times per year (around 33%)

**Source:** Full article [here](#).

\*Note: Both studies analyze the same program, Harvard Medical School's The Family Van.

**Title:** Mobile Health Care Operations and Return on Investment in Predominantly Underserved Children with Asthma: The Breathmobile Program

**Publication:** Population Health Management

**Date:** 2013

**Type:** Retrospective analysis

**Study population:** 15,986 pediatric patients who visited any of the four Breathmobile Program mobile clinics in Southern California between 1995 and 2010

**Major findings:**

- Demonstrated ROI (\$500,000 per van, or \$6.7:1) calculated by ED costs avoided plus relative value of QALYs saved divided by the per year program costs
- Avoided annual emergency costs (\$2,541,639)
- Demonstrated value of QALYs saved (\$24,381,000)

**Source:** Full article [here](#).

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**Title:** Operational and Quality Outcomes of a Mobile Acute Care for the Elderly Service

**Publication:** Journal of Hospital Medicine

**Date:** 2011

**Type:** Cohort study

**Study population:** 8,094 hospitalized adults over age 65 admitted to an urban academic medical center

**Major findings:** Compared to traditional care, patients receiving mobile acute care services averaged 2.1 hospital days shorter (5.8 vs. 7.9 days), avoiding \$2,872 in costs (\$10,315 vs. \$13,187).

**Source:** Full article [here](#).

**Title:** Mobile Health Clinics: Improving Access to Care for the Underserved

**Publication:** Advisory Board

**Date:** 2017

**Type:** Case study

**Study population:** Pediatric patients treated by Mobile Care Chicago for asthma in Chicago, Illinois

**Major findings:** Mobile Care Chicago travels to 47 partner schools approximately once per month to conduct allergy assessments, provide education, and ongoing asthma treatment. Mobile Care Chicago:

- Generated cost savings (\$6.7 million saved for local health system)
- Decreased acute utilization (33 percentage point decreased hospital or ED use for asthma symptoms from 36% to 3% within one year of treatment)

**Source:** Full article [here](#).

**Title:** Use of a Community Health Van to Increase Early Access to Prenatal Care

**Publication:** Maternal and Child Health Journal

**Date:** 2007

**Type:** Cohort study

**Study population:** 235 underserved women delivering babies at a Stanford University hospital who did and did not receive prenatal care at Lucile Packard Children's Hospital Women's Health Van

**Major findings:** Patients utilizing the mobile health clinic initiated prenatal care three weeks earlier than women using other services.

**Source:** Full article [here](#).

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## Appendix

- Song, Z, et al., “Mobile Clinic in Massachusetts Associated with Cost Savings from Lowering Blood Pressure and Emergency,” *Health Affairs*, 32, no. 1 (2013), <https://doi.org/10.1377/hlthaff.2011.1392>.
- “Mobile Health Clinics: Improving Access to Care for the Underserved,” Population Health Advisor, Advisory Board, <https://www.advisory.com/research/population-health-advisor/studies/2017/mobile-health-clinics-improving-access-to-care-for-the-underserved>.
- Morphew T, et al., “Mobile Health Care Operations and Return on Investment in Predominantly Underserved Children with Asthma: The Breathmobile Program,” *Population Health Management*, 16, no. 4 (2013), <https://www.liebertpub.com/doi/10.1089/pop.2012.0060>.
- Faber JI, et al., “Operational and Quality Outcomes of a Mobile Acute Care for the Elderly Service,” *Journal of Hospital Medicine*, 6, no. 6 (2011), <https://www.ncbi.nlm.nih.gov/pubmed/21834119>.
- “Mobile Health Clinics: Improving Access to Care for the Underserved,” Population Health Advisor, Advisory Board, <https://www.advisory.com/research/population-health-advisor/studies/2017/mobile-health-clinics-improving-access-to-care-for-the-underserved>.
- Edgerley LP, et al., “Use of a Community Health Van to Increase Early Access to Prenatal Care,” *Maternal and Child Health Journal*, 11, no. 3 (2007), <https://link.springer.com/article/10.1007/s10995-006-0174-z..>