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Non-Emergency Use of Emergency Departments by Medicaid Beneficiaries

As of 2014, Medicaid covers 19.5% of the total United States population, and that number grows larger as more states expand their individual Medicaid programs.[1] Within the Medicaid population, 5% of beneficiaries account for 54% of annual costs and 1% of Medicaid beneficiaries account for 25% of total annual health care costs.[2] "Among this top 1 percent, 83 percent have at least three chronic conditions and more than 60 percent have five or more chronic conditions."[3] According to the Centers for Medicare & Medicaid Services (CMS), this concentration of spending is not unexpected, but "there is growing evidence that some of these high-cost patients are not receiving coordinated care, preventative care or care in the most appropriate settings."[4] Medicaid beneficiaries visit hospital emergency departments (ED) and use emergency services almost two times more than the privately insured population.[5] A report compiled by the National Center for Health Statistics in 2010[6] found that this was not due to widespread misuse of emergency facilities by Medicaid beneficiaries, but instead this study estimated that "non-urgent visits comprise only about 10% of all ED visits by Medicaid

[1] Smith, Jessica C. and Carla Medalia, U.S. Census Bureau, Current Population Reports, P60-253, Health Insurance Coverage in the United States: 2014, U.S. Government Printing Office, Washington, DC, 2015.
[2] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 2, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.
[3] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."
[4] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 2, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.
[5] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," *Department of Health and Human Services*, 1, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-01-16-14.pdf.
[6] Garcia et al., 2010, "Emergency Department Visitors and Visits: Who Used the Emergency Room in 2007?" CDC, NCHS Data Brief No 38., accessed March 21, 2016, http://www.cdc.gov/nchs/products/databriefs/db38.htm.

beneficiaries."[7] If emergency departments are not being misused by Medicaid beneficiaries, then this higher utilization "may be in part due to unmet health needs and lack of access to appropriate settings" such as alternative primary care facilities.[8] CMS statistics compiled in 2013 indicate that nearly 60% of Medicaid beneficiaries who were in the top 10% in terms of annual costs remained in the top 10% for the next two years.[9] This group of Medicaid beneficiaries is referred to as "super-utilizers."[10] A super-utilizer, in this context, is a Medicaid beneficiary who has four or more hospital admissions per year.[11] In addition, these super-utilizers often have unaddressed health issues and frequent encounters with multiple and diverse health care providers, coupled with behavioral and substance abuse issues that further exacerbate their plight.[12] In light of this information about super-utilizers, most states accept that "efforts to reduce ED use should focus not merely on reducing the number of ED visits, but also on promoting continuous coverage . . . and improving access to appropriate care settings."[13] The purpose of this report is to detail various care delivery strategies to help states and Medicaid providers better meet the needs of super-utilizers while also providing continuous and appropriate coverage to those who account for the top 10% of annual Medicaid costs.[14]

Strategy 1: Focus on "Super-utilizers"

Super-utilizers compose only 4.5% to 8% of all ED patients, but account for 21% to 28% of all visits to hospital emergency departments.[15] The goal of state programs aimed at reducing ED use by this population of super-utilizers must be to improve "beneficiary outcomes" and reduce

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[7] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," *Department of Health and Human Services*, 1, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-01-16-14.pdf.

[8] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," *Department of Health and Human Services*, 1, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-01-16-14.pdf.

[9] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 2, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

[10] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 1, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

[11] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."

[12] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."

[13] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," *Department of Health and Human Services*, 1, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-01-16-14.pdf.

[14] Copayments do not reduce Medicaid enrollees' Nonemergency Use of Emergency Departments -- Mortensen, Karoline, "Copayments Did Not Reduce Medicaid Enrollees' Nonemergency Use of Emergency Departments," *Health Affairs* 29, no. 9 (September 2010): 1643-650, accessed March 15, 2016, http://content.healthaffairs.org/content/29/9/1643.full.html.

[15] LaCalle et al, 2010, "Frequent Users of Emergency Departments: The Myths, the Data and the Policy Implications, *Annals of Emergency Medicine*, 56:42-48.

"unnecessary spending."[16] In order to achieve this goal, state programs must do the following: 1) identify the super-utilizer populations within the state; 2) identify what factors perpetuate high levels of ED use by these populations; and 3) estimate potential costs and savings that would result from a program that successfully addressed unnecessary utilization of EDs by super-utilizer populations.[17] State programs must also determine whether certain super-utilizer populations can be impacted by a reformed care delivery system. The typical "impactable" patient may have "multiple ED admissions for mental illness or substance abuse disorders and/or multiple preventable admissions for poorly controlled chronic conditions."[18] To reduce ED visits by these super-utilizers, states have experimented with offering alternative primary care sites along with Medical and Health Homes.[19] Given that a 2010 study found that 66% of ED visits took place outside of regular business hours,[20] states may choose to experiment with alternate primary care sites that are open and readily accessible outside of regular business hours to reduce ED visits. It is estimated by the Rand Corporation that the existence of alternative primary care sites could potentially save $4.4 billion in annual health costs as a result of reduced ED use.[21] In New York alone, "the implementation of an urgent care center decreased ED utilization by 48% for adults with a visit to the clinic."[22] The CMS recommends the creation of community-based care teams composed of "nurse care managers, social workers, and behavioral workers based in communities" who are charged with monitoring super-utilizers within a given geographic area.[23]

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[16] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 3, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

[17] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings."

[18] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."

[19] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

[20] Pitts, et al., "Where Americans Get Acute Care: Increasingly, It's Not at Their Doctor's Office." *U.S. National Library of Medicine National Institutes of Health*, September 29, 2010, accessed March 23, 2016, http://www.ncbi.nlm.nih.gov/pubmed/20820017.

[21] RAND Corporation, RAND Health, "Some Hospital Emergency Department Visits Could Be Handled by Alternative Care Settings." News release, September 7, 2010, accessed March 21, 2016, http://www.rand.org/news/press/2010/09/07.html.

[22] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," *Department of Health and Human Services*, 3, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-01-16-14.pdf.

[23] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 6, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

Strategy 2: Target Individuals with Substance Abuse and Behavioral Health Problems

One subset of Medicaid super-utilizers is composed of individuals with behavioral health and substance abuse problems. This group accounts for 12.5% of all ED visits.[24] Some states have begun to assign case workers to this subset of super-utilizers in order to better connect users with "behavioral health and social services that meet their needs" or to place them within "interdisciplinary clinics [that] provide targeted services that are lower cost than the ED and more appropriately treat the behavioral needs of patients."[25] These may take the form of Medicaid Health Homes (discussed in more detail in the following section), or mobile clinics with case managers who coordinate with patients closer to their own homes. Integrating treatment for mental illnesses and substance abuse problems with social supports can greatly reduce ED use if these programs are designed and implemented effectively. The following section focuses upon individual programs in Vermont, Maine, and Minnesota that are implementing these two strategies.

Vermont Chronic Care Initiative (VCCI)

The VCCI is a "statewide program that provides care coordination and intensive case management services to non-dually-eligible Medicaid beneficiaries with one or more chronic conditions."[26] The program also covers the top 5% of Vermont Medicaid beneficiaries who generate the highest annual costs and are thought to be "impactable."[27] Vermont hospitals provide the VCCI with real-time data about hospital use in order to "inform and prioritize outreach to clients during ED visits and hospitalizations."[28] Individual health care vendors and state officials all have access to the same data system in order to better coordinate field operations and case management.[29] To qualify for the program, individuals generally must have one or more chronic conditions and are determined and must be determined to be "impactible based on an analysis of clinical acuity and recent utilization patterns (Clinical acuity refers to projections of patient requirements for nursing care within a clinic."[30]

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[24] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings."
[25] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," 4.
[26] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 33, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.
[27] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," 34.
[28] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 34.
[29] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings."
[30] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings."

The VCCI "coach[es] clients on motivation, health literacy, and self-management skills."[31] "[It also] assess[es] social and other non-clinical barriers to health and coordinate[s] client access to available state or local resources (e.g., for housing, food and fuel, transportation, drug rehabilitation services, and financial support for medications or other treatment needs)."[32] Real- time data shared between hospitals and VCCI administrators helps to better identify gaps in care "and other opportunities to intervene with the client" to reduce and offset ED visits and use of emergency facilities. As of fiscal year 2012 (FY12), participants in the VCCI were more adherent to care than non-participants, resulting in a 10% reduction in ED visits and a 14% reduction in inpatient admissions.[33] Table 1 illustrates the reduction in hospital and ED utilization that has resulted from the implementation of the VCCI. As is shown in the Table, there has been a significant decrease in inpatient admissions, 30-day readmissions and overall ED visits by the top-five percent of the Medicaid population with the highest utilization.[34]

Table **1: VCCI Results for Top-Five Percent of Medicaid Population with Highest Utilization**

	Inpatient Admissions	30-day Readmissions	ED Visits
State FY11 Rate	517.75	87.02	1521.35
State FY12 Rate	476.02	77.41	1460.92
% Change SFY11 to SFY12	-8.06%	-11.04%	-3.97%

Data from: Department of Health and Human Services, Centers for Medicare & Medicaid Services, *Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality*, Cindy Mann, July 24, 2013, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

MaineCare Health Homes Initiative

Like the VCCI, the purpose of the MaineCare Health Homes Initiative (MCHHI) is "to provide multidisciplinary care management to support the state's highest-need residents."[35] As stipulated in Section 2703 of the Affordable Care Act (ACA), health home services include 1) comprehensive case management; 2) care coordination; 3) health promotion; 4) comprehensive transitional care; 5) patient and family support; and 6) referral to community

[31] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 35, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.
[32] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 35.
[33] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."
[34] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."
[35] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 29.

and social services."[36] As of 2012, ten Community Care Teams were active in Maine, supporting the highest-need individuals in Maine's Multi-Payer Advanced Primary Care Practices (MAPCP) and Maine's Patient Centered Medical Homes (PCMH). The targeting criteria for the MCHHI are similar to those of the VCCI in that patients with "three or more ED visits in the last six months . . . or a referral made by the candidate's provider or health plan identifying the client as high-risk or high-cost."[37]

Initiated in 2012, the health homes "include both a patient-centered medical home primary practice as well as Community Care Teams (CCTs) [that] are multidisciplinary care management teams" tasked with "connecting beneficiaries with appropriate community resources."[38] Each CCT helps to support multiple PCMH practices and each CCT is geographically distributed by region to serve pilot practices all across the state. In rural areas, each CCT will serve a client population of at least 10,000 people and up to 50,000 people in urban settings.[39] The affiliation of CCTs to particular geographic regions is meant to encourage patient loyalty and "improve the chances that clients will experience some consistency in the CCT personnel they interact with even when shifting from one provider to another."[40] In Maine, there are two different populations (Stage A and Stage B) who are eligible for MaineCare Health Homes. The Stage A population is composed of Medicaid beneficiaries who have "two or more chronic conditions or one condition and are at risk for a second." The Stage B population is composed of Medicaid beneficiaries with serious mental illness, and care is managed by "behaviorally-oriented CCTs."[41] Like the VCCI, Maine's CCTs and Health Homes use a statewide data system that provides information to case managers and state administrators about total number of hospitalizations, ED use and overall costs incurred by the targeted population of super-utilizers. Only limited data has been gathered about the MaineCare MAPCP initiative and thus no conclusive analyses about the effectiveness of this program can be made at this time. However, CCT tracking is demonstrating a reduction in ED utilization and hospital admissions for Medicaid beneficiaries.[42] The program also reports high levels of patient satisfaction.[43]

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[36] U.S. Centers for Medicare & Medicaid Services, "Health Homes (Section 2703) Frequently Asked Questions," *U.S. Department of Health and Human Services*, accessed March 21, 2016, https://www.medicaid.gov/state-resource-center/medicaid-state-technical-assistance/health-homes-technical-assistance/downloads/health-homes-faq-5-3-12_2.pdf

[37] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 30.

[38] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 31.

[39] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 31.

[40] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 31.

[41] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 31.

[42] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," *Department of Health and Human Services*, 31, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-07-24-2013.pdf.

[43] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 31.

Minnesota: Hennepin Health and Hennepin County Medical Center Coordinated Care Clinic

The Hennepin Health program in Minnesota was created in 2010 in order to extend Medicaid coverage to low-income adults who have no children.[44] As of early 2016, Hennepin Health serves 10,500 members[45] with complex and diverse medical and social problems: "45% of patients have substance abuse disorders, 42% have mental health needs, 30% require chronic pain management, 32% are in unstable housing, and 30% have at least one chronic disease."[46] Like the VCCI and MaineCare programs, Hennepin Health uses a county-wide data system that integrates all medical information and shares that information among various local providers in order to allow care providers "to see patients' utilization patterns across providers and to develop care interventions based on system-wide data."[47]

Hennepin Health also divides patients into three different utilization tiers based upon different utilization patterns. Tier 3 patients must have "three or more inpatient admissions in the past year . . . two or more psychiatric admissions in the past year . . . [or] five or more visits in a six month time period."[48] Tier 2 patients must have "one or two inpatient admissions in the past year, any chronic disease . . . and [be] taking at least four medications."[49] Tier 1 patients do not have chronic health problems but "have social needs such as unstable housing."[50] Care coordinators are assigned to all Tier 2 and Tier 3, and are alerted when patients are "admitted to a hospital, visit the ED, or enter local homeless shelters or addiction facilities."[51] Care coordinators work extensively with patients based upon their specific needs and are integrated into the primary care facilities to provide "integrated primary care, behavioral health services including chemical dependency treatment and mental health counseling, medication treatment management, care management, and assistance addressing social needs."[52] Hennepin Health "observed a 2 to 5 percent decrease in readmissions and a 35 percent decrease in ED visits,"

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[44] "About Hennepin Health," *Hennepin Health*, accessed April 6, 2016, http://hennepinhealth.org/about-us/about-hennepin-health.

[45] "About Hennepin Health," *Hennepin Health*.

[46] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 27.

[47] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 28.

[48] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 28.

[49] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 28.

[50] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality," 28.

[51] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."

[52] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."

and a 50% reduction in hospitalizations by patients in Tier 3 over the first 10 months of the programs existence.[53]

Conclusion

The CMS is "very supportive of efforts to ensure that appropriate care is delivered in the most appropriate settings."[54] The current research suggests that broad strategies aimed at reducing ED use by super-utilizers have "considerable promise for addressing unmet health needs [that are] the underlying causes of high ED utilization."[55] In addition to broad programs targeted at reducing ED use by super-utilizers, narrow programs that target individual beneficiaries with substance abuse and behavioral problems have also been shown to be effective. The expansion of Medicaid under that ACA encourages individual states to experiment with their Medicaid programs to reduce costs and to better align health services with the needs of beneficiaries. By better integrating primary care and individual case management, states may be able to effectively reduce non-emergency use of EDs and thus reduce costs and provide improved, more holistic health services to Medicaid beneficiaries.

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Disclaimer: This report has been compiled by undergraduate students at the University of Vermont under the supervision of Professor Jack (Anthony) Gierzynski, Professor Robert Bartlett and Professor Eileen Burgin. The material contained in the report does not reflect the official policy of the University of Vermont.

[53] U.S. Centers for Medicare & Medicaid Services, "Targeting Medicaid Super-Utilizers to Decrease Costs and Improve Quality."

[54] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," *Department of Health and Human Services*, 7, accessed March 15, 2016, https://www.medicaid.gov/Federal-Policy-Guidance/Downloads/CIB-01-16-14.pdf.

[55] U.S. Centers for Medicare & Medicaid Services, "Reducing Nonurgent Use of Emergency Departments and Improving Appropriate Care in Appropriate Settings," 8.