Implementing a Prison Medicaid Enrollment Program for Inmates with a Community Inpatient Hospitalization

David L. Rosen · Catherine A. Grodensky ·
Anna R. Miller · Carol E. Golin · Marisa E. Domino ·
Wizdom Powell · David A. Wohl

Published online: 13 February 2017
© The New York Academy of Medicine 2017

Abstract In 2011, North Carolina (NC) created a program to facilitate Medicaid enrollment for state prisoners experiencing community inpatient hospitalization during their incarceration. The program, which has been described as a model for prison systems nationwide, has saved the NC prison system approximately \$10 million annually in hospitalization costs and has potential to increase prisoners' access to Medicaid benefits as they return to their communities. This study aims to describe the history of NC's Prison-Based Medicaid Enrollment Assistance Program (PBMEAP), its structure and processes, and program personnel's perspectives on the challenges and facilitators of program implementation. We conducted semi-structured interviews and a focus group with PBMEAP personnel including two administrative leaders, two "Medicaid

Facilitators," and ten social workers. Seven major findings emerged: 1) state legislation was required to bring the program into existence; 2) the legislation was prompted by projected cost savings; 3) program development required close collaboration between the prison system and state Medicaid office; 4) technology and data sharing played key roles in identifying inmates who previously qualified for Medicaid and would likely qualify if hospitalized; 5) a small number of new staff were sufficient to make the program scalable; 6) inmates generally cooperated in filling out Medicaid applications, and their cooperation was encouraged when social workers explained possible benefits of receiving Medicaid after release; and 7) the most prominent program challenges centered around interaction with county Departments of Social Services, which were responsible for processing applications. Our findings could be instructive to both Medicaid non-expansion and expansion states that have either implemented similar programs or are considering implementing prison Medicaid enrollment programs in the future.

D. L. Rosen (✉) · C. A. Grodensky · A. R. Miller ·
D. A. Wohl
Institute for Global Health and Infectious Diseases, Division of
Infectious Diseases, Department of Medicine, School of Medicine,
University of North Carolina, Chapel Hill, NC 27599, USA
e-mail: David_Rosen@med.unc.edu

C. E. Golin · W. Powell
Department of Health Behavior, Gillings School of Global Public
Health, University of North Carolina, Chapel Hill, NC, USA

M. E. Domino
Department of Health Policy and Management, Gillings School of
Global Public Health, University of North Carolina, Chapel Hill,
NC, USA

C. E. Golin
Department of Medicine, School of Medicine, University of North
Carolina, Chapel Hill, NC, USA

Keywords Prison · Prisoners · Medicaid · Healthcare ·
Access · Program evaluation · Social workers

Introduction

Inmates in US correctional facilities are typically socio-economically disadvantaged and bear a disproportionately heavy burden of disease compared to the general US population [1]. Medicaid, a federal- and state-funded safety net program, is a major source of healthcare

coverage for low-income populations [2]. However, Medicaid is prohibited from paying for care provided within correctional facilities [3] and it is the responsibility of correctional facilities to provide [4] and pay for care during periods of incarceration.

Although incarcerated individuals cannot use Medicaid benefits during incarceration, the federal Centers for Medicare and Medicaid Services has clarified that correctional facilities should implement policies, such as suspension rather than termination of Medicaid benefits, that support an inmate's continued Medicaid enrollment at release [5–7]. Centers for Medicare and Medicaid Services officials have also clarified that Medicaid funds can be used to pay for healthcare *during* incarceration when Medicaid-eligible inmates receive inpatient care (>24 hours) delivered outside of correctional facilities [5]. This latter clarification creates a strong financial incentive for correctional facilities to help qualifying inmates enroll in Medicaid during incarceration, as inmates' enrollment in Medicaid can reduce correctional systems' community hospitalization costs. Additionally, enrollment during incarceration could enhance inmates' access to Medicaid benefits at release.

As of 2012, at least 15 state prison systems instituted policies facilitating Medicaid enrollment to help pay for inmates' community hospitalizations [5, 8]. The number of state prison systems with these policies has likely increased since the Affordable Care Act expanded Medicaid eligibility criteria (now implemented in 31 states) in 2014, thereby increasing the number of incarcerated individuals eligible for Medicaid [9, 10]. Yet in both expansion and non-expansion states, little is known about how prison programs can most successfully facilitate inmates' Medicaid enrollment to pay for community hospitalizations. Moreover, the impact of Medicaid enrollment during incarceration on inmates' post-release access to Medicaid benefits and service utilization has not been well characterized. Such evaluations are particularly relevant considering low rates of Medicaid enrollment following prison release in many states [6].

In 2011, North Carolina (NC)—a Medicaid non-expansion state—created a program to facilitate Medicaid enrollment for state inmates experiencing community inpatient hospitalizations longer than 24 h. The program has saved the NC prison system approximately \$10 million annually [11] and has been described as a model program for prison systems across the country [5].

Accordingly, we sought to describe the history of NC's Prison-Based Medicaid Enrollment Assistance

Program (PBMEAP), its structure and processes, and program personnel's perspectives on the challenges and facilitators of program implementation. Our findings could be instructive to both Medicaid non-expansion and expansion states that have either implemented similar programs or are considering implementing prison Medicaid enrollment programs in the future.

Methods

Setting

The NC Department of Public Safety Division of Adult Correction (hereafter, referred to as NCDPS or NC prison system) is the tenth largest prison system in the USA [12]. In 2015, about 23,000 individuals entered and exited NCDPS, with a daily census of 37,000 inmates and a median sentence length of 2 years. Ninety-three percent of inmates were male and 61% were non-white, with a median age of 32 years [13].

Each year, approximately 1600 NCDPS inmates are transferred to community hospitals for inpatient care. For community hospitalized inmates who are not Medicaid-eligible, NCDPS has a negotiated reimbursement rate equal to twice or less of the Medicaid reimbursement rate or 70% of “usual and customary charges” of the admitting hospital [14].

In NC, groups that qualify for Medicaid predominantly include low-income pregnant women, families with dependents, and the aged, blind, or disabled. In 2015, the federal government financed 66% of NC Medicaid payments [15], a rate that also applies to Medicaid-eligible inmates requiring community hospitalization.

Instrument Development and Recruitment

Informed by existing literature, we developed semi-structured interview and focus group guides to be administered to PBMEAP personnel to explore the program's 1) history; 2) implementation and processes; and 3) challenges, strategies, successes, and impact as perceived by program staff. During data collection, the study team met regularly to discuss interview content and develop additional probes, which were integrated into the guides to explore emergent themes of interest.

We recruited the two program leaders (Social Work Director and Program Supervisor) and two of the three

staffs referred to as “Medicaid Facilitators” to participate in in-person or phone interviews (Table 1).

Thirty-eight prison social workers comprised the remainder of the PBMEAP team. We successfully contacted 30 of these social workers, 27 of whom reported ever helping enroll an inmate in Medicaid for a community hospitalization and were therefore eligible for our study. Ten social workers agreed to participate. Five participated in individual phone interviews. Another five social workers who were located in prisons near each other participated in a focus group designed to generate discussion of system-level challenges and facilitators in preparing inmates’ Medicaid applications.

Although the content of the interview and focus group guides overlapped, the guides for program leaders, Medicaid Facilitators, and onsite social workers, respectively, emphasized program history and structure, processes, and inmate interactions. All interviews were recorded and transcribed. Participation was voluntary and uncompensated. To foster unfettered responses, the identities of participating social workers were kept confidential and not shared with the PBMEAP leaders.

Data Analysis

Three investigators (DLR, CAG, ARM) read all transcripts, and two (CAG, ARM) conducted open coding using cutting and sorting principles to generate a codebook [16] which was applied to transcript text and iteratively refined. One investigator applied finalized

codes to all transcripts (ARM), and another reviewed the applied codes for validation (CAG); discrepancies were resolved through discussion. Coded text on program history and processes were summarized, and discrepancies and gaps in these data were resolved with input from PBEAP leaders and, when possible, supplemented with information from public documents. Using principles of thematic content analysis, queries of coded text were conducted to further examine intersections of codes and themes related to program challenges and strategies and to integrate them into a thematic description [17].

Results

Respondents

Nearly all participants were female, and the median time employed by the prison system was 3.5 years (range: 1–27 years) (Table 1). The interviews lasted a median of 64 min, and the focus group lasted 82 min.

NC PBMEAP Origin and Planning

Audit and Legislation

Creation of the PBMEAP was mandated by state legislation in response to recommendations from a state audit [18] of the prison system’s health service expenditures. The audit projected that NCDPS could save \$11.5 million annually by utilizing Medicaid as a pay source for inmates’ community hospitalizations and referred to Centers for Medicare and Medicaid Services documents clarifying that the federal act establishing Medicaid “does not specify or imply that Medicaid eligibility is precluded for those individuals who are inmates at a public institution.” [18] The subsequent legislation mandated that NCDPS consults with the Division of Medical Assistance (i.e., state Medicaid program, within the NC Department of Health and Human Services) “to develop [Medicaid enrollment] protocols for inmates who would be eligible for Medicaid if they were not incarcerated.” [14] It was stipulated that when Medicaid pays for an inmate’s hospitalization, the state’s contribution would be paid using funds from NCDPS’s budget, effectively reducing NCDPS’s spending on eligible hospitalizations to one-third of the Medicaid reimbursement rate.

Table 1 Respondent characteristics ($N = 14$)

	<i>n</i>	%
Female	12	86
Age: median years (range) ^a	44.5 (37–69)	–
Time employed by prison system: median years (range)	3.5 (1–27)	–
Position		
Social Work Director ^b	1	7
Program Supervisor ^b	1	7
Medicaid facilitator ^b	2	14
On-site social worker ^c	10	71

^a Includes Medicaid facilitators and on-site social workers only

^b Semi-structured interview

^c 5 administered semi-structured interviews; 5 participated in a single focus group

Table 2 Prison Medicaid program personnel responsibilities

Position	No. of personnel	Responsibility
Social Work Director	1	Supervises program; liaises with DHHS and county DSS to resolve policy questions regarding inmates' eligibility for Medicaid enrollment
Program supervisor	1	Reviews inmate hospitalizations to identify patients who may be eligible for Medicaid; refers promising cases to a Medicaid facilitator and on-site social worker to complete the application; tracks application status; interacts with state DHHS; decides when to contest denied Medicaid applications
Medicaid facilitator	3	Follows assigned application from beginning to end; using existing records, collects Medicaid and medical history and assesses inmates' prison savings account; compiles all Medicaid application materials and submits them to county DSS; communicates with DSS to track application progress and outcome
On-site social worker	20	Completes the following Medicaid forms with the inmate: consent, demographics, social history, and assessment of inmates' community financial assets

No. number

Program Planning Period

Following the state's mandate, Division of Medical Assistance and NCDPS officials met over a 6-month period to develop policies for submission of inmates' Medicaid applications and billing. Additionally, a data exchange system was created to automatically cross-check the names and social security numbers of newly incarcerated NCDPS inmates with the Division of Medical Assistance's database of current and former Medicaid enrollees. This data sharing allows PBMEAP staff to quickly determine whether, based on past enrollment, a hospitalized inmate may likely qualify for Medicaid. The data exchange also notifies the Division of Medical Assistance when a Medicaid enrollee becomes incarcerated so that, in accordance with state policy, their benefits can be suspended.

Training

Early during program implementation, the Social Work Director led a daylong training for the Social Work staff covering the PMEAP's origins, procedures for submitting a Medicaid application, and staff roles. Subsequent training needs were addressed annually in refresher trainings and as needed by telephone and email. Additionally, the Program Supervisor, a social worker by training, informally studied the inmate's medical

background in each case to become familiar with medical terminology and diagnoses commonly relevant for Medicaid eligibility.

Program Implementation

Staffing and Staff Roles

PBMEAP personnel consist of the Social Work Director, Program Supervisor, three Medicaid Facilitators, and 38 onsite social workers (Table 2). Briefly, the Social Work Director provides program oversight and liaises with county Departments of Social Services (DSS) to clarify policies governing inmates' Medicaid enrollment as needed. The Program Supervisor reviews all hospitalizations to determine potential Medicaid eligibility of each individual and assigns potentially eligible cases to a Medicaid Facilitator and an onsite social worker. The onsite social worker, located at the inmate's prison facility, obtains the inmate's consent and collects social history and community financial asset data. This information is sent to the Medicaid Facilitator, located in NCDPS's administrative offices. The Medicaid Facilitator collects inmates' medical, Medicaid, and prison savings account information, assembles the entire Medicaid application, submits it to the inmate's county of residence DSS office, and tracks the application following submission. In addition, a state Department of

Health and Human Services liaison is available to guide DSS administrators on inmates' Medicaid enrollment.

At program initiation, staff included only the newly created Program Supervisor position and the existing onsite social workers, who were each individually responsible for assembling, submitting, and tracking Medicaid applications. However, this level of staffing was insufficient, and positions for three full-time Medicaid Facilitators were created and duties were redistributed (Table 2), reducing the onsite social workers' Medicaid duties to a small adjunct to their primary responsibilities providing counseling and case management.

Medicaid Enrollment Procedures

Intake Newly imprisoned inmates undergo a series of assessments. After PBMEAP was initiated, incoming inmates were asked if they have ever enrolled in Medicaid or "Disability." Female inmates were also asked if they were pregnant. This information and the Medicaid enrollment data obtained through the NC Division of Medical Assistance data exchange (described above) is stored for reference if an inmate requires a community hospitalization.

Screening for Medicaid Enrollment/Eligibility The Program Supervisor receives a weekly list of inmates hospitalized in the community during the preceding week. For each inmate, the Program Supervisor evaluates the reason for hospitalization, hospital discharge summary, comorbidities, and Medicaid enrollment history. Based on these data, the Supervisor decides whether to initiate a Medicaid application.

Filling-out the Application The Medicaid Supervisor contacts an onsite social worker to obtain the potentially eligible inmate's consent to apply for Medicaid. If the inmate consents, the social worker briefly interviews the inmate about his financial assets (e.g., savings, property ownership, etc.). This information is sent to a Medicaid Facilitator who uses existing records to document medical history, Medicaid history, and assets in the prison system savings account. If an inmate refuses to provide consent, the prison system may submit an application on the inmate's behalf, but without the benefit of self-reported financial information.

Application Submission, Follow-up, and Billing The completed paper application is sent to the inmate's

home county Department of Social Services (DSS), and the Medicaid Facilitator initially follows up with the county DSS to confirm receipt of the application and maintains at least monthly contact to ensure that the application is processed. For applications based on pregnancy or age, the state has 45 days to determine Medicaid eligibility; for applications requiring a determination of disability, the state has a 90-day determination period as the application must also be processed by the county Disability Determination Agency, a county-level Social Security Administration agency. Upon an inmate's successful Medicaid enrollment, the prison system notifies the hospital that Medicaid is to be billed for the recent hospitalization. The resulting Medicaid benefits can also be applied retroactively for community hospitalizations within 90 days prior to submission of the application.

Hospitalizations and Medicaid Enrollment Based on quarterly reports, from July 2014 to June 2015, there were 1606 community inpatient hospitalizations [19–22]. Among these, approximately 52% of patients were selected for submission of a Medicaid application and 81% (641) of these were successfully enrolled, resulting in approximately \$11.6 million in annual prison system savings. Accordingly, for each of the four additional staffs hired, the prison system enrolled into Medicaid an additional 160 inmates and saved nearly \$3 million annually.

Suspension, Recertification, and Re-application Per federal regulations, inmates' Medicaid benefits are limited to their community hospitalization; in NC, their eligibility is then "suspended" for the one-year period following hospitalization, but can be reactivated during the year should an inmate require further hospitalization. Originally, the NCDPS could recertify inmates' enrollment during their incarceration, allowing for continuous suspended enrollment for periods of greater than a year; however, the NCDPS lost this ability. Now, a new Medicaid application must be submitted 1 year following enrollment for the inmate to receive further Medicaid benefits during the incarceration. If an inmate is released within a year of enrollment, he can access full Medicaid benefits (i.e., not only benefits specific to hospitalization) in the community by visiting the county DSS office.

Table 3 Challenges and facilitators to the Medicaid application process

	Challenge	Facilitator
Challenges to preparing applications for submission to DSS	Inmates reluctant to disclose financial information	SWs try to establish rapport with inmate
	Inmates angry with prison system/state	SWs clarify funding source for prison health care and explain post-release benefits of Medicaid.
	Inmate refuses to consent	If an inmate refuses to consent, the prison system can submit application with supportive information. (i.e., a letter referencing DMA liaison, Medicaid Application, DMA 5009 Social History Summary, and one year of medical and/or mental health history records)
	Low inmate literacy	SWs will read through application with inmate
	Application forms require inmates to confirm that they are not incarcerated and they intend to pay taxes	Stamp on application form now says that the application is for an inmate of the NC prison system
	Initially difficult for SWs to complete all parts within deadline (assemble medical records, track applications w/ the county)	Addition of facilitator personnel and supervisor tracking system improved efficiency of application process
	Documenting inmate medical history may now require consulting new electronic and archival paper records	—
Challenges to interacting with county DSS agencies	DSS staff can be difficult to reach by phone or email	Facilitators have created a network of contacts at DSS offices and will “Email up the chain” to find caseworker in charge
	DSS occasionally lose paper records and electronic documents are not yet in use	Facilitators follow up with DSS applications at pre-set times
	DSS staff in large counties are overworked, have high turnover	Facilitators refer DSS case managers to more experienced DSS employees in other counties
	New Medicaid software requires “workaround” for inmates	Application cover letter explains Medicaid policy for inmates
	DSS staff in smaller counties unfamiliar with inmate Medicaid policy or lack experience with inmate enrollment	Facilitators may refer county to the DHHS liaison

Staff Perspectives: Program Challenges, Strategies, Successes, and Impact

Interviews and focus group with program staff about PBMEAP implementation revealed several salient themes regarding challenges and social workers’ strategies for overcoming them, both during the preparation of the Medicaid application and after its submission (Table 3).

Preparing the Application for Submission to DSS

Participants unanimously noted good communication and teamwork among all PBMEAP staff, which facilitated the efficient completion of Medicaid applications. As one respondent described, “everybody work[s] together as a team to get it done.” However, they reported several challenges in completing the application and strategies to address these challenges.

Inmate Cooperation and Consent Most inmates reportedly cooperated (one respondent estimated that 90% of inmates cooperate) in providing consent and other information for Medicaid applications. The reason social

workers most often cited for inmates not cooperating was their desire to make the prison or state pay for of the inmate’s medical care. One focus group participant reported, “I will do the application for a community hospitalization, and the inmate will say, ‘I want the prison system to pay every single dime out of their pocket.... I’m not filling this out,’ and sometimes that’s a bit manipulative and sometimes it’s in response to ‘I got horrible medical care and they should pay for it.’” Other reasons social workers reported for inmates withholding consent included mental health issues, such as paranoia, and feeling too unwell to provide information. Respondents indicated that inmates occasionally were reluctant to disclose financial information for the application. One focus group participant said, “...maybe [inmates] feel comfortable disclosing information to me, but I’ve [also] got two officers right here and they don’t want [the officers] to know anything about their money...”

Most social workers reported encouraging inmates to cooperate. One social worker reported she would “explain from [inmates’] perspective how [Medicaid enrollment during incarceration] can be a benefit to them down the road” (by increasing their likelihood of being determined Medicaid-eligible after release). Two focus

group participants said that when inmates refused because they wanted the state to pay for their hospitalization, the social workers would explain that both NCDPS and Medicaid are ultimately funded by tax payers. This approach frequently fostered inmates' cooperation. However, the social workers did not feel compelled to convince inmates to consent because NCDPS has the authority to submit an application without inmates' consent.

Challenges Presented by the Medicaid Application Forms Social workers reported that Medicaid application forms presented challenges to inmates with low literacy and so social workers generally chose to read the application aloud. One form is confusing to inmates because it requires them to initial a statement confirming that they are not incarcerated. As one social worker described, "[The form] specifically states that you're not incarcerated.... And it's hard even for myself to explain to an inmate who's incarcerated that we're asking him to sign this when in fact he is incarcerated." Inmates' concern about initialing the statement was sometimes mitigated by an official stamp on the form indicating that the application was being submitted on behalf of an inmate. Some social workers had not noticed the statement before they were interviewed for the study, and most did not find it to be a barrier with inmates. Finally, social workers reported that some inmates could not recall in detail their personal financial information, resulting in incomplete information that slowed the county DSS's required verification of their assets and the Medicaid application process.

Assembling Records and Tracking Applications Internally The application process is facilitated by the PMEAP Program Supervisor who tracks each application on a weekly basis, ensures that NCDPS is "moving the application along," and notifies Facilitators when a particular application needs attention.

Medicaid Facilitators reported occasional difficulties in obtaining community hospital healthcare records. Also, at the time of the study, NCDPS was adopting an electronic medical record system, further complicating collection of internal health records as paper and electronic records were not fully integrated. Finally, the NCDPS-Division of Medical Assistance data system reportedly did not always have accurate information on inmates' past Medicaid enrollment.

Interacting with County DSS Agencies

Participants noted many challenges interacting with county DSS agencies after submitting the paper Medicaid application, but described strategies and situations that made the process go more smoothly.

Lost applications, Communication, and Building Relationships Entire applications or pieces were often misplaced or not received by the county after they were submitted, necessitating that NCDPS resend the applications. To curtail delays, the Medicaid Facilitators began contacting DSS offices routinely to ensure that applications were moving forward and to establish rapport and communication. However, some participants reported that phone calls to DSS offices frequently went unanswered. When NCDPS staff found it difficult to communicate with a DSS caseworker, they reported "emailing up the chain" to supervisors, including the county DSS director, to ensure that the application was moving forward.

Institutional Knowledge and Turnover Not all county DSS caseworkers were reportedly familiar with the policy allowing inmates to apply for Medicaid, and they sometimes refused to process inmate applications. In these cases, the Medicaid Facilitators or Program Supervisor would contact the county DSS office or would request that the Department of Health and Human Services liaison speaks with the county DSS administrators. Additionally, Medicaid Facilitators started including a cover letter with each submitted application referencing the state legislation allowing inmate enrollment in Medicaid, which reportedly reduced confusion among DSS staff.

Participants reported that high turnover of DSS workers results in a constant need to educate DSS staff about the policy, which is time-consuming. To bolster communication with DSS employees, the Medicaid Facilitators have built relationships with DSS supervisors (who have lower turnover than caseworkers) in several counties. PBMEAP staff reported sharing these contacts with each other, providing Medicaid Facilitators a wide network of DSS staff with whom they can communicate in each county.

Limitations of Medicaid Processing Software The electronic system DSS caseworkers use to submit applications to the Division of Medical Assistance does not have an established mechanism for processing inmates'

applications. Although the system can be “worked around,” few DSS caseworkers know how, creating additional confusion and necessitating extra communication between PBMEAP staff and DSS caseworkers.

When addressing challenges interacting with the county DSS, several participants speculated that a joint training among prison and county DSS staff on Medicaid enrollment procedures could improve the process.

Discussion

In the wake of the Affordable Care Act’s 2014 Medicaid expansion, there has been great interest in facilitating inmates’ enrollment in Medicaid in anticipation of their return to the community [9, 23–25]. Although several strategies have been identified to facilitate inmates’ enrollment in Medicaid [24], the ability of Medicaid to reimburse inmates’ community hospitalizations uniquely creates a strong financial incentive for correctional facilities to assist with enrollment. Yet, there are few data available on the implementation of this strategy.

In examining the history and implementation of NC’s prison Medicaid enrollment program, seven major findings emerged: 1) legislation was required to bring the program into existence; 2) the legislation was prompted by projected cost savings; 3) program development required close collaboration between the prison system and state Medicaid office; 4) technology and data sharing played key roles in identifying inmates who previously qualified for Medicaid and would likely qualify if hospitalized; 5) with an efficient division of labor, a small number of new staff were sufficient to make the program scalable; 6) inmates generally cooperated in filling out Medicaid applications, and their cooperation was encouraged when social workers explained possible benefits of receiving Medicaid after release; and 7) the most prominent program challenges centered around interaction with county DSS. These findings are similar to those of a study examining a Medicaid enrollment program at jail intake in Cook County, Illinois, although the relevance of security personnel buy-in did not emerge as relevant in our setting [26].

Similar to projections from a 2010 state audit, the PBMEAP has saved the prison system greater than \$10 million annually [11, 19–22]. Although these savings represent only 1% of the state prison system’s annual budget, the program became scalable with the hiring of only four additional personnel, indicating that the

PBMEAP’s savings are considerable in comparison to its costs. Nationwide, 20% of all prison system healthcare costs result from inmate hospitalizations [27]. Presumably, prison systems in Medicaid expansion states—where the federal government subsidizes greater than 90% of Medicaid payments and eligibility is based on income alone and not on disability—could save most of their hospitalization expenditures by enrolling inmates in Medicaid.

The PBMEAP has also relied heavily on data exchange with the state Medicaid office, which could be leveraged further to inform Medicaid enrollment for inmates about to be released. Currently, only inmates with a referral from prison medical or mental health providers are considered for a Medicaid application in preparation for their release. The data exchange could identify additional inmates who, based on past enrollment, likely qualify for Medicaid enrollment upon release. Such potential benefits of the Medicaid enrollment program should be investigated further.

The greatest challenges encountered during PBMEAP implementation were in interacting with the county DSS offices, which sometimes lost applications, presented difficulties in communication, and had incomplete knowledge about Medicaid policy and submissions for inmates. The Medicaid Facilitators addressed these challenges by implementing a schedule for contacting the DSS personnel and by creating an informal network of DSS personnel who were familiar with the Medicaid policy and technical aspects of the submission. As suggested by respondents, a brief training for county DSS agents could be an important tool to increase the efficiency of inmates’ Medicaid enrollment. These lessons learned should be considered by prison and DSS administrators considering implementing of PBMEAPs in their states.

Our assessment has a few limitations. First, respondents may have been reluctant to share negative information about the program despite their confidential participation. Additionally, input from state legislators or county DSS staff could have provided additional context, but was beyond the scope of this project. Similarly, inmates’ perspectives are needed to understand and enhance their enrollment in Medicaid, and data are needed to understand the extent to which Medicaid enrollment during incarceration results in post-release enrollment and service use. To address these issues, we have launched efforts to assess inmates’ knowledge, attitudes, and experiences with Medicaid enrollment in

prison and the community and are linking correctional and Medicaid records to examine post-release access to Medicaid benefits.

In conclusion, the NC Medicaid enrollment program's relatively small investment in new personnel and training and its efficient use of staff has resulted in a highly scalable program. In implementing the program, the staff has addressed a number of challenges related to application preparation, submission, and follow-up. In particular, successful Medicaid enrollment relies upon timely access to inmates' medical and Medicaid history and good communication both among program personnel and with county DSS caseworkers. In non-expansion states, prison Medicaid enrollment programs may be a vital pathway to healthcare coverage for those with severe health problems, and in both expansion- and non-expansion states, these programs can produce considerable healthcare savings for prisons. Experiences in NC may prove a useful guide for the implementation of Medicaid enrollment programs in other state prison systems.

Acknowledgments We thank the NC prison system administrators and Social Work program staff who made this project possible. This project was funded by the National Institutes of Health (R01 MD008979 and R21 MH099162) and supported by the University of North Carolina at Chapel Hill Center for AIDS Research (CFAR, NIH Funded program P30 AI50410) and the UNC Criminal Justice Working Group.

Compliance with Ethical Standards

Funding This project was funded by the National Institutes of Health (R01 MD008979 and R21 MH099162) and supported by the University of North Carolina at Chapel Hill Center for AIDS Research (CFAR, NIH Funded program P30 AI50410) and the UNC Criminal Justice Working Group.

References

1. Maruschak LM, Berzofsky M, Unangst J. *Medical Problems of State and Federal Prisoners and Jail Inmates, 2011–12*. Washington, DC: US Department of Justice, Bureau of Justice Statistics; February 2015. NCJ 248491.
2. Medicaid Matters: understanding Medicaid's Role in Our Health Care System. <http://www.kff.org/medicaid/8165.cfm>: the Henry J. Kaiser Family Foundation; March 2011. Accessed Sept 29, 2012.
3. §1905(a)(A), Social Security Act.
4. Estelle vs. Gamble, 429 U.S. 97 (1976). <https://www.law.cornell.edu/supremecourt/text/429/97>. Accessed 17 Jan 2016.
5. Council of State Governments Justice Center. *Policy Brief: opportunities for Criminal Justice Systems to Increase Medicaid Enrollment, Improve Outcomes, and Maximize State and Local Budget Savings*. New York, NY: Council of State Governments Justice Center; 2013.
6. Hancock J. *Feds Act To Help More Ex-Inmates Get Medicaid*. <http://www.npr.org/sections/health-shots/2016/04/29/475922382/feds-act-to-help-more-ex-inmates-get-medicaid>. Accessed April 30, 2016.
7. Wachino V. *SHO # 16–007; RE: to facilitate successful re-entry for individuals transitioning from incarceration to their communities*. In: Department of Health & Human Services, ed. Centers for Medicare & Medicaid Services. from <https://www.medicaid.gov/federal-policy-guidance/downloads/sho16007.pdf>2016. Accessed on May 14, 2016.
8. Rosen DL, Dumont DM, Cislo AM, Brockmann BW, Traver A, Rich JD. Medicaid policies and practices in US state prison systems. *Am J Public Health*. 2014; 104(3): 418–420.
9. Cuellar AE, Cheema J. As roughly 700,000 prisoners are released annually, about half will gain health coverage and care under federal laws. *Health Aff*. 2012; 31(5): 931–938.
10. Rosen DL, Grodensky CA, Holley TK. Federally-Assisted Healthcare Coverage among Male State Prisoners with Chronic Health Problems. *PLoS One*. 2016; 11(8): e0160085.
11. Wood B. *Department of Public Safety Division of Adult Correction Financial Related Audit*. 2012; <http://www.ncauditor.net/EPSWeb/Reports/FiscalControl/FCA-2012-4500.pdf>. Accessed May 3, 2016.
12. Carson EA. *Prisoners in 2013*. Washington, DC: US Department of Justice, Bureau of Justice Statistics; 2014: NCJ 247282.
13. NC Department of Public Safety Office of Research and Planning. *Automated System Query Custom Offender Reports 2016*; <http://webapps6.doc.state.nc.us/apps/asqExt/ASQ>. Accessed May 23, 2016.
14. North Carolina General Assembly Session Law 2010–31. 19.6.(c). 2009 ed2009. <http://www.ncleg.net/Sessions/2009/Bills/Senate/PDF/S897v8.pdf>. Accessed 17 Jan 2016.
15. Federal Register, January 21, 2014 (Vol 79, No. 13), pp 3385–3399. Available <https://www.gpo.gov/fdsys/pkg/FR-2014-01-21/pdf/2014-00931.pdf>. Accessed on May 23, 2016.
16. Ryan GW, Bernard HR. Techniques to identify themes. *Field Methods*. 2003; 15(1): 85–109.
17. Sandelowski M, Barroso J. Classifying the findings in qualitative studies. *Qual Health Res*. 2003; 13(7): 905–923.
18. Wood B. *Performance Audit: department of Correction Inmate Medicaid Eligibility*. 2010; <http://www.ncauditor.net/epsweb/reports/performance/per-2010-7260.pdf>. Accessed May 14, 2012.
19. Perry FL, Guice WD. *Memorandum, Re: inmate Medical Cost Containment*, July 1, 2014 - September 30, 2014 http://www.ncleg.net/documentsites/committees/JLOCJPS/Reports/FY%202014-15/CostContainment_Q1_Jul-Sep%202014_DOP_2014-10-22.pdf. Accessed November 10, 2016.

20. Perry FL, Guice WD. *Memorandum, Re: inmate Medical Cost Containment*, October 1, 2014 - December 31, 2015 http://www.ncleg.net/documentsites/committees/JLOCJPS/Reports/FY%202014-15/CostContainment_Q2_Oct-Dec%202014_DOP_2015-02-05.pdf. Accessed November 10, 2016.
21. Perry FL, Guice WD. *Memorandum, Re: inmate Medical Cost Containment*, January 1, 2015 - March 31, 2015 http://www.ncleg.net/documentsites/committees/JLOCJPS/Reports/FY%202014-15/DPS_Inmate_Medical_CostContainment_Q3_Jan-Mar%202015_DOP_2015-05-14.pdf. Accessed November 10, 2016.
22. Perry FL, Guice WD. *Memorandum, Re: inmate Medical Cost Containment*, April 1, 2015 - June 30, 2015 2015. http://www.ncleg.net/documentsites/committees/JointAppropriationsJPS/Reports/FY%202014-15%20Mandated%20Reports/DPS_Inmate_Medical_CostContainment_Q4_Apr-Jun%202015_DOP_2015-07-17.pdf. Accessed November 10, 2016.
23. Rich JD, Chandler R, Williams BA, et al. How health care reform can transform the health of criminal justice-involved individuals. *Health Aff.* 2014; 33(3): 462–467.
24. Bandara SN, Huskamp HA, Riedel LE, et al. Leveraging The Affordable Care Act To Enroll Justice-Involved Populations In Medicaid: state And Local Efforts. *Health Aff.* 2015; 34(12): 2044–2051.
25. Bainbridge AA. *White Paper: the affordable care act and criminal justice: intersectoins and implications*. 2012; https://www.bja.gov/Publications/ACA-CJ_WhitePaper.pdf. Accessed May 10, 2013.
26. Riedel LE, Barry CL, McGinty EE, et al. Improving Health Care Linkages for Persons: the Cook County Jail Medicaid Enrollment Initiative. *J Correct Health Care*. 2016; 22(3): 189–199.
27. Pew Charitable Trusts, John D. and Cathertine T. MacArthur Foundation. *State Prison Health Care Spending*. 2014; <http://www.pewtrusts.org/~media/assets/2014/07/stateprisonhealthcarespendingreport.pdf>. Accessed May 24, 2016.