Health Insurance Portability and Accountability Act of 1996 (HIPAA) compliance. The pilot is estimated to cost approximately $379,940 annually, excluding up-front implementation costs of $4,500 and any after-hour triage consultations.

Like many pilot projects initiated in state government, the design of the telemedicine pilot project does not properly allow for evaluation of achievement of the program's objectives including any potential cost savings. Pilot programs are new initiatives implemented on a small scale that are intended to provide data showing whether or not they have the potential to succeed on a larger scale.[45,46] Although DPS Health Services is taking steps to limit state expenditures by initiating this telemedicine pilot project, its failure to adhere to guidelines for the design, measurement, and evaluation of the program inherently limits its effectiveness. It does not appear that DPS Health Services has developed a formal evaluation plan for collecting non-anecdotal information on the services provided through the pilot program or for demonstrating any cost savings. In addition, it does not appear that the pilot will incorporate telemedicine into the triage process for determining the necessity of outside emergency hospital encounters.

Expanding telemedicine would be complementary to participation in a 340B program. In addition to the advantages detailed above, adoption of telemedicine can make participation in a 340B program easier (discussed in greater detail in the second Program Evaluation Division report of this series). Some states, such as New Jersey and Louisiana, are using telemedicine to perform examinations with HIV/AIDS patients every 90 days so that these patients only have to travel to a community medical facility once a year to qualify for the 340B program. Cost reductions associated with decreased travel can greatly enhance the benefits of 340B participation.

Recommendations

Recommendation 1. The General Assembly should consider establishing a position within DPS Health Services to support better use of data for performance measurement and management of methods to contain inmate healthcare costs.

As discussed in Finding 1, the Department of Public Safety's Health Services Division (DPS Health Services) collects a large amount of data on inmate healthcare, such as encounters by health services staff within prisons, claims data from outside providers, and purchasing information for pharmaceuticals and supplies. However, due to a lack of sufficient staff to analyze these data, DPS Health Services often undertakes activities to promote more efficient and effective operations without demonstrating whether these attempts are successful.

[45] Fiscal Research Division. (2008, August). Ten questions to better pilot programs. Fiscal Brief. Raleigh, NC: General Assembly.
[46] Previous Program Evaluation Division reports have explored pilot programs. Program Evaluation Division. (2014, March). Performance Measurement and Monitoring Would Strengthen Accountability of North Carolina's Driver Education Program. *Report to the 2014 Regular Session of the 2013 General Assembly*. Raleigh, NC: General Assembly; Program Evaluation Division. (2014, October). Overnight Respite Pilot at Adult Day Care Facilities Perceived as Favorable, but Lacked Objective Measures of Success. *Report to the 2014 Regular Session of the 2013 General Assembly*. Raleigh, NC: General Assembly.

To strengthen DPS Health Services's capacity for data analysis, the General Assembly should appropriate funds from the General Fund to the division to establish one new position, a Research and Policy Associate or equivalent job classification; this appropriation could be offset by other savings identified in this report as well as any data-driven cost savings implemented as a result of the work performed by this position. This position would report to the Director of the Health Services division.

This position would be responsible for combining and analyzing diverse types of data from several sources in order to extract actionable data discoveries and new trend analytics for inmate healthcare services. Data analyses performed by this position would allow DPS Health Services leaders across sections to identify factors increasing inmate healthcare costs and enable them to take action to limit such factors. Each of the provider section heads (medical, mental health, dental, and pharmacy) could use the data analysis performed by this position to develop performance standards for their offices, measure performance, and identify methods to contain costs. This position can further assist the Division by training staff on how to effectively use data from various systems to manage workloads and promote efficiencies.

Recommendation 2. The General Assembly should direct DPS Health Services to establish a formal electronic process of supply inventory management for prison facilities that includes continually tracking medical supplies and products, determining adequate supply levels, and performing effectiveness audits.

As discussed in Finding 1, DPS Health Services does not collect, monitor, or analyze expenditure data to ensure prison-maintained inventories of medical supplies and equipment are adequate or necessary to meet each prison facility's individual medical mission(s). A formal supply inventory process that regularly audits inventory levels ensures proper supply availability, prioritizes product use, and prevents over-purchasing.

The General Assembly should direct DPS Health Services to establish a formal, electronic supply inventory management process that includes

- recording the arrival and departure of each medical supply in use or in future use from the point of order including all methods of requisition and main storage locations (e.g., warehouse, secondary storage location, prison unit or infirmary);
- recording the dates on which a medical supply was at each transition point, including the date of use or disposal;
- identifying the DPS employee(s) in contact with a medical supply at each transition point, including at the time of use or disposal;
- developing a means for DPS Health Services to verify inventory data to ensure supplies are used prior to their expiration;
- determining adequate supply levels for each medical product currently in use or slated for future use based on usage of such items by facility; and

- conducting biannual audits of this process to continually reassess the need for particular medical supplies as well as determinations of the accuracy of records.

Recommendation 3. The General Assembly should direct DPS Health Services to develop a feasibility and implementation plan for Central Prison Healthcare Complex that includes methods to increase usage of the facility.

As discussed in Finding 1, although DPS Health Services has made substantial investments in prison healthcare facilities, the primary hospital facility serving most inmates (Central Prison Healthcare Complex, or CPHC) is not being used to its full potential. One Raleigh-area community provider stated that it receives many emergency room visits from inmates whose medical needs could be met by CPHC's urgent care facility. Further, CPHC's operating theater is only open for general anesthesia procedures Mondays through Thursdays and is reserved for local anesthesia procedures on Fridays.[47] These limitations lead to diminished use of CPHC's resources and a reliance on outside private services.

The General Assembly should direct DPS Health Services to develop a plan for enhancing the existing CPHC facility that includes the following components.

- **Ensure full use of CPHC's urgent care facility for non-medical emergencies.** One unit of CPHC is its urgent care facility, which provides around-the-clock services for all male inmates located within a 60-mile radius of Raleigh. The plan should outline current and anticipated actions for CPHC to take to limit the number of hospital visits to emergency rooms within a 60-mile radius of CPHC for purposes other than life-threatening emergencies. As part of this plan, DPS Health Services, in consultation with area community hospital providers, should identify common procedures performed by these facilities and reasons for non-life-threatening emergency visits. The plan should include an ongoing oversight component, including but not limited to the analysis of claims data, to ensure inmates with non-emergency needs are steered towards CPHC's urgent care facility rather than a community hospital facility. In addition, the plan should examine how any current or future telemedicine activities could assist in ensuring only inmates with life-threatening emergencies are sent to hospital emergency rooms. The plan should further identify necessary modifications to the triage system for nursing staff to ensure inmates with urgent care needs within a 60-mile radius of CPHC are sent to this facility instead of to an emergency room.

[47] The Program Evaluation Division contends procedures requiring local anesthesia do not necessarily need to be performed in an operating theater since non-incarcerated individuals often receive such procedures in a provider's office. Thus, such procedures could be performed in other locations within CPHC, leaving the operating theater available for general anesthesia procedures on Fridays thereby making better use of CPHC resources.

- **Cost comparisons of health services being performed in CPHC and the North Carolina Correctional Institution for Women versus being performed by outside providers.** This plan should include an analysis of data from the most recently completed fiscal year to determine and compare the costs of common procedures performed in the community as opposed to having them performed at CPHC for male inmates or NCCIW's health facility for female inmates. This information should include the cost of custody staff for transporting inmates, which has not been collected to date and would help provide a more accurate picture of differences in costs.

- **Comprehensive review of the use of CPHC and NCCIW health facilities.** The plan should include a comprehensive review of the current usage of CPHC's and NCCIW's resources and should consider the potential to maximize usage of the facilities through
    - increasing the usage of CPHC's operating theater for general anesthesia procedures and increasing usage of existing on-site equipment,
    - selling equipment no longer in use or not in use due to staffing changes,
    - increasing services available at CPHC to female inmates, and
    - pursuing other potential resource needs to save state funds.

This plan should be submitted to the Joint Legislative Oversight Committee on Justice and Public Safety by December 1, 2019 and include accomplishments to date, realized and estimated cost savings, and identify any obstacles in increasing the usage of CPHC and NCCIW's health services facilities.

Recommendation 4. The General Assembly should consider realigning the base budget for DPS Health Services and should direct the division and DPS to develop a unified method of budgeting at the prison-specific level for the health services DPS provides.

As Finding 2 discussed, DPS Health Services expenditures exceeded appropriations by approximately $70 million in Fiscal Year 2016–17. DPS covers this structural deficit through the use of lapsed salary funds for non-DPS Health Services positions. Finding 2 further showed that some DPS Health Services positions are funded from budget fund codes other than the four codes to which appropriations are made. Thus, any reporting of expenditures that relies solely on these four codes is not fully reflective of inmate healthcare costs. Finally, Finding 2 showed the costs of inmate healthcare services are not identifiable at the prison level; for example, the costs of contract nurses or outside hospital encounters are aggregated at the entire state level, and the costs of such services for one prison are sometimes reflected in another's budget. Without collecting such information at the prison-specific level, DPS Health Services staff are unable to identify which prisons might be driving cost increases.

The General Assembly should consider reallocating $70 million from DPS lapsed salary funds in sections outside inmate healthcare to DPS Health Services to better reflect the actual cost of providing these services. If the General Assembly pursues this option, it should consider soliciting the input of the department to identify which positions it relied upon for lapsed salary funds in Fiscal Year 2016–17 to fund its structural deficit. To realign the budget and make DPS Health Services budget-neutral, the General Assembly would need to eliminate these vacant positions used as a source of lapsed salary funds to fund inmate healthcare and transfer the funds to the budget fund codes for inmate healthcare as appropriate. Such a realignment would provide actual cost information on expenditures for inmate healthcare.

In addition, the General Assembly should direct DPS Health Services to conduct a review of its methods of accounting for expenditures to ensure all spending is reflected in one of the division's four designated budget fund codes. DPS Health Services should be required to conduct a review of its financial information and transfer any positions or lines of expenditure it relies upon from any other DPS budget fund code into one of these four division codes. Further, the General Assembly should direct DPS Health Services to revise its methods of budgeting and accounting for expenditures, such as for specific populations, to ensure health services expenditures are prison-specific. This requirement would ensure a prison's expenditures do not reflect any financial information for another prison or an overall category of expenditure except as necessary for central office functions. DPS Health Services should be required to report by October 1, 2019 to the Joint Legislative Oversight Committee on Justice and Public Safety on its progress in achieving these transfers and modifications to its financial practices.

Recommendation 5. The General Assembly should modify state law to reduce reimbursement rates paid to outside providers, direct DPS to modify information reported on claims, amend its contracts with two providers, and conduct internal audits of prevailing charges for outside services.

As discussed in Finding 3, current state law stipulates that community providers providing inmate health services for non-Medicaid-eligible inmates be reimbursed at the lesser of 70% of billed charges or two times (200%) the Medicaid rate. Four states require providers to be reimbursed at 100% of the Medicaid rate, and four other states connect their reimbursement rates to other state-sponsored programs (e.g., state health plans).

Finding 3 also showed that two outside entities are reimbursed at rates above those specified in statute; one entity is reimbursed at the lesser of 70% of billed charges or 280% of the Medicaid rate, and the second entity is reimbursed at the lesser of 94% of billed charges or 262% of the Medicaid rate. The Department of Public Safety (DPS) contends these less financially favorable terms for the State ensure access to care for inmates. However, no justification could be provided for the rates at which these

providers are reimbursed. Further, Finding 3 showed DPS does not conduct any audits of the prevailing rates outside providers charge for inmate services. State law grants DPS this authority, but the department has not exercised it.

The General Assembly should modify state law to reduce the Medicaid reimbursement factor from 200% to 100% of the Medicaid rate for outside services for non-Medicaid-eligible inmates.[48] Reducing the Medicaid reimbursement factor for outside providers would likely save the State at least $2.6 million annually. The General Assembly also should direct DPS to develop amendments for any other contracts in place, except for the two contracts with currently less-favorable terms for the State, to reflect the recommended statutory reimbursement rate of the lesser of 70% of billed charges or 100% of Medicaid's payment rate. For the two provider entities with contractual terms currently less favorable to the State (UNC Hospitals and Vidant Health), the General Assembly should direct DPS to develop contract amendments to specify reimbursement rates for these providers at the lesser of 70% of billed charges or 200% of Medicaid's payment rate. Reducing the current reimbursement rates for these providers would still provide an incentive for these providers and should sufficiently ensure access to care for inmates as the terms they enjoy would continue to be more financially advantageous than reimbursement rates for other providers.

Additionally, the General Assembly should modify reporting requirements to require DPS to include the rates at which contracted providers are reimbursed.[49] This revision would provide the General Assembly with fuller information and eliminate any potential confusion about the financial advantageousness of contractual relationships. Further, the General Assembly should direct DPS to develop an internal mechanism with associated policies and procedures to randomly audit high-volume providers at regular intervals to ensure adherence with billing at prevailing rates. DPS should report to the Joint Legislative Oversight Committee on Justice and Public Safety by October 1, 2019 on its actions to develop the recommended contract amendments for outside providers and its plan to audit prevailing charges.

Recommendation 6. The General Assembly should direct DPS Health Services, in conjunction with the Department of Health and Human Services, to obtain federal reimbursement for Medicaid eligibility activities and direct DPS social workers to regularly receive formal Medicaid policy training.

As Finding 4 discussed, DPS Health Services employs four full-time social workers who are responsible for pre-screening inmates with qualifying hospital admissions for potential Medicaid eligibility. For those inmates believed to meet Medicaid eligibility criteria, these social workers compile and submit necessary information to county departments of social services for Medicaid eligibility determinations. At present, these four positions are

[48] N.C. Gen Stat. § 143B-707.3(a).
[49] N.C. Gen Stat. § 143B-707.3(c).

entirely funded by state appropriations. Finding 4 further showed that administrative activities related to Medicaid eligibility determinations are eligible for federal cost sharing, but DPS Health Services has not attempted to access this federal assistance.

The General Assembly should direct the Department of Health and Human Services (DHHS) to modify the Medicaid State Plan, or obtain waivers or amendments as necessary, to allow for central DPS Health Services social workers to qualify for and receive federal reimbursement for performing inmate Medicaid eligibility activities. Further, DPS Health Services should be directed to develop formal policies and procedures to account for the time its social workers spend on Medicaid eligibility activities and to develop a mechanism, in collaboration with DHHS, for receiving federal funding for such activities. DHHS and DPS Health Services should report to the Joint Legislative Oversight Committee on Justice and Public Safety by October 1, 2019, and quarterly thereafter until full implementation is achieved, on progress made towards receiving federal reimbursement. This report should include the actions taken in the most recent quarter as well as any anticipated legislative actions necessary to ensure implementation is successful.

In addition, the General Assembly should direct central DPS Health Services social workers performing activities related to inmate Medicaid eligibility to receive eligibility determination training at least quarterly, as DHHS already provides to staff of county departments of social services. This policy training will help ensure social workers submit Medicaid applications for as many inmates as possible and will keep them informed of any new developments in eligibility policy.

Recommendation 7. The General Assembly should direct DPS Health Services to collect and analyze data on the disposition of Medicaid applications and to electronically transfer applications and accompanying documentation to county departments of social services.

As discussed in Finding 4, the methods by which central DPS Health Services social workers collect data on Medicaid eligibility activities does not provide meaningful information for continuous improvement. Not only is limited information collected on the rationale that social workers use when deciding not to submit a Medicaid application, but information on the disposition of submitted applications is not sufficient for ensuring the effectiveness of the pre-screening process; inmates for whom social workers did not submit an application are recorded identically to those for whom Medicaid applications were submitted but denied. Further, Finding 4 showed that central DPS Health Services social workers can submit Medicaid applications to county departments of social services electronically but continue to send them through U.S. mail or courier services.

The General Assembly should direct DPS Health Services to revise its method of collecting data on Medicaid applications to require social workers to indicate the criteria believed to disqualify an inmate for

Medicaid when they decide not to submit an application. In addition, social workers should be required to modify their data entry method to allow for the identification of eligibility determinations made by county departments of social services. Further, social workers should be required to report monthly to the Director of DPS Health Services on their work, including

- number of 24-hour community provider stays pre-screened for potential applications,
- number of applications submitted, and
- number and percentage of applications approved, denied, and withdrawn.

Following implementation, this reporting requirement should begin to include comparisons of year-to-date statistics for comparison.

In addition, the General Assembly should direct central DPS Health Services social workers to no longer submit Medicaid applications and supporting information via U.S. mail or courier (except for documented circumstances requiring paper copies) and instead submit these materials electronically through DHHS's ePass portal beginning October 1, 2019. DPS Health Services staff should be directed to obtain necessary credentials from DHHS for the submission of multiple applications through this system. DPS Health Services should report to the Joint Legislative Oversight Committee on Justice and Public Safety by October 1, 2019 on the implementation of these activities related to data collection, analysis, and submission of Medicaid applications.

Recommendation 8. The General Assembly should direct DPS Health Services, in consultation with the Office of State Human Resources, to perform a salary study of inmate healthcare-related positions and report anticipated costs and savings from identified recruitment and retention initiatives.

As reported in Finding 5, DPS Health Services is experiencing high staff vacancy rates. Prison facilities experience three primary challenges in recruiting and retaining health services staff. First, staff may feel unsafe working in an environment with violent offenders, especially when there are high vacancy rates among custody staff. Second, prisons in rural areas must compete with other employers for scarce health services staff. Finally, health professionals in prisons are often paid less than contracted staff and less than the health services staff of other area employers. DPS Health Services has undertaken a number of efforts in order to recruit more staff, including making work schedule adjustments, hiring more recruiters, and eliminating prior experience requirements; however, the effectiveness of recruitment and retention efforts is not being measured.

The General Assembly should direct DPS Health Services and the Office of State Human Resources (OSHR) to conduct a salary study of all in-prison health services employees to determine what adjustments are necessary to bring DPS Health Services staff salaries up to market rates both for new hires and existing employees. One state that formerly

experienced high vacancy rates for health services staff in correctional institutions reported in 2015 that vacancy rates were greatly reduced as a direct result of increasing wages.

DPS also should be directed to establish a vacancy rate benchmark for each facility and create a plan to reduce vacancy rates accordingly. The study should consider the following initiatives to reduce vacancy rates:

- increase pay up to market levels;
- create a department-level student loan forgiveness program;
- offer signing bonuses and annual cash incentives;
- make additional use of telemedicine positions;
- create dual appointment opportunities for doctors currently employed by the State;
- offer differential pay for health service workers employed in difficult-to-staff facilities;
- streamline and potentially eliminate duplicative or unnecessary steps in the hiring process; and
- pursue other initiatives as determined by DPS leadership.

This study should outline anticipated methods to measure the effectiveness of such initiatives and estimate budget impacts and anticipated savings from the reduced reliance on outside contracted healthcare staff. It should further include necessary legislative changes, exemptions from existing statutes, and assistance required from OSHR and the Office of Rural Health to accomplish plan objectives. The study should be submitted to the Joint Legislative Oversight Committee on Justice and Public Safety by February 1, 2020.

Recommendation 9. The General Assembly should direct DPS to establish policies and procedures identifying common physical health services that can be performed via telemedicine, establish metrics relating to its current telemedicine pilot program, and submit an implementation plan and business case for expanding the pilot.

As Finding 6 discussed, DPS Health Services's use of telemedicine is largely limited at present to psychiatric services. Although the division owns several pieces of equipment for performing physical health-related telemedicine services, such services have not been provided in several years and staff report the equipment is now outdated. DPS Health Services recently established a pilot program with an outside vendor to provide physical health services to inmates via telemedicine. However, the pilot does not appear to be sufficiently well-designed to facilitate an evaluation of its cost-effectiveness. Further, it is unclear to what extent consideration of telemedicine will be incorporated into prison staff decisions to send inmates to local hospital facilities for emergencies as part of the division's triage process.

The General Assembly should direct DPS Health Services to establish performance measures for the current pilot program to inform a business case for potential expansion of the pilot and should prohibit DPS from expanding the pilot until results can be demonstrated and reported. As

part of this business case, DPS Health Services should be required to quantify savings achieved from telemedicine visits as compared to in-person visits from medical staff by collecting information about which procedures (such as intake screenings, sick calls, triage, or chronic disease management) are most conducive to being treated through telemedicine. Further, DPS Health Services should be required to propose an implementation plan to expand telemedicine with accompanying estimated cost savings, which at a minimum should incorporate prison facilities that rely extensively on community hospital facilities. The General Assembly should require DPS Health Services to report on its business case for telemedicine to the Joint Legislative Oversight Committee on Justice and Public Safety by April 1, 2020, and annually thereafter on efforts, expenditures, and savings related to telemedicine.

Appendices

Appendix A: Inmate Healthcare Expenditures by State from Fiscal Year 2010 to Fiscal Year 2015

Appendix B: History of Legislative and Auditor Actions Related to Inmate Healthcare

Appendix C: DPS Health Services Staff Vacancy Rates by County

Appendix D: DPS Use of State-Owned Vehicles for Recruitment and Retention

Agency Response

A draft of this report was submitted to the Department of Public Safety for review. Its response is provided following the appendices.

Program Evaluation Division Contact and Acknowledgments

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