North Carolina Department of Public Safety
Division of Prisons

Roy Cooper, Governor
Erik A. Hooks, Secretary

Timothy D. Moose, Chief Deputy Secretary
Todd E. Ishee, Commissioner of Prisons
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MEMORANDUM

TO: Joint Legislative Oversight Committee on Justice and Public Safety
Joint Legislative Oversight Committee on Health and Human Services

FROM: Erik A. Hooks, Secretary EAH
Timothy D. Moose, Chief Deputy Secretary

RE: Telemedicine Pilot Program Assessment

DATE: January 7, 2021

Pursuant to Section 6.(d) of Session Law 2019-135, on or before January 1, 2021, the Department of Public Safety, Health Services Section, shall report to the Joint Legislative Oversight Committee on Justice and Public Safety and the Joint Legislative Oversight Committee on Health and Human Services on the assessment criteria outlined in subsection (c) of this section, including any additional findings, and shall make recommendations on whether to expand the telemedicine pilot program to additional sites, including accompanying costs and anticipated savings, and recommendation on which correctional facilities would be most advantageous to include in the pilot due to lack of access or costs associated with transportation and custody.

Assessment criteria outlined in subsection (c) include:

(1) Number and cost of telemedicine encounters by service area.

(2) Comparison of the number and cost of telemedicine encounters, by service area, to:
   a. The number of in-person encounters provided the previous year to inmates housed at that facility; and
   b. The number of in-person encounters provided during the pilot period at similar correctional facilities not participating in the pilot.

(3) Comparison of the number of days lapsed between referral date and treatment date, by service area, to:
   a. The number of days lapsed the previous year in that facility; and
   b. The number of days lapsed during the pilot period at similar correctional facilities not participating in the pilot.

(4) Amount of inmate transportation and custody costs avoided from receiving telemedicine.

(5) Amount of provider transportation costs avoided from providing telemedicine.

(6) Cost of initial telemedicine equipment and other related costs with descriptions.

(7) Obstacles and concerns related to expanding telemedicine to other correctional facilities.

Please find the report attached below.

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Prisons administration collected six months of data, from June 2020 through November 2020, to evaluate the Telemedicine Pilot as this period provides an in-depth perspective of the Telemedicine program against the same period in 2019 when the agency was not routinely conducting Telemedicine appointments. Due to COVID-19 restrictions throughout this time frame, routine medical escorted trips into the community for treatment were not conducted. Therefore, the Telemedicine program became the avenue for access to routine care with specialty providers during the pandemic. The following information is provided regarding the assessment of the Telemedicine program.

In-person encounters for specialty clinics during the period June 2019 to November 2019 were collected and reviewed to provide specific analysis with regard to the costs associated with correctional officer transports, payment for services to providers, and the amount of time elapsed between the referral to the treatment date. This analysis is provided in Table 1 below.

Table 1

Analysis of in-person encounters conducted during period June, 2019 to November, 2019 for specialty clinics.

In-Person Encounters
June, 2019 to November, 2019

Specialty Clinic	Encounters	Referral to Trmt (Mean days)	Referal to Trmt (Median days)	Est. Custody Costs	Outside Provider Costs	Total Costs
CARDIOLOGY	598	86.1	56.0	$183,640.50	$238,297.79	$421,938.29
EAR, NOSE, THROAT	316	56.6	35.5	$108,549.50	$164,691.35	$273,240.85
GASTROENTEROLOGY	198	69.4	54.0	$64,416.00	$91,934.42	$156,350.42
NEUROLOGY	118	94.1	82.0	$41,541.00	$39,247.39	$80,788.39
ORTHOPEDIC	1,203	36.2	26.0	$366,854.00	$286,898.10	$653,752.10
UROLOGY	323	59.9	42.0	$98,210.00	$133,806.37	$232,016.37
Grand Total	**2,756**	**57.0**	**37.0**	**$863,211.00**	**$954,875.42**	**$1,818,086.42**

Notes: Mean and Median Day are calculated based on the difference between the initial request for outside service and the service date.

Estimated Custody Costs are calculated as follows:

Round trip distance estimated using haversine calculation for distance between two GPS locations (prison and service location) and doubling for round-trip. Time is then calculated for distance based on an average of 45 MPH. 4 hours is added to average appointment length and total hours are multiplied by the number of officers required based on custody level assignment of offender with average salary of $30.05.

Additionally, Telemedicine encounters for specialty clinics were collected and reviewed to provide specific analysis with regard to the costs associated with payment for services to providers and the amount of time elapsed between the referral to the treatment date. (It should be noted that custody costs were not included in this analysis as offender transportation is not necessary with the Telemedicine program.) Data from the same period in 2020 provides the total time in which Telemedicine clinics operated and is relevant for comparing the two programs. This analysis is provided in Table 2 below.

Table 2

Analysis of Telemedicine encounters conducted during period June, 2020 to November, 2020 for specialty clinics.

Telemedicine Encounters
June, 2020 to November, 2020

Specialty Clinic	Encounters	Referral to Trmt (Mean Days)	Referral to Trmt (Median Days)	Est. Custody Costs	Outside Provider Costs	Total Costs
CARDIOLOGY	632	144.0	106.0	0.0	$ 88,279.97	$88,279.97
EAR, NOSE, THROAT	577	101.5	70.0	0.0	$ 89,723.50	$89,723.50
GASTROENTEROLOGY	142	164.0	157.5	0.0	$ 15,735.02	$15,735.02
NEUROLOGY	263	170.2	155.0	0.0	$ 38,398.00	$38,398.00
ORTHOPEDIC	590	151.7	133.0	0.0	$ 45,725.00	$45,725.00
UROLOGY	703	140.5	112.0	0.0	$ 139,194.00	$139,194.00
Grand Total	**2,907**	**139.6**	**115.0**	**$0.00**	**$ 417,055.49**	**$417,055.49**

In reviewing the raw data collected for the two previous periods and comparing the costs associated with both, it appears that operating the Telemedicine program will provide significant cost avoidance. Capital outlay has been necessary to secure the technology to support the Telemedicine program and should be considered to have a useful life of five (5) years. This must also be considered when analyzing the program's costs and potential for cost avoidance. Table 3 summarizes net costs avoided during the period June, 2020 to November, 2020 when comparing those costs associated with in-person treatment for the same period in 2019.

Table 3

Overall analysis of Telemedicine operating costs

Net Cost Avoidance in 2020 Resulting from Telemedicine Program

2019 Total In-Person Clinic Costs	$ 1,818,086.42
2020 Total Telemedicine Clinic Costs	$ 417,055.49
Gross Cost Avoidance	$ 1,401,030.93
Telemedicine Equipment	$ 597,975.00
Net Cost Avoidance in 2020	**$ 803,055.93**

Assuming that the six (6) month periods in 2019 and 2020 compared herein are adequate representations of costs for these two programs, the annualized costs for both programs can be projected to show the total operating costs which could reasonably be avoided annually. Given that the COVID-19 pandemic has been inserted into the 2020 cost projections and subsequent analyses, it is also reasonable to assume that in future years the Telemedicine program could be utilized at increasing rates as community health providers become more versed in the technology and more willing to utilize it. Table 4 provides the projected annualized cost avoidance sustained if DPS transitions to the Telemedicine program for the specialty areas analyzed in the preceding tables.

Table 4

Annualized cost avoidance projected if DPS transitions to Telemedicine program for the specialty clinics discussed above (Cardiology, ENT, Gastroenterology, Neurology, Orthopedic, and Urology).

Projected Annualized Cost Avoidance of Transition to Telemedicine

Specialty Clinics Cardiology, ENT, Gastroenterology, Neurology, Orthopedic, and Urology

Gross Cost Avoidance Annualized	$	2,802,061.86
Telemedicine Equipment Annualized	$	119,595.00
Net Estimated Annual Cost Avoidance	**$**	**2,682,466.86**

It should be noted that there is an increase in the referral to treatment mean and median days during the June 2020 through November 2020 timeframe. As previously indicated, due to the pandemic COVID-19 restrictions, no routine medical escorted trips into the community for routine or specialty treatment were conducted. However, previous planning for the telemedicine initiative allowed the Department to launch the program statewide during the early stages of the COVID-19 pandemic. As such, the Department was able to provide the necessary medical care to the offender population that otherwise would not been provided.

The telemedicine pilot had a tremendous positive impact on the day to day operation of the Department. It provided expanded access to specialty care without having the offenders leave the secure confines of their correctional facility. It kept our officers inside their facilities working instead of putting the public at risk by escorting offenders in the community. However, it did put additional burden on the limited number of healthcare staff at the local facilities. In addition to providing direct patient care in a pandemic environment, nursing staff had to serve as telepresenters for the program. Nursing staff had to be trained on the technology and equipment in order to make the program operational. As the telehealth clinic demands increased, as well as positive COVID-19 cases increased in the facility, non-clinical healthcare staff had to be re-directed and trained on the technology and equipment. Providers reported frustration with the equipment in the early stages of implementation but was resolved through additional training.

In order to expand the telemedicine pilot there must be clinical telepresenters dedicated to the program at each facility. The ability to have a dedicated telepresenter will insure the smooth operation of the clinic and the timely review of the consultants' recommendations at the local level. All of this is necessary to insure the continuity of care for the offender population.