



REPORT OF REVIEW

GREENVILLE HOSPITAL SYSTEM GREENVILLE, SOUTH CAROLINA

Home Health Telecommunications Project Grant No. SC-11569-94-I-302-0429 November 1, 1994 - December 31, 1995 and

Nurse Practitioner Telemedicine Project Grant No. SC-12097-95-I-302-0428 August 1, 1995 - December 31, 1996

OIG Report No. 97-23(H) January 28, 1997

I. INTRODUCTION

A. PURPOSE

The purposes of our review were (1) to determine the allowability of the costs claimed under the ARC grants, (2) to determine if the grant objectives were met, and (3) to determine the current status of the projects.

B. SCOPE

Our survey included procedures to review costs incurred and claimed for reimbursement under the grants, as well as costs claimed as matching funds. The period of performance for the grants was November 1, 1994 through December 31, 1995 for the Home Health Telecommunications Project and August 1, 1995 through December 31, 1996 for the Nurse Practitioner Telemedicine Project. We reviewed the grantee's reports, examined records, and held discussions with grantee officials and subcontractors in Greenville, Clemson and Mountain Rest, South Carolina November 18-20, 1996. As a basis for determining allowable costs and compliance requirements, we used the provisions of the grant agreements, Office of Management and Budget (OMB) Circulars A-110 and A-122, and the ARC Code.

C. BACKGROUND

Home Health Telecommunications Project

SC Grant SC-11569-94-I-302-0429 (contract 94-97) was awarded to the Greenville Hospital System to provide assistance in the establishment of a special pilot program in Greenville and

Pickens Counties to provide adequate health care to indigent residents in areas where such health care is not available.

The grantee indicated that one solution to meeting the need for primary care providers is to maximize their capacity through the use of physician extenders (nurse and nurse practitioners). The ARC project was to examine the cost of care and patient outcomes when telecommunications facilitate the extension of primary care physicians via linkages between home health nurses in patients' homes and attending physicians in a regional medical center. ARC funds were to be used for personnel costs and for the purchase of necessary equipment for a mobile telecommunications home health care unit.

The grant was for the lesser of \$154,011 or 30 percent of the actual, reasonable and eligible costs of the project. The grantee was to provide the non-federal share of \$366,332, or 70 percent in cash, contributed services, or in-kind contributions, as approved by ARC. The grantee's final expenditure report indicated that total project costs were \$447,631 including grant costs of \$131,875 and matching costs of \$315,756. Grant funds totaling \$22,136 were deobligated by ARC on August 22, 1996.

#### Nurse Practitioner Telemedicine Project

ARC Grant No. SC-12097-95-I-302-0428 (contract 95-101) was awarded to the Greenville Hospital System to provide funds to establish a telemedicine program which would provide physician back-up to an independent nurse practitioner clinic and a mobile health van in Oconee county, and measure the cost effectiveness and reliability of physician consultation to nurse practitioners in the delivery of primary care in a rural area. Specific tasks to be completed include:

- 1) Establish a nurse practitioner telemedicine program which will provide physician back-up to nurse practitioners in the delivery of primary care at the Nurse First Clinic and to rural sites which will be served by a mobile health van;
- 2) Provide personnel, equipment and supplies for the clinic and mobile health van as delineated in the incorporated proposal, including but not limited to: dedicated telephone lines, camcorder, laptop computer, "frame grabber", imaging attachments (ophthalmoscope and otoscope), electronic stethoscope and portable EKG machine; and
- 3) Evaluate the project.

The grant for the Nurse Practitioner Telemedicine Project was for the lesser of \$175,680 or 30 percent of the actual, reasonable and eligible costs of the project. The grantee was to provide the non-federal share of \$419,240 or 70 percent in cash, contributed services, or in-kind contributions, as approved by ARC. At the time of our review, the grant period had not ended

and the grantee had claimed \$155,222 in advance and progress payments and \$20,638 remained in the ARC account.

## II. SURVEY RESULTS

### A. FINANCIAL RECORDS

Article A10 of the Grant Administration Provisions included in the grant agreement require the grantee to “maintain a separate ‘grant account’ in which all funds provided for, accruing to, or otherwise received on account of this contract, and disbursements by the Contractor for the purpose of this contract shall be recorded.” It also requires grantees to “maintain custody of time records, payrolls, and other data, as appropriate, to substantiate all services reported to the Commission as Contributed Services under this contract.” OMB Circular A-122 requires recipients of federal grants to provide “Accurate, current and complete disclosure of the financial results of each federally-sponsored project...”

During our on-site visit, we found that the grantee did not maintain a separate account for each ARC grant and that an account into which some receipts and expenditures for the two grants were co-mingled was not accurate, current or complete. In addition, documentation was not readily available for some grant and matching expenses which were incurred and claimed under the two ARC grants. The primary problem related to identification and support for personnel costs. Specifically, we noted the following:

- 1) The grantee claimed and was reimbursed \$131,875 for grant expenses incurred under the Home Health Telecommunications Project, including \$83,808 for personnel costs. However, available accounting records indicated that total expenditures recorded for the two ARC grants through September 30, 1996 were \$31,747.28, including travel expenses totaling \$12,922.22 that were posted to the ARC grant account in error. Home Health equipment expenditures in excess of \$11,000 that should have been posted to the ARC grant account were posted to a different account in error and an expense for \$133.60 which was claimed by the grantee under the Home Health grant and paid by ARC was subsequently determined by the grantee to be an ineligible grant cost. Although the Home Health grant was closed out in August 1996, no personnel costs were ever posted to the grant accounting records and no documentation of the claimed costs were readily available at the time of our visit.
- 2) The grantee also claimed matching costs of \$160,756 for personnel and fringe benefits expenses incurred by the Greenville Hospital System under the Home Health project. No documentation for those costs was readily available at the time of our visit. The remaining match totaling \$155,000 was adequately documented.

- 3) We found that ARC payments were not always posted to the ARC account on a timely basis. An advance payment for the Nurse Practitioner grant totaling \$150,222 which had been disbursed by ARC in October 1996 had not been posted to the ARC account by the time of our visit in mid-November. The grantee's project director was informed during our visit that the payment had been located and would be posted to the ARC account. A \$5,000 payment disbursed by ARC in December 1995 was not posted to the ARC account until May 1996.

During our on-site review of the Nurse Practitioner grant, we were informed that a second subcontract with Clemson University was being finalized and the grantee agreed to provide a copy to our office. We also noted and discussed with the project director the need for documentation to support the matching expenditures that are required to be provided by or on behalf of the grantee. At the time of our visit, the grantee contacted the ARC Project Coordinator to advise him that they needed more time to complete the grant work and request a time extension. Subsequently, we discussed the grant with the ARC coordinator and understand that a 90-day time extension (through March 31, 1997) has been granted.

We discussed the above noted financial issues with the grantee's project director. The project director indicated that substantial personnel costs were incurred and that an individual familiar with federal grant requirements will work with the project director to correct the financial records, and ensure that the ongoing grant for the Nurse Practitioner Telemedicine Project is handled correctly. We understand that project management for the ARC projects suffered as a result of a project coordinator leaving the employ of the Greenville Hospital System after the ARC projects had begun.

**Recommendations:** We recommend that the grantee provide the following information regarding the Home Health Telecommunications Project to ARC program officials and adjust final reports as necessary. Actions should include:

- 1) Providing documentation to support grant costs claimed to ARC but not posted to official accounting records, including \$83,808 for personnel costs.
- 2) Providing documentation for personnel and fringe benefits costs totaling \$160,756 claimed as match.
- 3) Reimbursing ARC \$133.60 for an expenditure that was claimed but subsequently determined by the grantee to be an ineligible grant cost and initiating any additional adjustments based on identification of personnel costs.

We also recommend that the grantee ensure that ARC payments and expenditures are correctly posted to the grantee's official accounting records on a timely basis for the ongoing Nurse Practitioner grant and that documentation to support grant and matching costs is complete and

available for review. We also recommend that separate grant accounts be established if the grantee receives future ARC grants.

## B. INTEREST EARNED ON GRANT FUNDS

The grantee's accounting records indicate they earned \$3,827.30 in interest on advance and progress payments for the two ARC grants from December 1994 through September 1996. We are aware that the grantee might not have earned the interest if they had posted incurred expenses for salaries and other costs to their accounting records on a timely basis. However, OMB Circular A-110 indicates that "interest earned on Federal advances deposited in interest bearing accounts shall be remitted annually to Department of Health and Human Services, Payment Management System, Rockville, MD 20852."

**Recommendation:** We recommend that the grantee remit the interest earned on the ARC grant funds to the Department of Health and Human Services as noted above as required by Federal regulations.

## C. GRANT STATUS

### Home Health Telecommunications Project

The grantee indicated that the project resulted in a reduction of clinic visits, transportation costs and antibiotic use for the indigent patients who participated in the project and that it appeared that patient outcomes were comparable to routine care situations where patients receive care in their physician's office or through physician home visits. However, they found that actual costs increased because of a flaw they discovered in their system whereby project patients went to the emergency room when they were unable to get timely clinic appointments for minor medical problems unrelated to the project. The grantee addressed that problem by making it easier for patients to access the clinics for minor problems.

Grant funds were used to purchase five units of equipment which were used during the grant period by home health nurses. At the time of our visit three units were no longer being used at all and two were receiving minimal use. The grantee indicated that finding an acceptable method for charging the telemedicine service to various funding sources has been a stumbling block to using it more. The grantee indicated that the hospital is considering the establishment of a Wound Care Clinic which could utilize the grant equipment in the same way as was intended by the ARC grant. However, we also understand that the equipment purchased with ARC funds has become obsolete due to rapid advances in technology since the equipment was purchased.

### Nurse Practitioner Telemedicine Project

During our on-site review, we observed the operation of the Clemson University Nursing and Wellness Center mobile health van at Mountain Rest, South Carolina and visited with staff and

patients. The community is very supportive of the project and patients told us how much they appreciate the care they receive there. At the time of our visit, the grantee indicated they would need more time to complete the project due, in part, to delays in receiving project equipment, and we understand a time extension has been granted by ARC to March 31, 1997.

**Recommendations:** We recommend that the grantee advise ARC programs officials of how they plan to use the Home Health equipment purchased with ARC funds. We also recommend that the second subcontract with Clemson University for the Nurse Practitioner grant be provided to this office.

Hubert N. Sparks  
Inspector General



January 29, 1997

Dr. Donna J. Miller  
Greenville Hospital System  
701 Grove Road  
Greenville, NC 29605

re:    OIG Report 97-23(H), ARC Grants  
      SC-11569 and SC-12097

Dear Dr. Miller:

Enclosed is a copy of our draft report on the grants dealing with the home health telecommunications and nurse practitioner telemedicine projects. The draft report is provided in order to obtain any comments or information that you would like included in the final report.

As noted, the open issues pertain primarily to separately identifying and supporting the expenditures that were the basis of claims and the related matching contributions.

We would appreciate a response within 45 days.

Please call Jo Ann Brenner or me if you have any questions.

Sincerely,

Hubert N. Sparks  
Inspector General

Enclosure

**GHHS** MEDICAL  
EDUCATION

---

Donna J. Millar, MD  
Academic Chair, Transitional Residency Program  
Medical Director, Home Health and Subacute Services  
Chair, Department of Community Medicine  
Community Outreach  
Telemedicine

July 14, 1997

Hubert N. Sparks  
Inspector General  
Appalachian Regional Commission  
1666 Connecticut Avenue, NW  
Washington, DC 20235

RE: OIG Report 97-23(H), Grants SC-11569-94 and SC-12097-95

Dear Mr. Sparks:

A refund check for \$3,827.30 is enclosed for the interest earned on the ARC grant funds awarded to the Greenville Hospital System.

In reviewing the account for the first project (Home Health Telemedicine) in preparation for closing out the account, we discovered that ARC paid the Greenville Hospital System \$6522 which we requested from ARC in error.

To summarize a complicated series of events, I purchased \$6522 worth of equipment from Circuit City two years ago, processed a check request for that amount and debited the ARC account in my records. When our capital equipment department generated a purchase order for the equipment, Circuit City quoted a figure of \$6362 (they left out two pieces of equipment I had purchased.) Unknown to me, the capital equipment department then voided my check request and replaced it with a request for \$6362, which Circuit City then accepted as payment in full.

All this time I thought that the \$6522 had been keyed incorrectly by accounting and paid from another account somewhere in the Greenville Hospital System and that I needed to reimburse that account. It took several months of tracking down the original documentation to figure out what actually happened, since it was two different check request numbers, for different amounts, with different dates. Since ARC has reimbursed the \$6362, I basically have received reimbursement for the same equipment twice. I will therefore refund the \$6522 to ARC, which will happily balance the account.



I called Henry King yesterday after meeting with the accounting director and figuring all this out. I will send the refund check made out to ARC to Henry per his instructions. Once this last check is processed the account will be closed out and I will send you a copy of the final reconciliation.

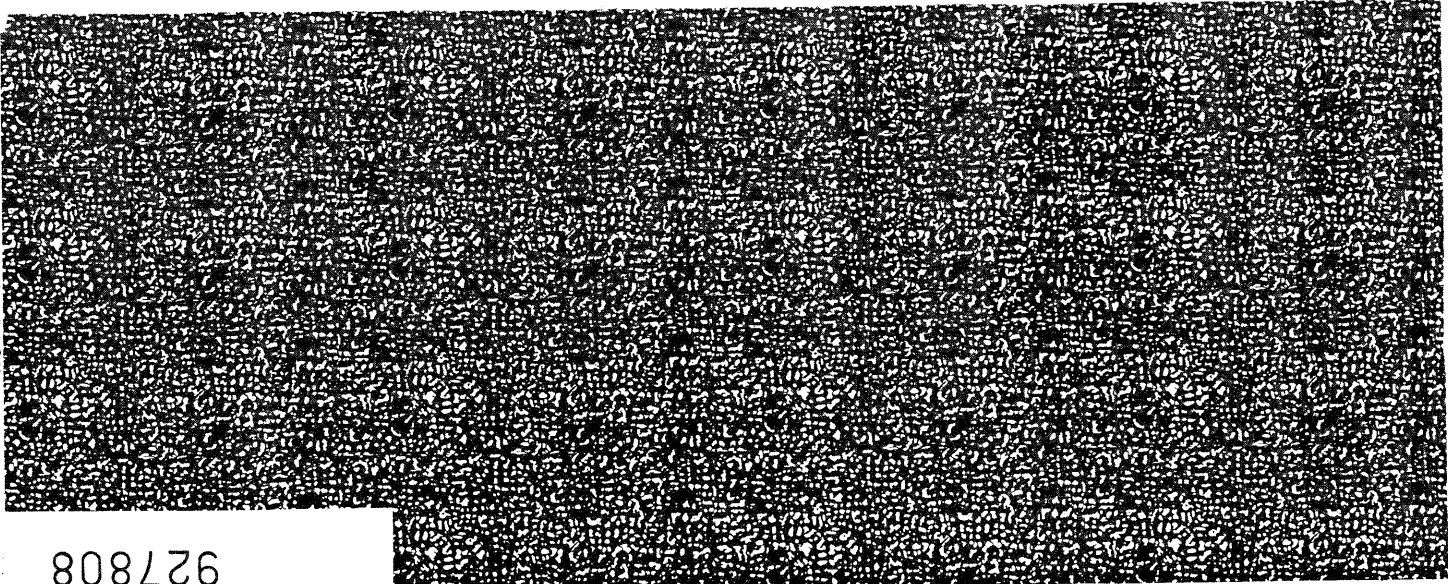
The second project (Nurse Practitioner Telemedicine) has gone well and all documentation is appropriate. I am in the process of completing the final report for that project and closing out that account as well.

Thank you for your assistance in negotiating the complex rules of federal grantsmanship and your patience with my numerous missteps.

Sincerely,

A handwritten signature in cursive script that reads "Donna J. Millar".

Donna J. Millar, MD



808726

**Greenville Hospital System**

701 Grove Road  
Greenville, SC 29605

US DEPT OF HEALTH & HUMAN SER  
P O BOX 6048  
NATIONAL PRACTITIONER DAT  
CAMARILLO, CA 93011-6050



SYGEN7

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND ON WHITE PAPER

THE REVERSE SIDE OF THIS DOCUMENT HAS AN ARTIFICIAL WATERMARK



# Greenville Hospital System

701 Grove Road  
Greenville, SC 29605

CAROLINA FIRST BANK  
GREENVILLE, SOUTH CAROLINA

67-188  
532

# 00005981

DATE  
04/29/97

CHECK NO.  
00005981

NET AMOUNT  
\*\*\*\*\*3,827.30

PAY

THREE THOUSAND EIGHT HUNDRED TWENTY SEVEN AND 30/100 DOLLARS

VOID AFTER 180 DAYS  
GHS CORPORATE ACCOUNT

TO THE  
ORDER  
OF

US DEPT OF HEALTH & HUMAN SER  
P O BOX 6048  
NATIONAL PRACTITIONER DATA BANK  
CAMARILLO, CA 93011-6050

*James D. ...*  
PRESIDENT  
*James J. ...*  
ACTING VICE PRESIDENT, FINANCE

⑈00005981⑈ ⑆053201885⑆ ⑆010038051⑈

↑ PLEASE DETACH BEFORE DEPOSITING ↑

GREENVILLE HOSPITAL SYSTEM  
CORPORATE ACCOUNT  
701 GROVE ROAD, GREENVILLE, S.C. 29605  
SY-000-A2581

GREENVILLE HOSP SYSTEM

00005981

INVOICE NUMBER	AMOUNT	DISCOUNT	NET AMOUNT
108809	3,827.30	.00	3,827.30
TOTALS	3,827.30	.00	3,827.30

97-23(H)



---

Subacute Services

March 14, 1997

Mr. Hubert N. Sparks  
Inspector General  
Appalachian Regional Commission  
1666 Connecticut Avenue  
Washington, DC 20235

RE: OIG Report 97-23(H), ARC Grants SC-11569 and SC-12097

Dear Mr. Sparks:

Enclosed is my reponse to the draft report you provided me of the results of your audit of the above grants.

We have worked diligently to correct the issues of concern, and trust that you will find our documentation of the management of the funds to be satisfactory in the future.

My responses refer to the specific sections of the report, which are cross-referenced by page number and paragraph.

I appreciate very much Jo Ann Brenner's helpfulness in explaining the necessary procedures, and her tolerance of my need to learn more about federal grants management. Thanks to you both for your input.

Please let me know if further information is needed.

Sincerely,

*Donna Millar*

Donna J. Millar, MD

Enclosures

## A. FINANCIAL RECORDS (Reference page 3)

Separate accounts have been established for the two grants. The "Home Health Telemedicine Wound Care Project" grant is number 24-2600.830, as before. A new account has been established in the GHS Foundation by Sylvia Sayre for management of the "Nurse Practitioner Telemedicine Project" funds. (See letter, Attachment I.)

1. The travel expenses of \$12,922.22 that were erroneously posted to the account were corrected at the time of the audit. Equipment expenses were not posted properly. (For corrections, see Attachment II.) During my review, a total of \$20,177.76 costs for equipment were found that had been paid from a capital equipment account instead of the ARC account. Two additional invoices which were never posted were found, for \$188.97 and \$179.00. The \$133.60 which was improperly posted had been refunded but not paid back to the account. \$500 charged to ARC for Mike McLeod's configuration of equipment included \$80 in telephone answering service charges, which should not have been posted.. Also, postings for Krinna Patel's stipend (\$16,000) and salary for myself (\$62,400) and Dianne Hunter (\$5,408) have been placed. Documentation of these personnel costs is enclosed. (See Attachments III and IV). The corrected account will be forwarded to you when all postings have cleared. A corrected final budget is enclosed as well. (Attachement V). I owe ARC  $\$133.60 + 80.00 = \$213.60$  in personnel costs erroneously posted to the account and re-imbursed by ARC. But ARC owes me  $\$188.97 + \$179.00 = \$367.97$  in equipment that was purchased but never reimbursed. The bottom line, you will note, is that my revised budget shows a difference of \$229 total in ARC funds from what was originally requested and re-imbursed by ARC.

2. Documentation of the matching costs of \$160,756 for personnel and fringe benefits expenses for the Home Health project was obtained by the Clemson graduate student, Krinna Patel, for our analysis of the relative costs of the "routine" patient care group versus the "telemedicine" patient care group. The personnel figures came directly from charges that were generated by the nurses for the visits, which were submitted as usual by the nurses performing the visits for documentation purposes but not charged to the patients who were participating in this project. Documentation of these are in Krinna's master's thesis, which was submitted as part of my final report. Specifically, pages 56 and 57 (Attachments VI and VII) list the costs. Personnel costs included nursing charges (listed as Total Nursing Charge and Total Nursing Aide Charge on each page.) The nursing personnel cost was \$145,838. (Actually, in double checking these figures, I now get \$145,899, apparently having failed to add in the \$61 charge circled in the attachment. But since the original amount is less and this was match, I left it the same.) Additional match for GHS was fringe benefits for the time spent by myself and Dianne Hunter on the project, or 22% of \$62,400 and \$5,408, which comes to \$14,918. Total match is therefore  $\$145,838 + \$14,918 = \$160,756$ .

3. The difficulty in having timely postings to the account has been corrected by establishing the second ARC account with the GHS Foundation. Sylvia Sayre is knowledgeable in federal grants requirements and will assist in the management of the funds.

#### B. INTEREST EARNED ON GRANT FUNDS

The \$3,827.30 in interest accrued to the ARC account is being refunded to the Department of of Health and Human Services as required. The check is being mailed to Mr. Sparks.

#### C. GRANT STATUS

The Home Health equipment purchased with ARC funds will be used in conjunction with the Wound Care Clinic that is being established by the Department of Surgery for intensive wound management. Two additional nurses who will use the equipment in the home have been identified. Also a second home health agency, Interim Health Care, has expressed an interest in participating with me in wound care management utilizing the equipment and will provide a third wound care nurse. Since the data-gathering period for the project has ended and the project no longer requires oversight by the GHS Institutional Review Board, use of the equipment will no longer require the extensive and cumbersome consent and randomization process. Patients are now being routinely managed with the telemedicine equipment as clinically indicated.

The second subcontract with Clemson University is enclosed. (Attachment VIII.)

Donna J. Millar, MD  
Project Director

MEMO

11-23-96

TO: Betsy Pearson

FROM: Tom Mundell  
Dr. Donna Millar *DM*  
Sylvia Sayre *SS*

SUBJECT: Telemedicine II Fund Transfers

In order to more accurately record income and expenditures of two grants from the Appalachian Regional Commission (ARC), the ARC Grant Special Fund 2600 830 and the Telemedicine II Fund 20 4925 240 000 XXXX, Dr. Donna Millar would like to have the following transfers made:

1. Transfer from 2600 830 ARC Grant Special Fund a \$5,000 deposit to Telemedicine II Fund 20 4925 240 000 XXXX. This was the first deposit for the second Telemedicine Project (Mountain Rest/Seneca) granted by ARC received in December 1995.
2. Transfer from 2600 830 ARC Grant a \$5,000 expense payable to San Mac Electronic Services for equipment configuration to the Telemedicine II project 20 4925 240 000 XXXX.
3. Transfer from 2600 830 ARC Grant a \$29,410 expense payable to Welch Allyn Inc. for equipment to the Telemedicine II project 20 4925 240 000 XXXX.
4. Transfer from 2600 830 ARC Grant a \$2,250 expense payable to San Mac Electronics for computer configuration to the Telemedicine II project 20 4925 240 000 XXXX.

Attachments to support the transfers are attached. If you have any questions, please call Sylvia at 5-5810. Thank you for your time and assistance with these transfers.

cc: Veronica Stewart

EQUIPMENT

<u>Paid and debited</u>		invoice #	amt.
Circuit City	3/21/95	29013	6,362.87
D. millar/Circuit City	1/11/95	76070	5,091.27
Jim Parker	3/15/95	83129	574.67
Computerland	3/1/95	09067	238.35
(posted as \$175.35 and \$63.00)			
D. millar/Best Buy	6/21/95	90043	72.42
D. millar/Best Buy	3/10/95	83925	136.36
D. millar/circuit City	9/1/95	93076	929.12
			<u>13,405.06</u>

Paid but not debited (posted to capital account)

Circuit City	2/14/95	83906	\$6751.27
Circuit City	3/30/95	83138	146.94
Circuit City	11/14/95	97534	10,709.82
D. millar	6/21/95	90042	718.49
Jim Parker	12/23/94	76429	1,593.92
Boise Cascade	11/25/94	0700893	257.32
			<u>20,177.76</u>

Never paid

D. millar /Best Buy	11/14/95		188.97
D. millar /New mml	7/28/95		179.00
			<u>367.97</u>



TOTAL EQUIPMENT

13,405.06

20,177.76

367.97

33,950.79

Donna J. Millar, MD

Documentation of hours worked on Home Health Telemedicine Wound Care Project

Notification of grant award : April , 1994

	<u>Month</u>	<u>Hours</u>
1994	May	16
	June	36
	July	49
	August	40.5
	September	11
	October	23
	November	64.5
	December	71
1995	January	85.5
	February	97
	March	134.5
	April	93.5
	May	118.5
	June	83
	July	94
	August	62
	September	80.5
	October	113.5
	November	99
	December	42.5
1996	January	114
	February	<u>105</u>
		1633.5 Total Hours

**Dianne Hunter, PhD.**

**Monthly documentation of "Home Health Telemedicine Wound Care Project" hours**

**ARC Grant SC-11569-94-I-302-0429 (Contract 94-97)**

<b>October, 1994</b>	<b>22 hours</b>
<b>November, 1994</b>	<b>20 hours</b>
<b>December, 1994</b>	<b>18 hours</b>
<b>January, 1995</b>	<b>24 hours</b>
<b>February, 1995</b>	<b>20 hours</b>
<b>March, 1995</b>	<b>20 hours</b>
<b>April, 1995</b>	<b>21 hours</b>
<b>May, 1995</b>	<b>18 hours</b>
<b>June, 1995</b>	<b>18 hours</b>
<b>July, 1995</b>	<b>17 hours</b>
<b>August, 1995</b>	<b>20 hours</b>
<b>September, 1995</b>	<b>22 hours</b>
<b>October, 1995</b>	<b>18 hours</b>
<b>November, 1995</b>	<b>17 hours</b>
<b>December, 1995</b>	<b><u>20 hours</u></b>
<b>TOTAL</b>	<b>295 HOURS</b>

BUDGET DETAIL  
HOME HEALTH TELEMEDICINE PROJECT

	GHS	ARC	BELLSOUTH	
<u>PERSONNEL</u>				
NURSING	145,838			
PHYSICIAN (1560 hrs. @ \$40/hr)		62,400		
GRAD. STUDENT STIPEND		16,000		
PROJECT ADMINISTRATOR		5,408		
CONFIGURATION OF EQUIPMENT		<del>634</del> 420		
<u>FRINGE</u> (at 22%)	14,918			
<u>SUPPLIES</u>		13,925		
<u>EQUIPMENT</u>		<del>33,508</del> 33,951		
<u>CONSULTATION</u>			155,000	
Equipment integration				
<u>TOTAL</u>	160,756	<del>131,875</del> 132,104	155,000	447,631

Appendix DData Used to Calculate Average Cost Per Visit Per Patient

Table V. Telemedicine Group

Patient #	Total # of visits	Total Nursing Charge*	Total Nursing Aide Charge*	Total Supplies Charge*	Total Clinic-ER Charge*	Cost per Visit*
1	38	3648.00	976.00	1123.18	400.00	161.77
2	8	768.00	----	463.00	----	153.88
3	9	864.00	----	917.40	----	197.93
4	22	2112.00	----	896.00	1000.00	182.18
5	20	1920.00	----	101.10	200.00	111.06
6	29	2784.00	----	108.10	----	99.73
7	7	672.00	----	206.00	200.00	154.00
8	77	4032.00	3904.00	719.20	200.00	115.00
9	27	2592.00	----	234.60	----	104.69
10	66	6336.00	----	237.40	200.00	102.63
11	3	288.00	----	24.60	400.00	237.53
12	16	1291.00	122.00	----	----	88.31
13	17	1632.00	61.00	400.30	200.00	134.90
14	29	2784.00	----	210.70	600.00	123.96
15	41	3936.00	----	785.30	----	115.15
16	151	11904.00	7320.00	951.75	----	133.61
Average cost per patient per visit						138.52

\* all charges are in dollars

Nursing Charges \$ 59,946  
 \$ 7378.23 supplies

Appendix D (Continued)

Table VI. Usual Care Group

Patient #	Total # of visits	Total Nursing Charge*	Total Nursing Aide Charge*	Total Supplies Charge*	Total Clinic-ER Charge*	Cost per Visit*
1	18	1728.00	----	227.20	600.00	141.96
2	9	864.00	----	----	200.00	118.22
3	10	768.00	366.00	58.40	----	119.24
4	36	3456.00	----	101.90	600.00	115.50
5	23	2208.00	427.00	171.25	----	122.01
6	30	2880.00	----	119.80	600.00	119.99
7	87	8160.00	122.00	315.75	----	98.83
8	63	6048.00	----	315.60	----	101.01
9	29	2784.00	----	481.98	1200.00	154.00
10	22	2112.00	----	83.40	----	99.79
11	31	2976.00	----	24.50	200.00	103.24
12	239	22944.00	----	2300.35	----	105.62
13	7	672.00	----	53.20	200.00	132.17
14	31	2766.00	----	230.38	200.00	103.11
15	41	3936.00	----	636.50	400.00	121.28
16	12	864.00	549.00	684.65	----	174.80
17	69	6624.00	183.00	162.00	----	101.00
18	16	1476.00	----	65.20	----	96.33
19	65	6240.00	----	255.80	1000.00	115.32
20	50	4800	----	610.05	----	108.20
Average cost per patient per visit						117.23

\* all charges are in dollars

Nursing Charges	\$ 85,953	
+	59,946	
Total Nursing	145,899	
		↓
		6546.77
		+ 7378.23
		13,925 Total Supplies

# SUBCONTRACT AGREEMENT

between

GREENVILLE HOSPITAL SYSTEM

and

CLEMSON UNIVERSITY

This Contract is made and entered into by and between the Greenville Hospital System, Division of Medical Education and Research (hereafter referred to as GHS) and Clemson University (hereafter referred to as CU).

## Article I. Scope of Work

The Appalachian Regional Commission has awarded to GHS Agreement No. 95-101SC-12097-95-I-302-0428 for support of the project entitled: "Nurse Practitioner Telecommunications Project." To achieve the goals of this specific project, CU agrees to accomplish the following objectives:

Establish telecommunications linkage between a nurse practitioner mobile health clinic in a rural setting and the primary care physicians at a regional medical center (GHS).

Explore the practicality of inexpensive, one-way still-image video and two-way audio transmissions over conventional telephone lines.

Explore the cost-effectiveness and practicality of using this model to provide comprehensive primary care to under served areas.

Establish the remote telemedicine site in Mountain Rest Community utilizing nurse practitioners from School of Nursing (CU) and physicians from GHS.

Evaluate the model as a clinical practice site for nurse practitioner students.

Determine the types of community education needed and develop the tools and programs.

Explore the feasibility of establishing a community education resource center in Mt. Rest.

## Article II. Period of Performance

The period of performance for this contract shall be from August 1, 1996 to July 1, 1997.

## Article III. Direction of the Project

The GHS Project Director is Donna J. Millar, M.D. The project is administered at CU through the Biomedical Cooperative under Dr. Dave Gangami's coordination.

The project personnel are:

**Co-Project Directors:** Barbara Logan and Linda Crew. Responsible for the overall coordination and direction of the project.

**School of Nursing Faculty Coordinator:** Syble Oldaker. Responsible for the coordination and supervision of nurse practitioner students on the project as well as direct delivery of primary health care.

**Clinic Coordinator:** Paula Watt-Gilstrap, FNP. Responsible for the delivery of primary health care and related follow-up.

**Physician Preceptor:** Donna Millar, M.D. Responsible for approval of all protocols and medical supervision of nurse practitioners.

**Physician Backup:** David Irvine, M.D.

**Community Educator:** Sara Ayers Bagby. Responsible for assessing community needs for health education and developing the tools and programs.

**Program Evaluator/Data Manager:** Veronica Parker. Responsible for the development of data collection tools, supervision of graduate assistant, and analysis of data.

**Graduate Assistant(s):** Assists with the design of data collection tools, collection and analysis of data.

**Technical Support:** Mike McLeod. Responsible for installing, testing, and troubleshooting telecommunications equipment.

#### Article IV. Payment

The total amount of this contract shall not exceed \$93,000. Payment will be made upon submission of an invoice. The invoice must contain supporting documentation of expenditures. Invoices shall be prepared in quadruplicate and submitted to Dr. Millar.

All expenditures and work performed shall be in accordance with OMB Circular A-122, "Cost Principles for Non-Profit Organization" and OMB Circular A-110, "Uniform Administrative Requirements of Grants, Agreements With Institutions of Higher Education, Hospitals and Other Non-Profit Organizations", OMB Circular A-128 or A-133 for Audits, whichever is appropriate, and DHHS Publication No.(OASH)94-50.000(Rev.)April 1, 1994 "PHS Grants Policy Statement".

In the event that any payment to CU is subsequently disallowed by GHS, CU shall repay the amount to GHS upon written notification.

#### Article V. Accounts, Audits and Records

CU shall maintain books, records, documents and other evidence, accounting procedures and practices, sufficient to properly reflect all costs of whatever nature it claims to have incurred in the performance of this contract. CU shall preserve and make available its records until the expiration of three years after the termination of the contract.

#### Article VI. Liability

CU is and will be acting as an independent contractor in the performance of this work, and it shall be solely responsible where found liable to the extent covered by its insurance for the



payment of any and all claims for loss, personal injury, death, property damage or otherwise, arising out of any act or omission of its employees or agents, acting within the course and scope of their employment in connection with the performance of this work.

**Article VII. Publications**

Publications, journal articles, etc. produced under this Appalachian Regional Commission (ARC) grant project will bear an acknowledgment and disclaimer, as appropriate, such as:

"This publication (journal article, etc.) Was supported by ARC Contract Number 95-101SC-12097-95-I-302-0428 awarded to the Greenville Hospital System from the Appalachian Regional Commission. Its contents are solely the responsibility of the authors and do not necessarily represent the official view of the Appalachian Regional Commission".

**Article VIII. Patent Right Clause**

The standard Patent Right Clause dated April 1, 1984, Appendix A to OMB Circular No. A-14 as published in the Federal Register, Vol. 49, No. 55, Tuesday, March 20, 1984 is made a part of this award by reference as though fully set forth herein.

**Article IX. Amendment**

Changes to the terms and conditions of this agreement shall be mutually agreed upon by written amendment.

**Article X. Termination**

If at any time ARC Contract No. 95-101SC-12097-95-I-302-0428 is terminated or reduced in any manner, this contract shall also be terminated or reduced upon receipt by CU of written notice to that effect from GHS.

**CLEMSON UNIVERSITY**

**GREENVILLE HOSPITAL SYSTEM**

\_\_\_\_\_  
Chief Research Officer

  
\_\_\_\_\_  
Vice President,  
Division of Medical Education and Research