WEST AFRICA
SMALLPOX ERADICATION/MEASLES CONTROL PROGRAM

SURVEILLANCE REPORT NO. 2

Department of Health, Education, and Welfare
Public Health Service
Communicable Disease Center
Smallpox Eradication Program
Atlanta, Georgia 30333

September 1, 1966

Prepared by: Statistics Unit
Smallpox Eradication Program

According to notifications received by the World Health Organization through August 11, 1966, 5,689 cases of smallpox have been reported from the 19 countries participating in the West African Smallpox Eradication/ Measles Control Program. This compares with 4,537 cases reported during a comparable time period in 1965, an increase of 25 percent. The numbers of cases reported by country are shown in Table 1.

Cases by week of report are depicted in Figure 1 for Dahomey, Mali and Niger. These 3 countries, along with Nigeria, have accounted for more than 95 percent of the reported smallpox in West Africa in 1966. In Dahomey, 59 of the 214 cases (through week 25) were reported during the 7th week of the year. Of these, 48 were from the Cercle of Aplahoue and probably represent a backlog of delayed reports as no additional cases have been reported from Aplahoue since that report. Eighteen cases have been reported from the Cercle of Cotonou, of which 12 were reported in June.

The three peaks in reported cases in Mali, weeks 7, 11 and 23, again probably represent backlogs of delayed reports. Of the 78 cases reported from the Cercle of San, 67 were reported during weeks 7 and 11. This same pattern of a few reports of high incidence separated by weeks during which no cases are reported is also true for the Cercles of Diré and Nioro where 48 and 41 cases, respectively, have been reported.

Weekly reports from Niger have been more consistent with the exception of the Cercle of Tillabery where 136 of the 149 cases reported have been reported during the weeks ending February 2, February 14 and May 24 with essentially no cases reported between these dates. Reporting has been more consistent from the Cercles of Niamey and Dosso where 146 and 130 cases have occurred, respectively.

Smallpox in Nigeria by month of report since 1962 is presented in Figure 2. An annual seasonal peak occurring in the early months of the year (dry season) is evident. During the current year, reported smallpox cases have increased for the second successive year following two low years, 1963 and 1964.

Table 1

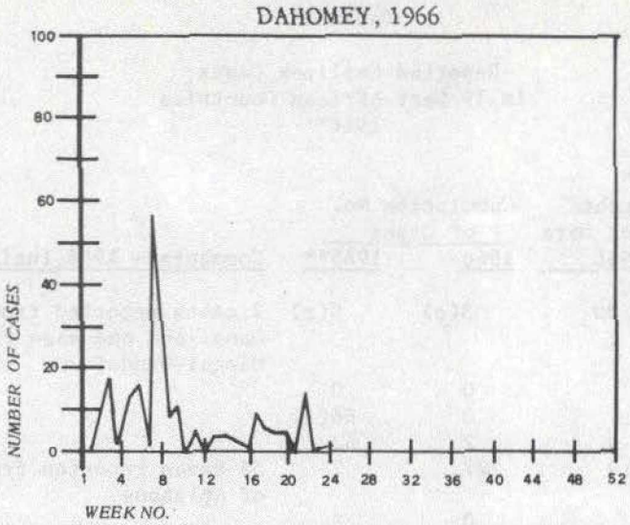
Reported Smallpox Cases
in 19 West African Countries
1966*

Country	Most Recent Reporting Date in 1966	Cumulative No. of Cases 1966	1965**	Comments - 1966 Incidence
Cameroon	April 30	3(r)	0(r)	2 cases reported from Division of Mayo-Danai and one case from Division of Margui-Wandala.
C.A.R.	***	0	0	
Chad	***	0	66(i)	
Congo(B)	April 3	2	63	
Dahomey	July 19	222	7	52 cases reported from circumscription of Aplahoue
Gabon	***	0	1	
Gambia	March 15	3	1	3 cases from Upper River, Division.
Ghana	June 10	12(i,r)	6	Kpandu District, Volta Region, declared free of smallpox on August 5.
Guinea	Feb. 26	3	28	
Ivory Coast	***	0	3	
Liberia	***	0	49	
Mali	July 24	249	521	78 cases reported from Cercle of San, 48 from Cercle of Diré, and 41 from Cercle of Nioro.
Mauritania	July 28	0(r)	0	WHO telegram of August 18 reports smallpox in Cercle of Hodh Occidental.
Niger	July 28	827	299	Over 130 cases reported from each of the Cercles of Tillabery, Niamey and Dosso.
Nigeria	July 16	4181	3428	Over 3400 cases reported from the Northern Provinces.
Senegal	***	0	0	
Sierra Leone	July 9	99(i)	46	49 cases, including 17 deaths, reported from Eastern Provinces since late March.
Togo	July 3	37	9	8 cases reported from Region des Plateaux in late May.
Upper Volta	April 26	51	10	40 cases reported from Cercle of Bobo-Dioulasso.
	Total	5689	4537	

* Reports received by WHO through Aug. 11, 1966.
** Comparable time period in 1965.
*** No cases reported to WHO through Aug. 11, 1966.
(i) Includes imported cases.
(r) Revised.

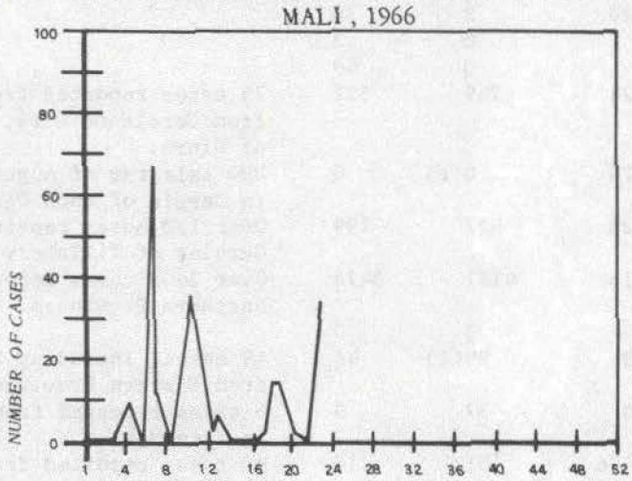
FIGURE 1

SMALLPOX CASES BY WEEK OF REPORT
DAHOMEY, 1966



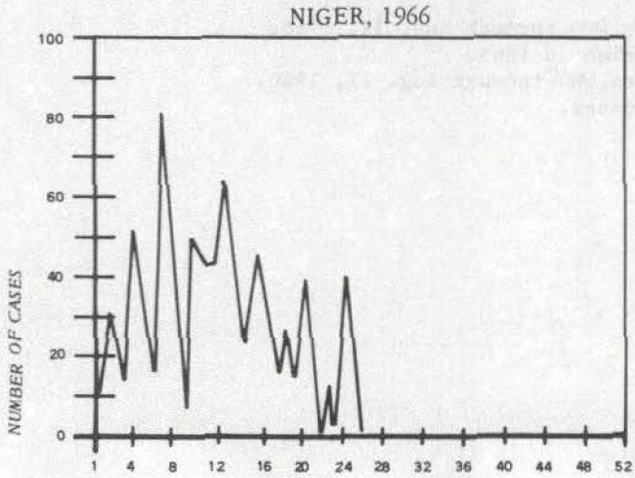
SOURCE: WHO REPORTS

SMALLPOX CASES BY WEEK OF REPORT
MALI, 1966



SOURCE: WHO REPORTS

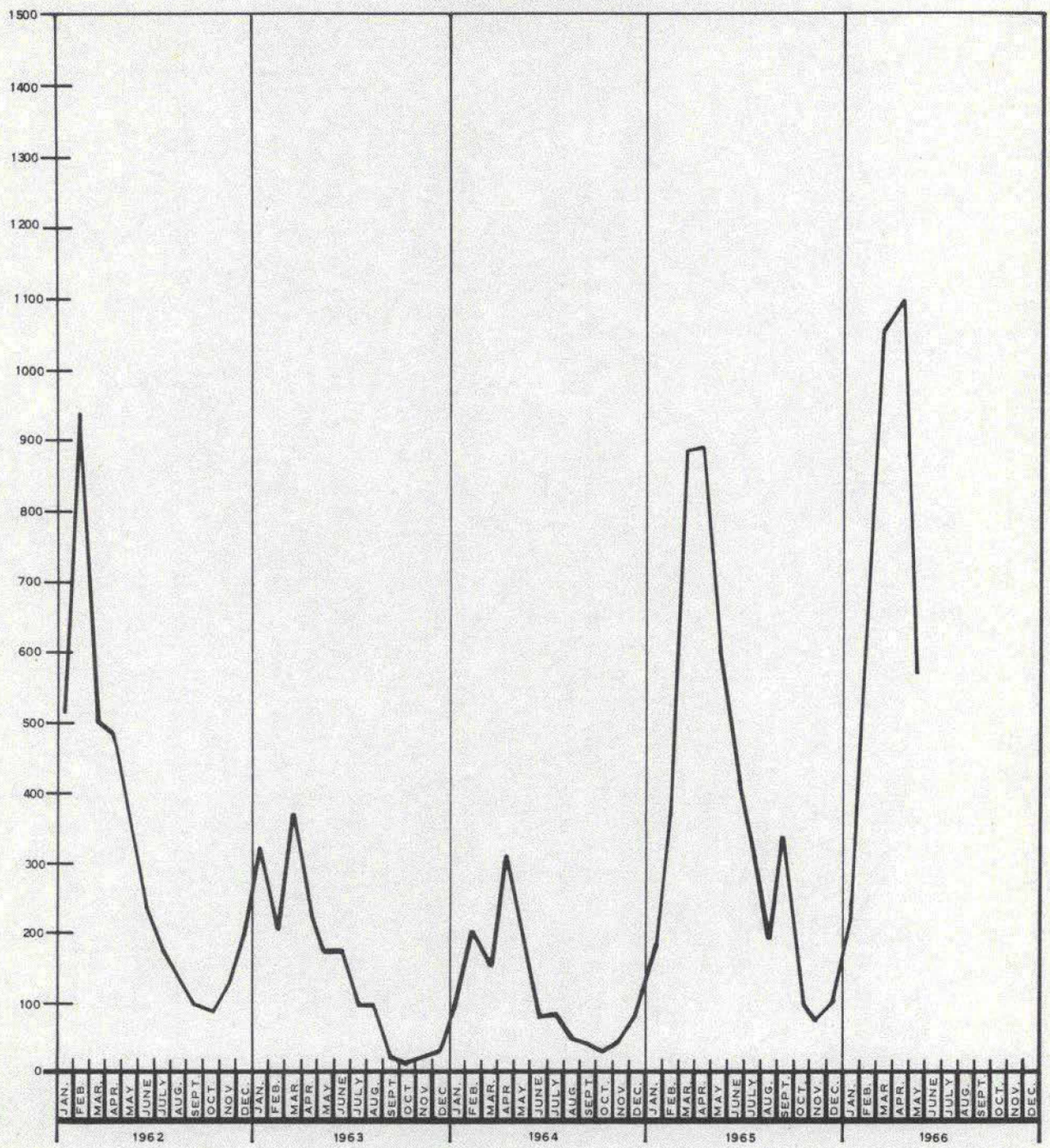
SMALLPOX CASES BY WEEK OF REPORT
NIGER, 1966



SOURCE: WHO REPORTS

FIGURE 2

SMALLPOX BY MONTH OF REPORT
NIGERIA, 1962 – 1966



SOURCE: MINISTRY OF HEALTH, LAGOS.

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December 7, 1966

TO : Chief, Communicable Disease Center

FROM : Chief, Smallpox Eradication Program

SUBJECT: Status Report #1

In January, 1966, the Public Health Service created the Smallpox Eradication Program within the Office of the Chief, Communicable Disease Center. This program was delegated full technical, administrative and operational responsibility for the AID financed West Africa Smallpox Eradication/Measles Control Program in addition to continuing domestic smallpox surveillance and investigations activities.

I. PERSONNEL

A. Current Status

A headquarters staff based at the Communicable Disease Center, in addition to providing overall direction, guidance and assistance to the program, will be carrying out multifaceted investigative and training activities pertaining to the epidemiology of smallpox and measles and application of vaccines.

Headquarters Staff

J. Don Millar, M.D.	Medical Officer
Henry M. Gelfand, M.D.	Medical Officer
Ronald R. Roberto, M.D.	Medical Officer
Leo Morris, M.P.H.	Statistician
Mary Anne Lyle	Statistical Assistant
Bill G. Griggs, B.A.	Program Management Officer
Fay B. Hendricks	Administrative Officer
Jane Cooley	Administrative Assistant
Joan Davenport	Secretary
Evelyn Elliott	Secretary
Evelyn Harrison	Secretary
Shirley Kaufman	Secretary
Hilda Westmoreland	Secretary

Laboratory Support
Virologist
Microbiologists (2)
Laboratory Technician

The Regional Project Office (RPO) Staff of public health specialists based at Lagos, Nigeria, is responsible for continuing consultation, coordination and direction of the Project.

RPO Staff

George I. Lythcott, M.D.	Medical Officer
Ralph H. Henderson, M.D.	Medical Officer
James Hicks, B.S.	Administrative Officer
Wm. Desprez	Assistant Administrative Officer
Nathaniel Rothstein, M.S.	Virologist
Hillard Davis, M.P.H.	Statistician
Gordon Robbins, M.P.H.	Health Educator
Wm. Shoemaker	Equipment Specialist
Muriel Roy	Secretary

The 30 Medical Officers (M.O.) and Operations Officers (O.O.) working with the individual country programs will provide the requisite continuity of assistance in the development and execution of individual country programs. Of the 15 countries initiating programs in fiscal year 1967, 9 had signed Project Agreements (Pro-Ags) by the end of November. The signing dates of Project Agreements and disposition of field staff, with arrival dates or expected arrival dates, is shown in table 1 on page 3 and is summarized below:

		Pro-Ags	
	Countries	Signed	Not Signed
Status of Pro-Ags:	15	9	6

		Africa		
	TOTAL	Perm. Duty	Temp. Duty	Atlanta
Medical Officers:	11	6	1	4
Operations Officers:	19	12	0	7

B. Training

Since July 5, 1966, the following training programs have been completed or are still in progress.

1. Epidemiology and Biostatistics
   CDC, Atlanta; July 5, 1966 to Aug. 5, 1966
   Participants: 14 Medical Officers
   1 Statistician

2. Introduction to Epidemiology and Biostatistics (including Management Workshop)

   CDC, Atlanta; July 11 to July 23, 1966
   Participants: 19 Operations Officers

3. Automotive Training Course
   Chrysler Training Center, Atlanta

   a. July 6 to July 9, July 25 to August 6, 1966
      Participants: 19 Operations Officers

   b. August 25 to August 29, 1966
      Participants: 11 Medical Officers
      3 Other RPO Staff

Table 1

Disposition of Field Staff
and Status of Project Agreements

Country	Date Pro-Ag Signed	Exp. Date Pro-Ag to be Signed	Officer and Arrival Date M.O.	O.O.
Cameroon	10-15-66		Arlan Rosenbloom*	John McEnaney 10-31-66
C.A.R.	11-15-66		(1)	Neal Ewen 12-8-66
Chad	10-25-66		Bernard Lourie 11-10-66	Russell Charter 11-3-66
Dahomey	11-23-66		Bernard Challenor 12-5-66	Jeannel Roy*
Gabon	10-24-66		(2)	Mark LaPointe 11-4-66
Gambia		?	(3)	(3)
Ghana	11-10-66			Gordon Doran*
Ivory Coast	11-26-66		(4)	Bob Hogan 12-6-66
Mali		?	Pascal Imperato	Jay Friedman
Mauritania		?	(5)	Tom Leonard
Niger		12-5-66	Donald Moore	Tony Masso
Nigeria (Fed. District)	10- 6-66		Stanley Foster 10-19-66	Gerald Flanders 10-21-66
Nigeria (Midwest)			(6)	Warren Jones 10-21-66
Nigeria (East)			David Thompson 10-19-66	Paul Lichfield 10-21-66
			(Dr. William Foege-Consultant)	
Nigeria (West)			Margaret Grigsby 10-23-66	James Lewis 11-14-66
Nigeria (North)			Deane Hutchins 10-15-66	John Greenley 10-21-66
				Vicki Jones 10-19-66
Senegal		?	Thomas Drake	Bob Helmholz
Togo	10-21-66		(7)	Andrew Agle 11-3-66
Upper Volta		?	Chris D'Amanda TDY-12-2-66	Bill White

(1) To be covered by Medical Officer assigned to Chad
(2) To be covered by Medical Officer assigned to Cameroon
(3) To be covered by Medical Officer and Operations Officer assigned to Senegal
(4) To be covered by Medical Officer assigned to Upper Volta
(5) To be covered by Medical Officer assigned to Senegal
(6) To be covered by Medical Officer assigned to Federal District, Nigeria
(7) To be covered by Medical Officer assigned to Dahomey

* Awaiting travel orders.

4. Jet Injector Training Course
CDC, Atlanta

a. Aug. 24-26, 1966
Participants: 19 Operations Officers

b. August 24, 1966
Participants: 14 Medical Officers

5. West African Smallpox Eradication and Measles Control Program Orientation Course (including AID orientation)
CDC, Atlanta; August 8 to August 24, 1966
Participants: Entire Staff

6. French Language Training Course
CDC, Atlanta; July 11 to October 14, 1966
(evenings July 11 to Sept. 2; full time Sept. 5 to Oct. 14)
Participants: 9 Medical Officers
12 Operations Officers
2 Other RPO Staff

7. Hausa Language Training Course
CDC, Atlanta; August 2 to August 28, 1966 (evenings)
Participants: 2 Operations Officers and 1 Medical Officer assigned to Northern Nigeria

8. Field Training

a. DeKalb-Rockdale Counties (Georgia) Measles Vaccination Program
September 9, 1966
Participants: 2 Medical Officers
2 Operations Officers

b. Measles Immunization for Epidemic Control
Snohomish County Health Dept. and Portland, Oregon
November 27 to December 2, 1966
Participants: 3 Medical Officers
5 Operations Officers

c. Jet Injector Evaluation Study
Epidemiology Branch, CDC, Atlanta
November 24 to December 1, 1966
Participants: 1 Operations Officer

II. FIELD ACTIVITIES

1. Office Space - As of December 1, the status of office space in each country is as follows:

a. Provided: Regional Project Office
Dahomey (authorization for renovation requested)
Gabon
Senegal (leased by AID)

b. Status pending:
Cameroon - Government is looking for space.
Chad - Government unable to provide; rental would be $3,500/year. AID/Chad advises construction at cost of $5,000. Requested 11/8/66. Approval pending.

Niger - Government willing to share already crowded facilities. AID/Washington advises acceptance of offered space on interim basis.

c. No indications of status:

CAR
Ghana
Ivory Coast
Mali
Mauritania
Nigeria - all regions
Togo
Upper Volta

2. Operations

a. Headquarters

George Lythcott spent 6 weeks in August-September aiding completion of negotiations for Project Agreements for Nigeria.

Henry M. Gelfand attended OCCGE technical meeting in Abidjan, and visited Senegal and Mauritania in November to discuss Project Agreements.

Chris. D'Amanda attended OCCGE meeting and discussed Project Agreement in Ivory Coast and is presently discussing the Agreement in Upper Volta.

b. RPO

Ralph Henderson has visited Dahomey, Niger, Ivory Coast and Cameroon to discuss Project Agreements and other program problems. He also attended the OCCGE meeting in Abidjan.

c. Country

Cameroon: Campaign was to begin in November with 160,000 doses of measles vaccine, 16 Ped-O-Jets and 6 vehicles previously made available.

CAR : One week training program planned, awaiting arrival of equipment and supplies.

Chad : Dr. Lourie and Mr. Charter on 2-week evaluation field trip of country with counterparts.

Nigeria : Pilot program planned for Lagos by late December pending arrival supplies and equipment. Serious personnel shortages in the federal smallpox laboratory and MOH Statistical Office have resulted from the emigration of many Ibo civil servants to the Eastern Region. RPO statistician actively consulting and advising Nigerian Ministry of Health in collection of smallpox and measles morbidity and mortality data.

III. HOUSING - Of 39 housing units, 31 are assumed to be satisfactory, and the status of the remaining 8 units are pending as of December 1. The status of the housing is summarized below:

1. Satisfactory - 31 units

Regional Project Office:	9 units
Cameroon	: M.O. (lease renewal soon)
Chad	: M.O., O.O.
CAR	: O.O.
Dahomey	: M.O., O.O.

Gabon	: O.O.
Ghana	: O.O.
Ivory Coast	: O.O.
Mauritania	: O.O.
Mali	: M.O., O.O.
Nigeria (Provided by Govt.)	
Midwest	: O.O.
East	: M.O.
Fed. District	: M.O.
North	: M.O., 1 O.O.
West	: O.O.
Senegal	: M.O.
Togo	: O.O.
Upper Volta	: M.O., O.O.

2. Pending - 8 Units

Cameroon	: Lease expiring and USAID approves finding better quarters for O.O.
Niger	: M.O., O.O.; leasing not authorized until ProAg is signed.
Nigeria	
Fed. Distr.	: O.O. no quarters
East	: O.O. temp. quarters by AID
North	: 2nd O.O. no quarters
West	: M.O. no quarters
Senegal	: O.O. no quarters

Kroehler Danish Modern furniture has been ordered for all 39 housing units. Nineteen units were shipped from N.Y. to WACASC-Lagos on August 10, 1966. Remaining units were shipped during the first week of September, including 5 units shipped to Dakar for Senegal, Mauritania and Mali and 15 units to WACASC-Lagos for remaining countries. Appliances for all 39 units were ordered through WACASC and are presumed available for distribution from Lagos.

There are three circumstances that prevail regarding furnishings:

1. Host government is providing furnished housing. This applies only to Nigeria. AID policy requires acceptance of these furnishings, but if they are not up to USAID standards in quality or quantity, substitutions and/or supplementation can be made from program supplies.

2. USAID housing already furnished from local embassy supplies, as in Cameroon and Togo, can be refurnished from program supplies if existing furnishings are not USAID standard or are needed elsewhere by the mission.

3. Unfurnished housing leased by USAID will be adequately furnished from program supplies.

IV. PROCUREMENT

Procurement schedules, by country, are presented in tables 2 and 3 on pages 7 and 9.

Other supplies not shown in the tables include:

A. Office Furniture
   1. Nigeria: furnished by host government
   2. Other countries: Pending delivery to Dakar for Senegal, Mauritania and

Item and ETA Destination	Senegal
A. Measles Vaccine(doses)*	
1. Jan. 1, 1967	120
2. Feb. 1, 1967	150
3. Mar. 1, 1967	150
Total	420
Jet	
B. Smallpox Vaccine(doses)*	
1. Dec. 15, 1966	200
2. Jan. 1967	300
3. Feb. 1967	800
4. Mar. 1967	800
Total	2,100
Mult. Press.	
C. Smallpox Vaccine(doses)*	
1. Dec. 15, 1966	10
2. Jan. 1967	-
3. Feb. 1967	-
4. Mar. 1967	-
Total	10
D. Vehicles -D200	
1. Oct. 1966	6
2. Nov. 1966	
3. Jan. 1967	
Total	

Table 2

Operational Commodities and Supplies
Procurement Schedules by Country
OCCGE and Anglophone Countries
FY 1967

Mauritania	Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	Total
20	130	80	100	65	50	100	-	35	110	810
20	100	90	100	65	50	121	36	35	300	1,067
15	100	90	100	68	40	121	35	30	400	1,149
55	330	260	300	198	140	342	71	100	810	3,026
50	250	150	25	100	200	25	-	50	100	1,150
70	350	250	295	210	100	475	-	120	550	2,720
110	700	550	-	310	300	-	175	170	1,500	4,615
110	700	475	-	270	165	-	161	160	2,000	4,841
340	2,000	1,425	320	890	765	500	336	500	4,150	13,326
10	100	50	400	10	10	300	10	10	-	910
-	-	25	-	35	145	400	-	-	-	605
-	-	-	350	-	-	700	17	-	-	1,067
-	-	-	300	-	-	600	-	-	-	900
10	100	75	1,050	45	155	2,000	27	10	-	3,482
			2							8
				1	5			2	9	17
			2		3			1	66	72
										97

Item and ETA Destination	Senegal
-W200	
1. Nov. 1966	
2. Jan. 1967	2
Total	
E. Jet Injectors	
1. Oct-Nov. 1966	10
2. Jan. 1967	6
Total	
F. Freezers	
1. Jan. 1967	12
2. Mar. 1967	
Total	
G. Field Equipment(units)	
1. Oct-Nov. 1966	8
2. Feb. 1967	
Total	
H. Motorbikes	
Feb. 1967	6

* Vaccine dose in 1000's

Table 2 (continued)

Mauri-tania	Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	Total
2	4	4				2			6	18
3	5	4				2	2		10	28
										46
	14			10				8	31	73
12	19	18	16		15	4	8			98
										171
8	13	9	1			6	4	2		55
									39	39
										94
5	9	8	8	1	8	4	2	3		56
									91	91
										147
	7	12	7	3	11		2	2	64	114

Table 3

Operational Commodities and Supplies
Procurement Schedule by Country
OCEAC Countries
FY 1967

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCEAC Hdq.	Total
A. Measles Vaccine(doses)*						
1. Jan. 1, 1967	-	-	**	20		20
2. Feb. 1, 1967	46	74	-	20		140
3. Mar.15, 1967	45	75	-	15		135
Total	91	149	-	55		295
Jet						
B. Smallpox Vaccine(doses)*						
1. Dec. 15, 1966	300	100	100	50		550
2. Jan. 1967	270	300	60	50		680
3. Feb. 1967	570	400	160	100		1,230
4. Mar. 1967	475	245	126	87		933
Total	1,615	1,045	446	287		3,393
Mult. Press.						
C. Smallpox Vaccine(doses)*						
Dec. 15, 1966	10	10	10	10		40
Jan. 1967	75	45	14	-		134
Total	85	55	24	10		174
D. Vehicles-W500						
Jan. 1967	10			2		12
-W200						
Nov. 1966		4				4
Jan. 1967		6		1		7
Total						11
-D200						
Nov. 1966	2			1		3
-Internationals						
Jan. 1967			4			4
E. Jet Injectors						
Jan. 1967	30	18	11	18	4	81
F. Storage Freezers						
Jan. 1967	8	4	1	8	2	23
G. Freezers						
Jan. 1967	30	20	8	9	1	68

Table 3 (continued)

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCEAC Hdq.	Total
H. Field Equipment						
December 1966		6		1		7
January 1967	1		1			2
Total						9

* Vaccine doses in 1000's

** 93,000 doses measles vaccine purchased FY 1966 PIOC for delivery to CAR was not shipped per decision AID/W. To permit CAR program to start in FY 1967, vaccine will be diverted from supplies destined for Nigeria

Mali and to Lagos for remaining countries through WACASC.

B. Vaccination Certificates
   1. OCEAC countries - 3,963,000 fibre content cards to be available from printer Feb. 1967.
   2. OCCGE countries - Senegal, Mauritania, Niger, Mali and Dahomey have requested cards. They will be available for shipment mid-January or early February 1967.

C. Outboard Motors
   Nigeria 8
   Gabon 2
   Scheduled for delivery January 1967.

V. BUDGET

Pending signing of the PASA, AID/Washington has authorized funds for leasing houses, purchase of office equipment and household appliances and expenses of CDC assignees in Africa.

Reimbursable funds obligated by CDC through November 30 and direct allocations made by AID for housing, local travel, etc. are presented in tables 4 and 5 on pages 12 and 13.

VI. CURRENT SMALLPOX MORBIDITY

According to notifications received by the World Health Organization through November 17, 1966, 6,572 cases of smallpox have been reported from the 19 countries participating in the West Africa Smallpox Eradication/Measles Control Program. This compares with 5,604 cases reported during a comparable time period in 1965, an increase of 17 percent. The numbers of cases reported by country are shown in table 6 on the following page.

In Dahomey, 155 cases have been reported during September and October. Of the 155 cases, 68 were reported from the circumscription of Allada and 58 from the circumscription of Ouidah, both in southern Dahomey. Six deaths were recorded in Ouidah. Three additional cases were reported from Cotonou during the week ending October 9.

In Mali, nine cases of smallpox were reported from the cercle of Tenenhou, Mopti Region, during the week ending November 4. This is the first report of smallpox from this cercle since March when 2 cases were reported.

In Niger, 37 cases, including 5 deaths, have been reported from the cercle of Tera during the 4-week period ending November 7. Tera is in Western Niger, close to the Upper Volta border.

A sharp increase in cases has been reported from Togo. Of 128 cases reported since September 5, 108 were from the circumscription of Nouatja in the Region des Plateaux. Of the 108 cases, 48 were fatal, indicating a high case-fatality rate or additional cases with milder symptoms not reported. An additional 15 cases have been reported from the circumscription of Atakpame, also in the Region des Plateaux in south central Togo.

Table 4

Fiscal Report
Reimbursable Funds Allocated by CDC
through November 30, 1966
(in 000's of dollars)

Headquarters, Regional Program Office, and Country	Personnel Compensation	Personnel Benefits	Travel	Transportation of Things	Rent, Communications and Utilities	Printing and Reproduction	Other Contractual Services	Supplies and Materials	Equipment	TOTAL
Atlanta Headquarters	80.3	6.2	18.1	0.1	1.3	2.6	6.4	5.2	3.5	123.7
Regional Program Office	40.1	2.1	31.1	35.2	-	-	-	0.3	2.1	110.9
Total for 14 Countries	162.1	12.3	98.0	113.4	-	-	-	0.1	-	385.9
TOTAL	282.5	20.6	147.2	148.7	1.3	2.6	6.4	5.6	5.6	620.5
Cameroon	10.6	0.8	7.6	10.7	-	-	-	-	-	29.7
C.A.R.	12.6	0.7	2.0	-	-	-	-	-	-	15.3
Chad	4.1	0.2	7.2	10.1	-	-	-	-	-	21.6
Dahomey	8.7	1.0	4.9	6.0	-	-	-	-	-	20.6
Gabon	2.5	0.2	4.0	4.2	-	-	-	-	-	10.9
Ghana	1.6	0.1	6.0	-	-	-	-	-	-	7.7
Ivory Coast	5.8	0.3	2.5	-	-	-	-	-	-	8.6
Mali	10.0	1.0	3.0	4.0	-	-	-	-	-	18.0
Mauritania	5.0	0.3	4.0	-	-	-	-	-	-	9.3
Niger	10.2	1.1	6.3	7.0	-	-	-	-	-	24.6
Nigeria	64.6	4.3	34.0	56.1	-	-	-	0.1	-	159.1
Senegal	10.5	0.8	5.4	5.2	-	-	-	-	-	21.9
Togo	4.8	0.3	4.1	6.1	-	-	-	-	-	15.3
Upper Volta	11.1	1.2	7.0	4.0	-	-	-	-	-	23.3

Table 5

Direct Allocation by AID for Housing, Local Travel
and Local Operational Expenses
(in 000's of dollars)

Cameroon	15.0
C.A.R.	-
Chad	45.0
Dahomey	15.0
Gabon	8.0
Gambia	-
Ghana	6.0
Guinea	-
I.C.	9.0
Mali	15.0
Mauritania	10.0
Niger	-
Nigeria (RPO)	415.0
Nigeria (4 Regions)	70.0
Senegal	14.5
Togo	5.5
Upper Volta	18.0
TOTAL	742.0

Office furniture and appliances (all countries) 96.0 (Incl. in above total)

Table 6

Reported Smallpox Cases
in 19 West African Countries
1966*

Country	Most Recent Reporting Date in 1966	Cumulative No. of Cases 1966	Cumulative No. of Cases 1965**	Comments - 1966 Incidence
Cameroon	April 30	3(r)	0(r)	2 cases reported from Division Mayo-Danai and one case from Division of Margui-Wandala.
C.A.R.	***	0	0	
Chad	***	0	74(i)	
Congo (B)	April 3	2	63	
Dahomey	Oct. 25	460	162	145 cases reported from Circumscription of Allada, 59 from Circumscription of Ouidah and 52 from Circumscription of Aplahoue.
Gabon	***	0	1	
Gambia	March 15	3	1	3 cases from Upper River, Division.
Ghana	June 10	12(i,r)	6	
Guinea	Aug. 13	5	51	Telimélé Region removed from the infected area list during week ending November 3.
Ivory Coast	***	0	8	
Liberia	***	0	49	
Mali	Nov. 4	279	545	78 cases reported from Cercle of San, 72 from Cercle of Nioro, and 55 from Cercle of Dire.
Mauritania	Aug. 11	****	0	Smallpox reported present in Cercle of Hodh Occidental as of August 11.
Niger	Nov. 7	882	385	168 cases reported from Cercle of Niamey, 149 from Cercle of Tillabery and 132 from Cercle of Dosso.
Nigeria	Oct. 8	4569	4180	Provinces / No. of Cases: Northern 4052; Western 297; Mid-Western 115; Lagos (City) 91; Eastern 14
Senegal	***	0	0	
Sierra Leone	Sept. 24	123(i)	56	86 cases reported from Eastern Province.
Togo	Oct. 23	167	10	128 cases reported since Sept. 5, including 108 cases and 48 deaths from Circumscription of Nouatja.
Upper Volta	Aug. 17	67	13	Cercle of Dori removed from infected area list week ending November 17.
	Total	6572	5604	

* Reports received by WHO through Nov. 17, 1966
** Comparable time period in 1965
*** No cases reported to WHO through Nov. 17, 1966
**** See comments - 1966 incidence
(i) Includes imported cases
(r) Revised

VII. SURVEILLANCE REPORTS

Four surveillance reports concerning the West Africa Smallpox/Eradication Measles Control Program have been issued by the Smallpox Eradication Program, Communicable Disease Center. Each report includes a summary of current smallpox morbidity patterns in the countries involved in the program. Additional epidemiologic observations are included.

In addition, a special report on smallpox and yellow fever cases, deaths, and vaccinations for the years, 1940-1965, was included in Surveillance Report No. 3. Surveillance Report No. 4 included a special demographic report including current population figures, population projections, and vital statistics.

Surveillance Report No. 5 is in preparation and will include special reports on measles morbidity and vaccinations since 1960 and also recently published data on the leprosy problem in West and West-Central Africa.

J. D. Millar, MD

J. D. Millar, M.D.

DISTRIBUTION

Chief, CDC
Executive Officer, CDC
Chief, OIH, DHEW, Washington, D.C.
Professional Personnel, Smallpox Eradication Program
Dr. A. C. Curtis, AID, Washington, D.C.

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December 16, 1966

TO : Chief, Communicable Disease Center

FROM : Chief, Smallpox Eradication Program

SUBJECT: Status Report #2

This report will revise, update and amplify the first status report, dated December 7, 1966. Subsequent reports will be submitted as indicated by program developments.

I. PERSONNEL

A. Current Status

Since the previous report, the governments of Mali, Mauritania and Niger have signed Project Agreements. Revised Table 1 on page 2 includes these changes and the new summary is as follows:

		Pro-Ags	
	Countries	Signed	Not Signed
Status of Pro-Ags:	15	12	3

		Africa		
	Total	Perm. Duty	Temp. Duty	Atlanta
Medical Officers:	11	8	2	1
Operations Officers:	19	16	0	3

B. Training

Statewide Immunization Program
Pennsylvania Health Dept. - Harrisburg
Dec. 12, 1966 to March 1, 1967
1 Operations Officer

Table 1

Disposition of Field Staff
and Status of Project Agreements

Country	Date Pro-Ag Signed	Officer and Arrival Date M.O.		O.O.	
Cameroon	10-15-66	Arlan Rosenbloom*		John McEnaney	10-31-66
C.A.R.	11-15-66	(1)		Neal Ewen	12- 8-66
Chad	10-25-66	Bernard Lourie	11-10-66	Russell Charter	11- 3-66
Dahomey	11-23-66	Bernard Challenor	12- 5-66	Jeannel Roy	12-20-66**
Gabon	10-24-66	(2)		Mark LaPointe	11- 4-66
Gambia		(3)		(3)	
Ghana	11-10-66			Gordan Doran*	
Ivory Coast	11-26-66	(4)		Bob Hogan	12- 6-66
Mali	12- 6-66	Pascal Imperato	12-29-66	Jay Friedman	12-30-66**
Mauritania	12- 5-66	(5)		Tom Leonard	1- 4-67
Niger	12-13-66	Donald Moore	1- 7-67**	Tony Masso	1- 7-67**
Nigeria	10- 6-66				
Fed. Distr.		Stanley Foster	10-19-66	Gerald Flanders	10-21-66
Midwest		(6)		Warren Jones	10-21-66
East		David Thompson	10-19-66	Paul Lichfield	10-21-66
		(Dr. William Foege-Consultant)			
West		Margaret Grigsby	10-23-66	James Lewis	11-14-66
North		Deane Hutchins	10-15-66	John Greenley	10-21-66
				Vicki Jones	10-19-66
Senegal		Thomas Drake	TDY-12-21-66	Bob Helmholz	
Togo	10-21-66	(7)		Andrew Agle	11- 3-66
Upper Volta		Chris. D'Amanda	TDY-12- 2-66	Bill White	

(1) To be covered by Medical Officer assigned to Chad
(2) To be covered by Medical Officer assigned to Cameroon
(3) To be covered by Medical Officer and Operations Officer assigned to Senegal
(4) To be covered by Medical Officer assigned to Upper Volta
(5) To be covered by Medical Officer assigned to Senegal
(6) To be covered by Medical Officer assigned to Federal District, Nigeria
(7) To be covered by Medical Officer assigned to Dahomey

* Awaiting travel orders.
** Tentative

II. FIELD ACTIVITIES

A. Headquarters

Dr. Ronald Roberto discussed with the American Hospital Association committee on the control of hospital infections on November 7, 1966 in Chicago the 1966 variola minor outbreak in England.

A suspected case of smallpox was investigated by Dr. Roberto on November 8, 1966 in Summit, New Jersey and proven not to be smallpox.

Dr. Donald Millar addressed the Pan American Health Organization/World Health Organization in Washington, D.C. on November 10, 1966 on problems in mass vaccination.

Dr. Henry Gelfand led a seminar discussion on the current worldwide status of smallpox and the W. African eradication program at Tulane University, New Orleans on Friday, December 9.

B. Country

Nigeria: One-hundred-thousand doses of smallpox vaccine were airshipped to Lagos on December 9, 1966 for use in controlling a reported epidemic in Eastern Nigeria.

A pilot program of 100,000 smallpox and 20,000 measles immunizations is being planned for the Eastern region. It appears that adequate personnel and facilities exist for an early start. In other regions, financial, personnel and procedural problems are under discussion between SEP staff and counterparts.

Chad : Dr. Lourie and Mr. Charter and their counterparts have completed an evaluation tour and are impressed with the efficiency of the Service des Grandes Endemies. Program commencement awaits additional supplies and equipment.

III. HOUSING

Further information regarding the status of housing in Nigeria is summarized below:

Total units - 19
Satisfactory - 16
Pending - 3

Fed. District - O.O. in temporary quarters
North - 2nd O.O. in temporary quarters
West - M.O. in AID quarters

IV. PROCUREMENT

The following revisions will be found in Tables 2 and 3.

Measles Vaccine:

Between December 15, 1966 and January 1, 1967 the initial air shipments of measles vaccine will be made. Allocations to Senegal and Nigeria have been adjusted to provide C.A.R. with vaccine and to allow an earlier allotment to Cameroon.

Smallpox Vaccine (jet injection):

As noted under Field Activities, 100,000 doses have been sent to Nigeria from supplies remaining from the FY 66 order. The rest of this supply (1.6 million doses) is proposed to be sent to RPO-Lagos for optimal distribution, rather than to individual countries as shown in Report #1.

Smallpox Vaccine (multiple pressure):

This material is now scheduled for direct shipment to Niger, Ivory Coast, Togo, Dahomey, Upper Volta and the OCEAC countries beginning in January 1967.

Other Supplies:

Errors have been corrected in the tabulation of vehicle distribution to Ivory Coast, Upper Volta and Gabon, in the distribution of jet injectors to Mali and Nigeria and in the freezer allotment to Nigeria.

Table 2

Operational Commodities and Supplies
Procurement Schedules by Country
OCCGE and Anglophone Countries
FY 1967

Item and ETA Destination	Senegal	Mauri-tania	Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	TOTAL
A. Measles Vaccine(doses)*												
1. Jan. 1, 1967	80	20	130	80	100	65	50	100	-	35	80	740
2. Feb. 1, 1967	150	20	100	90	100	65	50	121	36	35	270	1,037
3. Mar. 1, 1967	190	15	100	90	100	68	40	121	35	30	370	1,159
Total	420	55	330	260	300	198	140	342	71	100	720	2,936
Jet B. Smallpox Vaccine(doses)*												
1. Jan. 1967 FRB 1	500	120	600	400	320	310	300	500	-	170	550	3,770
2. Feb. 1967	800	110	700	550	-	310	300	-	175	170	1,500	4,615
3. Mar. 1967	800	110	700	475	-	270	165	-	161	160	2,000	4,841
Total	2,100	340	2,000	1,425	320	890	765	500	336	500	4,050	13,226
Mult. Press. C. Smallpox Vaccine(doses)*												
1. Jan. 1967 FRB-1	-	-	-	75	350	45	85	700	-	-	-	1,255
2. Feb. 1967	-	-	-	-	350	-	-	700	17	-	-	1,067
3. Mar. 1967	-	-	-	-	300	-	-	600	-	-	-	900
Total	-	-	-	75	1000	45	85	2,000	17	-	-	3,222
D. Vehicles - D200												
1. Oct. 1966	6				2							8
2. Nov. 1966						1	5	2		2	9	19
3. Jan. 1967					6		3			1	66	76
Total												103

Item and ETA Destination	Senegal	Mauri-tania
-W200		
1. Nov. 1966		2
2. Jan. 1967	2	3
Total		
E. Jet Injectors		
1. Oct-Nov. 1966	10	
2. Jan. 1967	6	12
3. Feb. 1967		
4. Mar. 1967		
Total		
F. Freezers		
1. Jan. 1967	12	8
2. Feb. 1967		
Total		
G. Field Equipment(units)		
1. Nov. 1966	8	5
2. Jan. 1967		
Total		
H. Motorbikes		
Feb. 1967	6	

* Vaccine dose in 1000's

Table 2 (continued)

Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	TOTAL
4	4							6	16
5	4				2	2		10	28
									44
7			10				8	31	66
19	18	16		15	4	8		40	98
								200	200
								95	95
									459
13	9	1			6	4	2		55
								59	59
									114
9	8	8	1	8	4	2	3		56
								91	91
									147
7	12	7	3	11		2	2	64	114

Table 3

Operational Commodities and Supplies
Procurement Schedule by Country
OCEAC Countries
FY 1967

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCEAC Hdq.	Total
A. Measles Vaccine(doses)*						
1. Jan. 1, 1967	46	-	30	20		96
2. Feb. 1, 1967	45	74	30	20		169
3. Mar. 15, 1967	-	75	30	15		120
Total	91	149	90	55		385
B. Jet Smallpox Vaccine(doses)*						
1. Jan. 1967	570	400	160	100		1,230
2. Feb. 1967	570	400	160	100		1,230
3. Mar. 1967	475	245	126	87		933
Total	1,615	1,045	446	287		3,393
C. Mult. Press. Smallpox Vaccine(doses)*						
Dec. 15, 1966	10	10	10	10		40
Jan. 1967	75	45	14	-		134
Total	85	55	24	10		174
D. Vehicles-W500						
Jan. 1967	10			2		12
-W200						
Dec. 1966		4				4
Jan. 1967		6		1		7
Total						11
-D200						
Nov. 1966	2					2
Dec. 1966				1		1
Total						3
-Internationals						
Jan. 1967			4			4
E. Jet Injectors						
Jan. 1967	30	18	11	18	4	81
F. Storage Freezers						
Jan. 1967	8	4	1	8	2	23
G. Freezers						
Jan. 1967	30	20	8	9	1	68

Table 3 (continued)

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCEAC Hdq.	Total
H. Field Equipment						
Dec. 1966		6		1		7
Jan. 1967	1		1			2
Total						9

* Vaccine doses in 1000's

V. BUDGET

In Table 5, the direct allocation by AID for local cost figures have been revised for Chad and Ivory Coast and the new total is $738,000.

Table 5

Direct Allocation by AID for Housing, Local Travel and Local Operational Expenses (in 000's of dollars)

Cameroon	15.0
C.A.R.	-
Chad	40.0
Dahomey	15.0
Gabon	8.0
Gambia	-
Ghana	6.0
Guinea	-
Ivory Coast	10.0
Mali	15.0
Mauritania	10.0
Niger	-
Nigeria (RPO)	415.0
Nigeria (4 Regions)	70.0
Senegal	14.5
Togo	5.5
Upper Volta	18.0
TOTAL	738.0

Office furniture and appliances (all countries 96.0 (Incl. in above total)

VI. CURRENT SMALLPOX MORBIDITY

Current data are included in the Surveillance Report No. 5.

VII. SURVEILLANCE REPORT NUMBER 5

Measles incidence and vaccination data concerning the West Africa operations area are presented in the Report. Also included are reports of leprosy in the program area and a revised demographic report.

J. D. Muller

DISTRIBUTION

Professional Personnel, Smallpox Eradication Program
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Executive Officer, CDC
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Dr. Hans J. Mayer, Intercountry SP Advisor, Monrovia, Liberia
Dr. A. D. Langmuir, Epidemiology Br., CDC
Mr. G. Fordyce, AAPC, New York, N.Y.

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January 18, 1967

TO : Director, National Communicable Disease Center

FROM : Chief, Smallpox Eradication Program

SUBJECT: Status Report #3

Status Report No. 1 (December 7, 1966) described the mission of the Smallpox Eradication Program (SEP). As noted, the West African Smallpox Eradication and Measles Control Program is a joint endeavor of the Agency for International Development and the United States Public Health Service. Financing of this program is provided by the Office of Regional Activities of the Bureau of Africa of the Agency for International Development (AID). Program responsibility within AID is vested in the Office of Institutional Development of the same bureau; day-to-day operational contact between SEP and AID is maintained through the Public Health Division of that office. The pertinent administrative structure is outlined below.

Agency for International Development (AID) - Administrator - William S. Gaud
Bureau for Africa - Assistant Administrator - Edmond C. Hutchinson
Office of Regional Activities - Director - Allan Loren
Office of Institutional Development - Director - Robert L. Rupard
Public Health Division - Chief - Arthur C. Curtis, M.D.

The detailed basis for collaboration between USPHS and AID in carrying out the West African Smallpox Eradication and Measles Control Program will be specifically defined in the Participating Agency Service Agreement (PASA) between the two agencies which is now being reviewed. Until this document is signed by both agencies, guidelines for relationships between the field staffs of the two agencies are provided in the "General Agreement Between the Department of Health, Education and Welfare and the Agency for International Development" of March 3, 1966. Section VII of the document, entitled "Operating Relationships," is reproduced in its entirety below:

"A. In the United States - General, technical and project services provided in the United States will be carried out by the Department in accordance with its established procedures.

B. Overseas

1. Department personnel assigned overseas as members of an AID Mission under this Agreement will receive support, benefits and privileges on the same terms as they are provided to AID direct-hire personnel and as permitted under legal and AID regulatory requirements.

2. Unless mutually agreed otherwise, the Department will utilize personnel on its rolls insofar as possible in providing services under this Agreement.

3. Personnel of the Department detailed or assigned for duty overseas with AID under this Agreement will be administratively responsible to the

USAID Director or his designee on matters of personal conduct, public relations and general program and policy direction. Disciplinary action, if called for, must be taken by the Department. It is the responsibility of AID to notify the Department promptly of developments which might require such action.

4. With respect to project services, official communications on technical, professional and personnel matters may be direct or through AID channels at the option of the Department, provided that copies of communications sent directly will be simultaneously provided to AID mission and AID/ Washington headquarters. Official communications dealing with AID program and policy matters will be transmitted through regular AID channels. With respect to staff services, all communications except personnel matters are through AID channels.

5. Problems that arise in the operation of service agreements will be resolved between the USAID Director or his designee and the Department's senior officer at the mission. In the absence of a mutually satisfactory solution the USAID Director may, if he deems it necessary, direct that his views be followed pending decision on the matter in Washington."

I. PERSONNEL

A. Headquarters Staff

1. Leo Morris, Assistant Chief of the Smallpox Eradication Program since its inception, will join the staff of the Pan American Health Organization (PAHO) February 6, 1967. As an advisor to the National Campaign Against Smallpox in Brazil, Leo takes on the first PHS assignment made to the new Regional PAHO Program to eliminate smallpox from the Americas. After a brief orientation in Washington, the Morrises will be assigned to Rio de Janeiro.

   While principally concerned with the development of surveillance and statistical aspects of the Pan American Health Organization effort, Leo is expected to advise on logistical and administrative matters as well. A staff of medical officers and statisticians is presently being recruited by PAHO to implement this program which will coordinate activities in eight countries with a total population of 150 million persons. Over half of this population resides in Brazil which is the major smallpox focus in the hemisphere.

   Leo served as Assistant Chief to D.A. Henderson in the Surveillance Section of Epidemiology Branch. He participated in a number of short-term overseas assignments that included epidemic investigations of polio in Puerto Rico (1960) and Chile (1961); dengue fever in Puerto Rico (1963) and studies of smallpox vaccination by jet injection in Amapa, Brazil (1965). In 1960, Morris received a NCDC Award for superior performance in directing the Polio Surveillance Unit. Leo transferred to the Smallpox Eradication Program when it was created in January 1966. He recently conducted an evaluation in Nigeria of the jet injector training manual now being used in the West African Program and he developed and taught the course in Epidemiology and Biostatistics given to the operations officers in the program.

   Donald Eddins of Statistics Section, Epidemiology Program, NCDC, will join the Smallpox Eradication Program later in the month to assume the responsibilities for directing the statistical activities of the Program.

2. William DesPrez has joined the headquarters staff of the Smallpox Eradication Program as Supply Officer. In this capacity Bill will have primary responsibilities for procurement coordination.

3. New Recruit!!! - Born to Claire and Bill White; a baby girl 8 lbs. 3-1/4 oz. at 1:32 p.m. January 14, 1967. Mother, baby, and presumably father, are doing well and are anxious to get to Africa.

B. Field Staff

There have been no changes from the previous report. All officers except the M.O. Cameroon and O.O.'s Ghana, Senegal and Upper Volta are on duty in Africa. Negotiations continue for signing of agreements with Senegal, Upper Volta and Gambia.

II. FIELD ACTIVITIES

A. Headquarters Activities

1. Dr. Henry Gelfand spent January 12-13 at Carrville, Louisiana consulting on Epidemiology with the staff of the U.S. Public Health Service Hospital, Carrville. On January 11, he conducted recruiting interviews in New Orleans.

2. Dr. Ron Roberto was guest speaker at a January 10 Seminar on Smallpox and Smallpox Eradication, held in the Department of Preventive Medicine, University of Washington School of Medicine, Seattle. In addition he interviewed a number of SEP candidates in Seattle, San Francisco, and Los Angeles, January 9-13.

B. Regional Project Office Activities

1. The Government of Ghana plans to publicize smallpox eradication and measles control activities at an international trade fair to be held in Accra during the early part of February. A demonstration vaccination booth, where smallpox and measles vaccines will be administered by jet injection, is planned for the fair. The Regional Project Office has been asked to assist in the preparation and operation of this demonstration activity.

2. The OCEAC has invited SEP Headquarters, Regional Project Office, NCDC field staff and AID representatives (in OCEAC countries) to participate in an OCEAC technical meeting to be held January 30-February 3 in Yaounde, Cameroon. At this meeting the regional smallpox eradication and measles control activity will be discussed. NCDC participants will include the Chief, Smallpox Eradication Program and the Program Management Officer (from headquarters), the Director, Regional Project Office and other members of his staff, as well as NCDC field technicians and AID Affairs Officers from C.A.R., Chad, Gabon and Cameroon.

C. Country Activities

1. Cameroon: The measles campaign is continuing with vaccine from previous allotments which is expected to be consumed in January 1967. The West Cameroon smallpox and measles program, involving 1.2 million persons, is to start early in 1967.

2. Gabon: Mark LaPointe has visited the regional directors of the Grandes Endemies Service discussing the considerable problems presented by the sparse population and limited transportation facilities.

3. Ghana: See RPO Activities (Section IIB this Report).

4. Mauritania: The program for FY 1967 will be primarily concerned with the Hodh Oriental region. This area contains nearly 20 percent of the population of Mauritania. Two teams (possibly three) will vaccinate the 160,000 people of this region against smallpox and provide measles immunization to the estimated 25,000 children aged 1-6 years.

5. Nigeria: Pilot projects will be started in all regions and in the Federal District during late January and early February. No additional information has been received regarding the previously reported smallpox outbreak in the Eastern Region.

6. Upper Volta: Dr. Christopher D'Amanda is participating in an investigation of an outbreak of smallpox in the Dori region of northeastern Upper Volta (See Smallpox Morbidity below). Epidemic control activities are underway including mass vaccination. An assessment study is planned eight days following the completion of the Grandes Endemies Service mass campaign in the region.

D. Current Smallpox Morbidity (Table 1)

According to notifications received by the World Health Organization through December 15, 1966, 6,838 cases of smallpox have been reported from the 19 countries participating in the West Africa Smallpox Eradication/Measles Control Program. This compares with 5,783 cases reported during a comparable time period in 1965, an increase of 18 percent. The numbers of cases reported by country are shown in the table on the following page.

Upper Volta reported a December outbreak of at least 7 cases with one fatality in the northeast area of the country (Cercle of Dori) close to the border with Niger. The infirmier in Sebba (Cercle of Dori) performed 271 vaccinations and the Chief of the Grandes Endemies operation in the Cercle of Dori planned a mass campaign beginning December 27. Dr. Christopher D'Amanda, on temporary duty in Upper Volta, is participating in the campaign.

III. HOUSING

The following changes have been reported:

Nigeria: M.O. quarters in Western district have been leased by AID.
Niger: Housing has been obtained for the M.O. and O.O.

IV. PROCUREMENT

A. Measles Vaccine

A total of three shipments of measles vaccine was originally planned for fiscal year 1967. One shipment has already been distributed according to the figures in Tables 2 and 3.

The remaining fiscal year 1967 measles vaccine order will be in two shipments, one in late January and another in late February. This will complete the distribution of measles vaccine for fiscal year 1967 according to present plans.

A production lag resulted in reduction of the amount of vaccine shipped to Senegal in January. A number of cables have been received requesting further alterations in the procurement schedule for February.

A summary of requested alterations as of this date appears in Table 4. In order to accommodate these requested changes and to assure sufficient supplies of vaccine for all countries, the following steps were taken.

1. The current shipment was altered to accommodate all requested increases and will be delivered as shown in Table 2 and 3.

2. The vaccine allotment for Nigeria was reduced sufficiently to compensate for the requested increases.

3. No other reductions were made in the February schedule.

The projected March shipment was altered to permit reconciling the changes mentioned above with the total amount of vaccine specified in the various ProAgs with one exception. The Nigerian vaccine total was reduced to provide 55,000 doses for Cameroon and 90,000 doses for CAR which were not originally included in the ProAg totals. In the event that the ProAg totals are not adequate for estimated usage during fiscal year 1967 and the first quarter of fiscal year 1968, the RPO should be so advised to permit adequate planning to meet these needs.

B. Smallpox Vaccine

The 1.6 million doses remaining from fiscal year 1966 orders were shipped to the RPO on December 31, 1966. The allocation of this shipment by the RPO has not yet been reported. A number of cables have requested changes in the projected distribution of smallpox vaccine as it appears in Tables 2 and 3.

The January shipment of smallpox vaccine (jet and multiple pressure) will proceed as indicated in Tables 2 and 3. Requested scheduling changes will be made in subsequent shipments when the distribution of the 1.6 million doses referred to above is known and when estimates of overall needs for fiscal year 1967 and the first quarter of fiscal year 1968 have been received.

C. Jet Injectors

Completed units should be ready for shipment at the rate of 100 per week beginning the first week in February. Delay has been due to labor problems of the subcontractor supplying gunstocks.

D. Vehicles

The 35 left-hand drive D-200 and W-200 Dodge trucks remaining undelivered will be aboard the African Grove sailing January 24 and should arrive according to the following schedule:

February 2 - Dakar - 3 W-200 for Mauritania
2 D-200 for Gambia
2 W-200 for Senegal
5 W-200 for Mali

February 12 - Abidjan - 6 D-200 for Ivory Coast
2 W-200 for Upper Volta

February 15 - Accra - 1 D-200 for Ghana

February 18 - Lagos - 6 W-200 for Chad
3 D-200 for Dahomey
1 W-200 for Gabon
4 W-200 for Niger

Predelivery service has been performed on these trucks. Hereafter this will be done at destination in Africa as requested.

Three of the four International trucks for C.A.R. have been sent to subcontractor for installation of top racks and carrier boxes and should be ready for shipment soon.

J. D. Millar, M.D.

DISTRIBUTION

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Dr. D. A. Henderson, WHO, Geneva, Switzerland
Dr. Hans J. Mayer, Intercountry SP Advisor, Monrovia, Liberia
Dr. A. D. Langmuir, Epidemiology Br., NCDC
Mr. G. Fordyce, AAPC, New York, N.Y.

Table 1

Reported Smallpox Cases
in 19 West African Countries
1966*

Country	Most Recent Reporting Date in 1966	Cumulative No. of Cases 1966	Cumulative No. of Cases 1965**	Comments - 1966 Incidence
Cameroon	April 30	3(r)	0(r)	2 cases reported from Division of Mayo-Danai and one case from Division of Margui-Wandala.
C.A.R.	***	0	0	
Chad	***	0	74(i)	
Congo(B)	April 3	2	63	
Dahomey	Nov. 29	467	163	145 cases reported from Circumscription of Allada, 58 from Circumscription of Ouidah and 52 from Circumscription of Aplahoue.
Gabon	***	0	1	
Gambia	March 15	3	1	3 cases from Upper River Division.
Ghana	June 10	12(i,r)	6	
Guinea	Nov. 26	15	52	9 cases reported from Kindia Region in week ending November 26.
Ivory Coast	***	0	8	
Liberia	***	0	49	
Mali	Nov. 4	279	545	78 cases reported from Cercle of San, 72 from Cercle of Nioro, and 55 from Cercle of Dire.
Mauritania	Aug. 11	****	0	Smallpox reported present in Cercle of Hodh Occidental as of August 11.
Niger	Dec. 8	923	431	168 cases reported from Cercle of Niamey, 149 from Cercle of Tillabery, 132 from Cercle of Dosso and 108 from Cercle of Tera.
Nigeria	Nov. 19	4701	4310	Provinces / No. of Cases: Northern 4161; Western 314; Mid-Western 121; Lagos(City) 91; Eastern 14
Senegal	***	0	0	
Sierra Leone	Oct. 22	162(i)	57	106 cases reported from Eastern Province.
Togo	Dec. 4	197	10	157 cases reported from Circumscription of Nouatja. Of these, 132 cases have been reported since Sept. 5.
Upper Volta	Dec. 22	74	13	Cercle of Dori reported 7 cases, including one death. Three further cases reported directly to NCDC by Dr. D'Amanda.
	Total	6838	5783	

* Reports received by WHO through Dec. 15, 1966
** Comparable time period in 1965
*** No cases reported to WHO through Dec. 15, 1966
**** See comments - 1966 incidence
(i) Includes imported cases
(r) Revised

Table 2

Operational Commodities and Supplies
Procurement Schedules by Country
OCCGE and Anglophone Countries
FY 1967

Item and ETA Destination	Senegal	Mauri-tania	Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	Total
A. Measles Vaccine(doses)*												
1. Jan. 1, 1967 (shipped)	33	20	130	80	100	65	50	100	-	35	80	693
2. Feb. 1, 1967	150	25	118	90	100	65	50	121	36	35	177	967
3. Mar. 1, 1967	237	10	82	90	100	68	40	121	35	30	408	1,221
Total	420	55	330	260	300	198	140	342	71	100	665	2,881
B. Jet Smallpox Vaccine(doses)*												
1. By Jan. 31, 1967	500	120	600	400	320	310	300	500	-	170	550	3,770
2. " Feb. 28, 1967	800	110	700	550	-	310	300	-	175	170	1,500	4,615
3. " Mar. 31, 1967	800	110	700	475	-	270	165	-	161	160	2,000	4,841
Total	2,100	340	2,000	1,425	320	890	765	500	336	500	4,050	13,226
C. Mult. Press. Smallpox Vaccine(doses)*												
1. By Jan. 1967	-	-	-	75	350	45	85	700	-	-	-	1,255
2. " Feb. 1967	-	-	-	-	350	-	-	700	17	-	-	1,067
3. " Mar. 1967	-	-	-	-	300	-	-	600	-	-	-	900
Total	-	-	-	75	1,000	45	85	2,000	17	-	-	3,222
D. Vehicles - D200												
1. Oct. 1966(delivered	6				2							8
2. Nov. 1966 (shipped)						1	5	2		2	9	19
3. Jan. 24, 1967					6		3			1		10
4. Feb. 1967											66	66
Total												103

Item and ETA Destination	Senegal	Mauritania
-W200		
1. Nov. 1966(shipped)		2
2. Jan. 1967	2	3
Total		
E. Jet Injectors		
1. Oct-Nov. 1966	10	
2. Jan. 1967	6	12
3. Feb. 1967		
4. Mar. 1967		
Total		
F. Freezers		
1. Jan. 1967	12	8
2. Feb. 1967		
3. Mar. 1967		
Total		
G. Field Equipment(Units)		
1. Nov. 1966(shipped)	8	5
2. Jan. 1967		
Total		
H. Motorbikes		
Feb. 1967	6	

* Vaccine dose in 1000's

Table 2 (continued)

Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	Total
4	4							6	16
5	4				2	2		10	28
									44
7			10				8	31	66
19	18	16		15	4	8		40	98
								200	200
								95	95
									459
13	9	1			6	4	2		55
								15	15
								44	44
									114
9	8	8	1	8	4	2	3	15	71
								76	76
									147
7	12	7	3	11		2	2	64	114

Table 3

Operational Commodities and Supplies
Procurement Schedule by Country
OCEAC Countries
FY 1967

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCEAC Hdq.	Total
A. Measles Vaccine(doses)*						
1. Jan. 1, 1967	46	-	30	20		96
2. Feb. 1, 1967	100	74	45	20		239
3. Mar. 15, 1967	-	75	15	15		105
Total	146	149	90	55		440
B. Jet Smallpox Vaccine(doses)*						
1. Jan. 1967	570	400	160	100		1,230
2. Feb. 1967	570	400	160	100		1,230
3. Mar. 1967	475	245	126	87		933
Total	1,615	1,045	446	287		3,393
C. Mult. Press. Smallpox Vaccine(doses)*						
Jan. 1967	85	55	24	10		174
D. Vehicles-W500						
Feb. 1967	10			2		12
-W200						
Dec. 1966		4				4
Jan. 1967		6		1		7
Total						11
-D200						
Nov. 1966	2					2
Dec. 1966				1		1
Total						3
-Internationals						
Feb. 1967			4			4
E. Jet Injectors						
Jan. 1967	30	18	11	18	4	81
F. Storage Freezers						
Jan. 1967	8	4	1	8	2	23

Table 3 (continued)

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCEAC Hdq.	Total
G. Freezers						
Jan. 1967	30	20	8	9	1	68
H. Field Equipment						
Dec. 1966		6		1		7
Jan. 1967	1		1			2
Total						9

* Vaccine doses in 1000's

Table 4

Requested Allotments of Measles Vaccine*
February 1967

	Info. Rec'd	Est. Needs	Diff. from Status R#2
Senegal	No	150	0
Mauritania	Yes	25	+5
Mali	Yes	118	+18
Niger	No	90	0
Ivory Coast	Yes	100	0
Togo	Yes	30	-35
Dahomey	Yes	50	0
Upper Volta	No	121	0
Gambia	No	36	0
Ghana	No	35	0
Cameroon	Yes	100	+55
Chad	Yes	32	-42
Gabon	No	20	0
Nigeria	Yes	45	-225
C.A.R.	No	45	+15
TOTAL		997	-209

* Vaccine doses in 1000's

DHEW, PHS, BDPEC, CDC

For Administrative Use Only
Not for Publication

March 27, 1967

TO : Director, National Communicable Disease Center

FROM : Chief, Smallpox Eradication Program

SUBJECT: Status Report #4

PROCUREMENT

A. Measles Vaccine:

All of the measles vaccine ordered for FY 67 has been allocated as shown on Tables 1 and 2. There are 199,000 doses uncommitted.

B. Smallpox Vaccine:

Tables 1 and 2 reflect the total distribution for FY 67. The uncommitted balance of 2,819,000 doses of jet and 17,000 doses of MP vaccine will be used during the first part of FY 68.

C. Anticipated Needs: (Four month period - not quarterly)

Table No. 3 represents the best info available to Lagos and Atlanta regarding needs. Any necessary changes, with projected figures, should be made as soon as possible and sent to the Regional Project Office for evaluation, consolidation and forwarding to NCDC. This is necessary for NCDC to anticipate and order vaccines and related supplies sufficiently in advance to avoid the manufacturing delays and excuses which have plagued the field personnel during FY 67. NCDC hopes to have your supply available July 1, however, this is contingent upon your prompt replies.

D. Jet Injectors:

By the time this is published the Ped-O-Jet shipments will have been completed to all countries except Nigeria. A balance of 245 remains in Nigeria, scheduled for completion of delivery on or about March 29.

Watch for 75 rejected cylinder assemblies which may have been erroneously installed in the Ped-O-Jets. Advise RPO of any faulty cylinders.

E. Diluent:

The air shipments of diluent were at JFK - February 20 to be manifested aboard aircraft as quickly as space could be obtained. Diluent traveling by surface should arrive at destinations approximately 30 days after receipt of the air portion.

Distribution is shown on Tables 1 and 2. In addition 9,800 vials were sent to Nigeria for use in FY 68.

F. Motor Bikes:

The motor bikes are now involved in a multiplicity of correspondence. Unless we are able to cut some red tape and shipping time - it looks like it will be sometime in April before the first bike sees Africa. We hope to reduce this time appreciably.

G. C-80 Refrigerators:

Six C-80 refrigerators ordered on PO-1046 for Ivory Coast are scheduled to be shipped February 15, 1967 along with the balance of the units being furnished against order 876.

H. Vehicles Pending:

Gabon	-	1-W-200	ETD 3/10
Chad	-	1-W-200	ETD 2/24
Dahomey	-	1-D-200	ETD 3/10
Niger	-	1-W-200	ETD 2/24
Ghana	-	1-D-200	ETD 3/10
Cameroon	-	5-W-500	3 ETD 2/24
			2 ETD 3/10
Nigeria	-	10-W-200*	
Nigeria	-	66-D-200*	

*Nigeria Vehicles: Starting March 5 vehicles will roll off the production line at the rate of nine (9) per day until the order is completed. The time span required for shipside delivery involves 28 days.

a. Quality control and check out at Chrysler - 7 days
b. Delivery time to Phoenix Mfg. - 7 days
c. From the time of receipt of the chassis to completion of vehicle at Phoenix -14 days
d. Delivery from Phoenix to the pier - 4 hours

Following this time table, which was quoted by Chrysler Corp. - through AAPC, we have been promised that there will be 36 units aboard the SS African Lightning departing NYC - April 7, 1967, for arrival at Lagos/APAP April 30, 1967.

The balance of 41 to be shipped on the SS African Crescent arriving Lagos/APAP May 31, 1967.

AAPC has coordinated this with the freight forwarder, "LEP Transport," and advised us that there will be no delays at the pier.

I. Commodities Delivered Improperly:

NCDC has been exerting every pressure that we can bring to bear on the Procurement Agents, Contractors and Shippers in trying to expedite deliveries to West Africa.

Now we need some specifics from the field - strictly on a time available basis without interference in normal routine. We would like to know of:

1-Any shipments arriving without proper documents.
2-Demurrage charges.
3-Delays in receipt of supplies which is felt to be caused by a "Stateside" error.
4-Any Air Shipment where an informative cable was not sent, or was not received, far enough in advance.

5-Shortages which cannot directly be contributed to pilferage.
6-Malfunctioning equipment which may be attributed to poor manufacturing.
7-Damages or loss of material, which may be caused by poor packing and crating.
8-Any other delays, inconveniences or monetary loss due to the above.

In order to obtain reimbursement from those at fault it is necessary to give Bill of Lading or Airway bill numbers, box numbers, purchase orders, carriers, serial numbers and any other identifying marking by which we can "pinpoint" specific consignments when filing claims. Guidelines are set forth in AIDTO Circular XA-1685.

MORBIDITY AND MORTALITY, FIELD ACTIVITIES ETC.

A large amount of information on activities relating to all aspects of the program has been forwarded to Atlanta from the Regional Project Office. More is arriving daily as the field reporting system becomes more and more current and effective.

Rather than delay this "hardware" report pending complete receipt of the first surveillance period (January 1967) data, available information will be collected, collated and presented in a subsequent surveillance report.

J. D. Millar, M.D.

DISTRIBUTION

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Table 1

Operational Commodities and Supplies
Procurement Schedules by Country
OCCGE and Anglophone Countries
FY 1967

Item and ETA Destination	Senegal	Mauri-tania	Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	Total
A. Measles Vaccine (doses)*												
1. Jan. 1, 1967 (shipped)	33	20	130	80	100	65	50	100	-	35	35	648
2. Feb. 1, 1967 (shipped)	150	25	118	90	100	-	-	-	36	-	177	696
3. Feb. 15, 1967 (shipped)	-	-	-	-	-	65	50	121	-	35	-	271
4. Apr. 1, 1967	0	10	102	0	100	68	40	-	35	30	588	973
Total	183	55	350	170	300	198	140	221	71	100	800	2,588
B. Jet Smallpox Vaccine (doses)*												
1. By Jan. 31, 1967 (shipped)	500	150	600	400	300	300	300	500	-	200	550	3,800
2. By Feb. 28, 1967 (shipped)	800	100	350	550	-	300	300	-	200	150	1,500	4,250
3. By Mar. 31, 1967	-	50	0	500	-	300	-	-	150	150	2,000	3,150
Total	1,300	300	950	1,450	300	900	600	500	350	500	4,050	11,200
C. RPO Jet Spox Stock	-	50	-	60	50	-	-	-	-	50	-	210
D. Mult. Press. Smallpox Vaccine (doses)*												
1. By Jan. 31, 1967 (shipped)	-	-	-	75	350	45	85	700	-	-	-	1,255
2. By Feb. 28, 1967 (shipped)	-	-	-	-	-	-	-	700	-	-	-	700
3. By Mar. 31, 1967	-	-	-	-	150	-	-	600	-	-	-	750
4. By June 1, 1967	-	-	-	-	250	-	-	-	-	-	-	250
5. By Aug. 1, 1967	-	-	-	-	250	-	-	-	-	-	-	250
Total	-	-	-	75	1,000	45	85	2,000	-	-	-	3,205

Table

Item and ETA Destination	Senegal	Mauritania
E. Jet Injectors		
1. Jan. 20, 1967 (shipped)	10	-
2. Feb. 8, 1967 (shipped)	-	6
3. Feb. 15, 1967 (shipped)	-	-
4. Feb. 28, 1967 (shipped)	-	6
5. Mar. 3, 1967 (shipped)	5	-
6. Mar. 15, 1967	1	-
7. Mar. 24, 1967	-	-
8. Mar. 29, 1967	-	-
Total	16	12
F. Iodine (25 cc vials)		
1. Feb. 26, 1967 (air shipped)	1,000	1,000
G. Vaccination Certificates (1000's)		
1. Feb. 5, 1967 (air shipped)	75	17
Shipped by Boat	1,425	323
Total	1,500	340
H. Diluent: (50 cc vials)		
Packed with one needle per 2 vials:		
1. Feb. 24, 1967 (air shipped)	700	200
2. Mar. 20, 1967 (shipped)	4,500	1,000
3. Apr. 8, 1967 - Reserve	-	-
Total	5,200	1,200
I. C-80 Refrigerators		
1. Jan. 1967 (shipped	12	8
2. Feb. 1967 (shipped)	-	-
3. Mar. 1967 (shipped)	-	-
Total	12	8

1 (continued)

Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	Total
7	-	-	10	-	-	-	8	31	66
4	6	8	-	4	-	-	-	90	118
15	-	-	-	-	4	-	-	-	19
-	12	4	-	4	-	8	-	-	34
-	-	4	-	7	-	-	-	-	16
-	-	-	-	-	-	-	-	99	100
-	-	-	-	-	-	-	-	100	100
-	-	-	-	-	-	-	-	46	46
26	18	16	10	15	4	8	8	366	499
1,500	1,500	1,000	1,000	1,000	500	500	500	14,500	25,000
							RPO	1,000	
281	100	-	93	150	-	-	-	-	716
844	400	-	842	450	-	-	-	-	4,284
1,125	500	-	935	600	-	-	-	-	5,000
800	800	700	600	600	1,000	0	400	1,100	6,900
5,200	5,000	500	3,000	1,800	1,000	1,400	1,600	15,900	40,900
-	-	-	-	-	-	-	-	9,800	9,800
6,000	5,800	1,200	3,600	2,400	2,000	1,400	2,000	26,800	57,600
								? 27,500	
13	9	1	0	0	6	4	2	15	70
-	-	6	-	-	-	-	-	-	6
-	-	-	-	-	-	-	-	44	44
13	9	7	0	0	6	4	2	59	120

Table 1 (continued)

Item and ETA Destination	Senegal	Mauri-tania	Mali	Niger	Ivory Coast	Togo	Dahomey	Upper Volta	Gambia	Ghana	Nigeria	Total
J. Field (Camping) Equipment												
1. - - 1966 (shipped)	7	5	9	8	8	1	8	4	2	3	0	55
2. Mar. 21, 1967 (shipped)	-	-	-	-	-	-	-	-	-	-	91	91
Total	7	5	9	8	8	1	8	4	2	3	91	146
K. Truck Equipment												
1. - - 1966 (shipped)	8	5	9	8	8	1	8	4	2	3	0	56
2. Apr. 22, 1967	-	-	-	-	-	-	-	-	-	-	91	91
Total	8	5	9	8	8	1	8	4	2	3	91	147
L. Vehicles - D-200												
1. - 1966 (shipped)	6	0	0	0	2	1	5	2	0	2	9	27
2. Jan. 1967 (shipped)	-	-	-	-	-	-	-	-	-	-	-	0
3. Feb. 1967 (shipped)	-	-	-	-	-	-	2	-	-	-	-	2
4. Mar. 1967 (shipped)	-	-	-	-	6	-	1	-	-	1	-	8
5. Apr. 1967	-	-	-	-	-	-	-	-	-	-	66	66
Total	6	0	0	0	8	1	8	2	0	3	75	103
M. Vehicles - W-200												
1. - 1966 (shipped)	-	2	4	4	0	0	0	-	-	0	6	16
2. Jan. 1967 (shipped)	-	-	-	-	-	-	-	-	-	-	-	0
3. Feb. 1967 (shipped)	2	3	5	3	-	-	-	2	2	-	-	17
4. Mar. 1967 (shipped)	-	-	-	1	-	-	-	-	-	-	-	1
5. Apr. 1967	-	-	-	-	-	-	-	-	-	-	10	10
Total	2	5	9	8	0	0	0	2	2	0	16	44
N. Cotton - 50#												
1. Apr. 1967	8	5	9	8	8	5	8	4	2	3	90	150

* Vaccine doses in 1000's

Table 2

Operational Commodities and Supplies
Procurement Schedule by Country
OCEAC Countries
FY 1967

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCEAC Hdq.	Total
A. Measles Vaccine (doses)*						
1. Jan. 1, 1967 (shipped)	46	30	45	20		141
2. Feb. 1, 1967 (shipped)	-	74	-	-		74
3. Feb. 15, 1967 (shipped)	100	-	45	20		165
4. Apr. 1, 1967	94	45	-	15		154
Total	240	149	90	55		534
Jet						
B. Smallpox Vaccine (doses)*						
1. Jan. 31, 1967 (shipped)	550	400	200	100		1,250
2. Feb. 28, 1967 (shipped)	-	400	300	100		800
3. Mar. 31, 1967	150	300	-	100		550
Total	700	1,100	500	300		2,600
Mult. Press.						
C. Smallpox Vaccine (doses)*						
1. Feb. 18, 1967 (shipped)	130	10	24	10		174
D. Jet Injectors						
1. Jan. 20, 1967 (shipped)	-	-	-	10		10
2. Feb. 8, 1967 (shipped)	10	6	11	-		27
3. Feb. 15, 1967 (shipped)	20	12	-	-		32
4. Feb. 28, 1967 (shipped)	-	4	-	5		9
5. Mar. 3, 1967 (shipped)	-	-	-	3		3
Total	30	22	11	18		81
E. Iodine (25 cc vials)						
1. Feb. 26, 1967(Air)(shipped)	1,500	1,500	1,000	1,000		5,000
F. Vaccination Certificates						
1. Feb. 5, 1967 (Air)(shipped)	340	224	70	44		678
2. Mar. 15, 1967 (Boat)(shipped)	1,360	1,272	400	253		3,285
Total	1,700	1,496	470	297		3,963
G. Diluent (50cc vials) Packed with one needle per 2 vials						
1. Feb. 24, 1967 (Air)(shipped)	700	800	300	200		2,000
2. Mar. 20, 1967 (Surface)(shipped)	2,100	3,600	1,700	1,000		8,400
Total	2,800	4,400	2,000	1,200		10,400
H. C-80 Refrigerators						
1. Jan. 1967 (shipped)	31	20	8	9		68

Table 2 (continued)

Item and ETA Destination	Cameroon	Chad	C.A.R.	Gabon	OCRAC Hdq.	Total
I. Field (Camping) Equipment						
1. - 1966 (shipped)	1	6	1	1		9
J. Truck Equipment						
1. - 1966 (shipped)	2**	6	0	1		9
	** One belongs to CAR					
K. Vehicles - D-200						
1. - 1966 (shipped)	2	0	0	1		3
L. Vehicles - W-200						
1. - 1966 (shipped)	0	4	0	0		4
2. Feb. 1967 (shipped)	-	5	-	-		5
3. Mar. 1967 (shipped)	-	1	-	-		1
4. Apr. 1967 (shipped)	-	-	-	1		1
Total	0	10	0	1		11
M. Vechicles - W-500						
1. Feb. 1967 (shipped)	5	-	-	-		5
2. Mar. 1967 (shipped)	3	-	-	2		5
3. Apr. 1967	2	-	-	-		2
Total	10	0	0	2		12
N. Vehicles - International						
1. Feb. 1967 (shipped) (1 Station Wagon - 3 trucks)	-	-	4	-		4
O. Cotton 50#						
1. Apr. 1967	12	10	4	4		30

* Vaccine doses in 1000's

Table 3

Anticipated Needs July - Oct. 1967 (4 months)

	Measles	Spox JIG	Spox MP
1. Cameroon	87	350	500
2. Chad	80	480	-
3. C.A.R.	25	-	-
4. Gabon	-	-	-
5. Togo	-	-	-
6. Dahomey	-	-	-
7. Gambia	-	-	-
8. Senegal	-	-	-
9. Mauritania	-	-	-
10. Niger	-	-	-
11. Ivory Coast	-	-	500
12. Mali	-	-	-
13. Upper Volta	-	-	-
14. Ghana	160	800	-
15. Nigeria	2,000	12,000	-
Total	2,362	13,630	1,000

An Introduction to Africa - The Hard Way!

SEP/MC Nouakchott
January 30, 1967

Memo

TO : RPO SEP/MC Lagos Nigeria
Attention: Bill Shoemaker

INFO : SEP/MC Dakar, Senegal

INFO : Headquarters SEP/MC CDC Atlanta, Georgia

SUBJECT: Truck and Spare Parts Transfer Choum to Nouakchott

Departed Nouakchott for Choum via Atar at 4:00 AM 1/25/67
Arrived Choum at 5:30 PM

Trucks at Choum

Status: Ser 2261-674509 OK except for broken right front headlight damaged in shipment from U.S. to Port Etienne.

Ser 2261-674771 Bendix broken while being placed on train for trip between Port Etienne and Choum (teeth chewed off - shaft split - dropping into pan). Push or pull truck to start.

No spare parts in Choum as arranged. Necessitated overnight stay for arrival on Thursday MIFERMA service train.

UNICEF Landrover bringing us to Choum had to depart taking only tool kit.

Spare parts arrived but 3 tons instead of 1 ton as seen in Port Etienne. Looks as if MOPAR tool kits stolen.

Electric light cord and railroad's rope used to tie down spare tires and tubes as well as lighter cases we were able to carry.

Arrived Atar and departed the next day 1/27/67 without problems.

100K's Southwest of Atar Ser. 2261-674771 lost carburator linkage and main pulley on engine ventilating system. This due to terrible pounding on washboard surfaced road. (Ridges 4 inches apart and 2 inches high with a rocky surface).

Decision to tow disabled truck to Nouakchott. (To abandon means that vehicle and what it carries will be stripped)

No tow cable. Used rope in doubled form. Wrapped surface of bumper in newspapers to reduce cutting.

Cable snapped several times. Once hobbled camels refused to move out of road. Managed to get both trucks stopped without hitting animals. However, cable snapped badly. Trucks too close together after this mishap, which caused second truck to lose headlights due to rocks tossed by rear wheels of first Dodge.

Stopped at Akjoujt to get jerry can and hose to get gas from rear Dodge into first. (Mileage for two before difficulty was 14 miled per gallon. Even with strain of load first vehicle maintained 8 miles per gallon). Borrowed iron tow cable from National Police.

At 2:30 AM first truck straddled a large truck tire rim in the middle of the road. Second truck did not. Right front tire and rim blown and damaged.

Trip between Atar and Nouakchott normally takes 7 hours. This one lasted twenty-five.

This road is considered by everyone to be the BEST ROAD in Mauritania.

Trucks now in LaCombe, Inc., Nouakchott for inspection and repair.

One thing is critically clear - - all nuts, bolts, and screws must be tightened often. First Dodge had bolts loosened on main gear housing, instrument panel, body attachments to chassis, and spring shackles.

Forecast: Few experienced professional drivers believe Warren Hubs will last. Average driver will probably damage unit forgetting to connect or disconnect both front wheels. Most Mauritania drivers are below average.

Almost no hope for rear axle system. Considered much too fragile for road conditions in this country.

Maintenance and inspection facilities available in Nouakchott. Situation in remote areas virtually hopeless. Lucky to be able to find gas.

Our spare parts inventory will be of absolute importance.

/s/ Thomas A. Leonard

PROFESSIONAL STAFF

SMALLPOX ERADICATION PROGRAM

August 10, 1966

AGLE, Andrew N.
b. Salt Lake City, Utah, 1937

Judith Jean Spinks
Dawn Diane 1961
David Richard 1963

B.A., San Jose State College, 1963

Operations Officer, Smallpox Eradication Program, Togo, 1966-
Public Health Advisor (VD), Sacramento County Health Department, 1964-1966
Program Representative (VD), San Jose City Health Department, 1963-1964

CHALLENOR, Bernard D.
b. New York, New York, 1936

A.B., Hunter College, 1957
M.D., State University of New York, Downstate Medical Center, 1961
M.P.H., Harvard School of Public Health, 1963

Medical Epidemiologist, Smallpox Eradication Program, Dahomey-Togo, 1966-
EIS Officer, Smallpox Unit, Epidemiology Branch, 1965-1966
Peace Corps Physician, 1963-1965
Intern, Long Island College Hospital, 1961-1962

CHARTER, Russell Stanley
b. Grand Haven, Michigan, 1940

Sharon Kay Anders

B.A., University of Michigan, 1963

Operations Officer, Smallpox Eradication Program, Chad, 1966-
Public Health Advisor (VD), New York, New York, 1964-1966
Public Health Advisor (VD), Rocky Mount, North Carolina, 1964
Program Representative (VD), Rocky Mount, North Carolina, 1963-1964
Program Representative (VD), Chicago, Illinois, 1963

D'AMANDA, Christopher
b. Rochester, New York, 1934

A.B., Harvard College, 1956
M.D., University of Buffalo, 1962

Medical Epidemiologist, Smallpox Eradication Program, Upper Volta-Ivory Coast, 1966-
Chief Resident in Medicine, Buffalo General Hospital, 1965-1966
Resident (Internal Medicine), Buffalo General Hospital, 1963-1965
Intern, Buffalo General Hospital, Buffalo, New York, 1962-1963

DAVIS, Hillard
b. Cleveland, Ohio, 1934

Brenda N.
Micheal C. 1961

B.S., Central Ohio State, 1960
M.P.H., University of Michigan, 1964

Statistician, Smallpox Eradication Program, Regional Project Office, Lagos, Nigeria, 1966-
Statistician (Health), Analysis Reports and Publications Division, Department of the Army, 1966
Special Assistant to the Director, Medical Statistic Agency, Army Surgeon General's Office, Department of the Army, Washington, D.C., 1964-1966
Statistics Trainee, Development and Proof Services, Analytical Laboratory, Aberdeen Proving Grounds, Maryland, 1960-1962

DESPREZ, William L.
b. Akron, Ohio, 1920

Helen Marie Koegle
Rita Loraine 1950
Janet Louise 1959

Medical Technician School, Ft. Sam Houston, Texas, 1939
Laboratory Technician School, Ft. Sam Houston, Texas, 1939
Air Force Management Training Program, Pentagon, 1952

Assistant Administrative Officer, Smallpox Eradication Program, Regional Project Office, Lagos, Nigeria, 1966-
Principal Procurement Officer, Supply Branch, NASA, Washington, D.C., 1964-1966
Assistant General Services Officer, USAID, Monrovia, Liberia, 1962-1964
Administrative Assistant to Chief, Supply Branch, NASA, Washington, D.C., 1959-1962
Section Head, Service and Maintenance, Bureau of Aeronautics, Department of the Navy, Washington, D.C., 1958-1959
Assistant Head, Mail and File Branch, Bureau of Aeronautics, Department of the Navy, Washington, D.C., 1957-1958
Assistant Administrative Officer, Aeronautical Standards Group, Department of Air Force, Washington, D.C., 1951-1957
Chief, Technical Service Library and Technical Supply Unit, Veterans Administration, Washington, D.C., 1946-1951
Clerk, Department of State and Foreign Economic Administration, 1943-1946
U.S. Army, 1943

DORAN, H. Gordon, Jr.
b. Kimball, Minnesota, 1919

Gloria Taylor
Douglas Taylor 1951
Walter Gordon 1953
Clifton Stokes 1954
Mary Lucy 1958
Shelby 1961

University of Texas, 1936-1938
North Texas State, 1939-1940
B.S., Texas A and M, 1949
D.V.M., Texas A and M, 1951
M.P.H., University of North Carolina, 1958

Operations Officer, Smallpox Eradication Program, Ghana, 1966-
Director, Division of Comparative Medicine, New Mexico Department of Public Health, 1962-1966
Private Practice of Veterinary Medicine, 1960-1962
Veterinarian, Fort Worth City Health Department, 1958-1960
State Public Health Veterinarian, Virginia, 1957-1958
Private Practice of Veterinary Medicine, 1951-1957
U.S. Army, 1941-1945

DRAKE, Thomas E.
b. Chicago, Illinois, 1937

Sylvia P.

A.B., Oberlin College, 1959
M.D., Western Reserve University, 1963

Medical Epidemiologist, Smallpox Eradication Program, Senegal-Gambia-Mauritania, 1966-
Regional Medical Officer for Africa, Medical Program Division, Peace Corps, 1965-1966
Peace Corps Staff Physician, Tehran, Iran, 1964-1965
Rotating Internship, USPHS Hospital, San Francisco, California, 1963-1964
USPHS Research Fellowships in Microbial Genetics, Western Reserve and Stanford Universities, 1960-1962

EWEN, Neal H.
b. Woonsocket, Rhode Island, 1938

B.A., University of Rhode Island, 1960

Operations Officer, Smallpox Eradication Program, Central African Republic, 1966-
Public Health Advisor (VD), Albany, New York, August 1965-June 1966
Public Health Advisor, Atlanta, Georgia, July 1964-July 1965
Program Representative (VD), Utica, New York, December 1963-June 1964
Program Representative (VD), Syracuse, New York, March 1963-December 1963

FLANDERS, Gerald P.
b. Monroe, Michigan, 1938

Bonnie Jane
Deirdre Lee 1961

B.A., Albion College, 1963

Operations Officer, Smallpox Eradication Program, Nigera (Lagos), 1966-
Public Health Advisor (VD), Detroit, Michigan and Columbus, Ohio, 1964-1966
Program Representative (VD), Detroit, Michigan, 1963-1964
Elementary Teacher, Albion, Michigan, 1961-1963
Elementary Teacher, Germfask, Michigan, 1959-1960

FOEGE, William H.
b. Decorah, Iowa, 1936

Paula
David

B.A., Pacific Lutheran University, 1957
M.D., University of Washington, 1961
M.P.H., Harvard University, 1965

Consultant, Smallpox Eradication Program, Nigeria (East), 1966-
Community Health Physician, Nigerian Lutheran Church, Immanuel Medical Center, Bansara, Eastern Nigeria, 1965-
EIS Officer, Colorado State Health Department, 1962-1964
Intern, USPHS Hospital, Staten Island, New York, 1961-1962

FOSTER, Stanley O.
b. Melrose, Massachusetts, 1933

Dorothy
William 1960
Andrew 1961
Paul 1965

A.B., Williams College, 1955
M.D., University of Rochester, 1960

Medical Epidemiologist, Smallpox Eradication Program, Nigeria (Lagos), 1966-
National Tuberculosis Association Teaching Fellow in Chest Diseases, Research Fellow in Medicine, University of California Hospitals, San Francisco, California, 1965-1966
Resident (Internal Medicine), University of Rochester Medical Center, 1964-1965
EIS Officer, PHS, CDC, assigned to the PHS Indian Hospital, Phoenix, Arizona, 1962-1964
Resident (Internal Medicine), University of Rochester Medical Center, 1961-1962
Intern (Medicine-Pediatrics), University of Rochester Medical Center, 1960-1961
USPHS Fellow in Physiology, University of Rochester School of Medicine, 1957-1958

FRIEDMAN, Jay S.
b. New York, New York, 1940

B.S., Florida State University, 1961
M.A., American University, 1966

Operations Officer, Smallpox Eradication Program, Niger, 1966-
Peace Corps Volunteer, (Teaching and Community Development), Sierra Leone, 1962-1964

GELFAND, Henry M.
b. New York, New York, 1920

Jane Banker	
Richard Ernest	1948
Alaric Michael	1949
Christopher Wilhelm	1953
Wendy Mae	1954

B.S., Cornell University, 1940
M.D., University of Chicago, 1950
M.P.H., Tulane University, 1956

Chief, West African Operations, Smallpox Eradication Program, CDC, Atlanta, 1965-
Epidemiology Consultant to the National Institute of Communicable Diseases, New Delhi, India, 1963-1965
Chief, Enterovirus Unit, Virology Section, Laboratory Branch, CDC, 1959-1963
Associate Professor of Epidemiology, Tulane University, School of Medicine, New Orleans, Louisiana, 1953-1959
Medical Entomologist, PHS Research Project, Liberian Institute, N.I.H. Laboratory of Tropical Diseases, Harbel, Liberia, 1951-1953
Intern, PHS Hospital, Staten Island, New York, 1950-1951

GREENLEY, John W.
b. Bronx, New York, 1924

Louise W.	
John W.	1952
James C.	1955
Kathryn L.	1960

B.S., University of Miami, 1951
M.P.H., University of North Carolina, 1954
Graduate Work, University of Minnesota, 1959

Operations Officer, Smallpox Eradication Program, Nigeria (North), 1966-
Assistant to the Chief, Southeastern Radiological Health Laboratory, Montgomery, Alabama, 1963- 1966
Senior PHS Officer for Project Dribble, Hattiesburg, Mississippi, 1963
Assistant Chief for Administration, Southeastern Radiological Health Laboratory, 1962-1963
U.S. Sanitation Consultant (I.C.A.), Indonesia, 1959-1962
U.S. Sanitation Consultant (I.C.A.), to the S.C.I.S.P., Bolivia, 1957-1959
Sanitarian, Dade County Health Department, Florida, 1954-1957
Sanitarian, St. Luce and Okeechobee County Health Department, Florida, 1951-1953

GRIGGS, Billy G.
b. Ripley, Tennessee, 1933

Mary Sue
Bill, Jr. 1953
Suellen 1954
Kathryn Ann 1957

B.S., Memphis State University, 1956

Program Management Officer, Smallpox Eradication Program, CDC, Atlanta, 1966-
Chief, Operations and Development Unit, VD Branch, 1964-1965
Assistant Chief, Operations and Development Unit, VD Branch, 1962-1964
Coordinator-Executive Secretary, Program Committee, World Forum on Syphilis and other Treponematoses, 1961-1962
City Representative (VD), Houston, Texas, 1960-1961
Coordinator, Bracero Serology Program, Mexican Border, 1959-1960
Coordinator, Bracero Serology Program, El Paso and Nogales Centers, 1958-1959
City Representative (VD), Memphis, Tennessee, 1957-1958
Public Health Analyst (VD), Memphis, Tennessee, 1956-1957
Co-operative Employee (VD), Memphis, Tennessee, 1956

GRIGSBY, Margaret E.
b. Prairie View, Texas, 1923

B.S., Prairie View College, 1943
M.D., University of Michigan, 1948
D.T.M.H., London School of Hygiene and Tropical Medicine, 1963
F.A.C.P., London School of Hygiene and Tropical Medicine, 1963

Medical Epidemiologist, Smallpox Eradication Program, Nigeria (West), 1966-
Professor of Medicine, Howard University, 1966-
Assoc. Professor of Medicine, Howard University, and Senior Attending Physician, Freedman's Hospital, 1960-1966
Chief of Infectious Diseases Section, Department of Internal Medicine, Howard University, 1952-1966
Attending Physician (1958-1964), Consultant (1964-), Mt. Alto Veteran's Administration Hospital
Assistant Professor of Medicine, Howard University and Attending Physician, Freedman's Hospital, 1957-1960
Lecturer, School of Social Work, Howard University, 1955-1959
Instructor in Medicine, Howard University and Assistant Physician, Freedman's Hospital, 1952-1957
Research Fellow in Medicine, Harvard Medical School, Thorndike Memorial Laboratory, Boston City Hospital, 1951-1952
Resident (Internal Medicine), Freedman's Hospital, 1950-1951
Resident (Internal Medicine), Homer G. Phillips Hospital, 1949-1950
Intern, Homer G. Phillips Hospital, St. Louis, Missouri, 1948-1949

HELMHOLZ, Robert C.
b. Milwaukee, Wisconsin, 1940

Romona
Melissa E. 1960
Steven W. 1962
Karl W. 1963

B.A., University of Santa Clara, 1962

Operations Officer, Smallpox Eradication Program, Senegal, 1966-
Public Health Advisor (VD), Atlanta, Georgia, 1964-1966
Public Health Advisor (VD), Los Angeles, California, 1963-1964
Co-Operative Trainee (VD), San Jose City Health Department, 1962-1963
Co-Operative Trainee (VD), San Francisco City and County Health Department, 1962

HENDERSON, Donald A.
b. Cleveland, Ohio, 1928

Nana B.
Leigh 1954
David 1956
Douglas 1960

A.B., Oberlin College, 1950
M.D., University of Rochester, 1954
M.P.H., Johns Hopkins University, 1960

Chief, Smallpox Eradication Program, CDC, Atlanta, 1966-
Chief, Surveillance Section, Epidemiology Branch, 1961-1965
Chief, Epidemic Intelligence Service and Assistant Chief, Epidemiology Branch, 1960-1961
Resident (Medicine and Pathology), Mary Imogene Bassett Hospital, 1957-1959
Chief, Epidemic Intelligence Service and Assistant to the Chief, Epidemiology Branch, 1956-1957
Assistant Chief, Epidemic Intelligence Service, 1955-1956
Intern, Mary Imogene Bassett Hospital, 1954-1955

HENDERSON, Ralph H.
b. New York, New York, 1937

Ilze

A.B., Harvard University, 1959
M.D., Harvard University, 1963

West African Program Deputy Director, Smallpox Eradication Program, 1966-
EIS Officer, Smallpox Unit, Surveillance Section, 1965-1966
Resident (Internal Medicine), Boston City Hospital, 1964-1965
Intern, Boston City Hospital, 1963-1964

HENDRICKS, Fay B.
b. Sandersville, Georgia, 1936

Robert W.
Karen 1963

Perry Business College

Administrative Assistant, Smallpox Eradication Program, CDC, Atlanta, 1966-
Staff Assistant, VD Branch, 1962-1966
Travel Clerk, VD Branch, 1957-1962
Clerk Typist, U.S. Marine Corps Supply Center, Albany, Georgia, 1954-1959

HICKS, James W.
b. Jacksonville, Florida, 1930

Dorothy Madeline Flynn
James Brown 1964
Stewart Flynn 1965

B.A., University of Florida, 1957
B.S., University of Florida, 1957

Administrative Officer, Smallpox Eradication Program, Regional Project Office, Lagos, Nigeria, 1966-
Chief, Venereal Disease Control Section, North Carolina State Board of Health, 1963-1966
Public Health Advisor (VD), Philadelphia, Pennsylvania, 1960-1963
Public Health Advisor (VD), Hillsborough County Health Department, Tampa, Florida, 1957-1960
Co-operative Employee (VD), Florida State Board of Health, Jacksonville, Florida, 1957

HOGAN, Robert C.
b. Portland, Oregon, 1936

Mary Melissa
David Clayton 1960
Kevin Charles 1961
Christopher James 1963

B.A., Princeton University, 1959

Operations Officer, Smallpox Eradication Program, Ivory Coast, 1966-
Public Health Advisor (VD), Atlanta, Georgia, 1964-1966
Public Health Advisor (VD), Berkeley, California, 1963-1964
Public Health Advisor (VD), San Jose, California, 1962-1963
Program Representative (VD), San Francisco, California, 1961-1962
Teaching Assistant, University of California, Berkeley, California, 1960-1961

HUTCHINS, Deane L.
b. Kingfield, Maine, 1924

Virginia Ruby Bradstreet
Martha Jean 1952
Sally Ann 1954
Nancy Lynn 1955
Rebecca Jane 1958

A.B., University of Maine, 1950
M.D., University of Rochester, 1954

Medical Epidemiologist, Smallpox Eradication Program, Nigeria (North), 1966-
Director, Clinical Services, University of Maine Infirmary, Orono, Maine, 1961-1966
Private Practice, Boothbay Harbor, Maine, 1956-1961
Resident, Worcester (Massachusetts) City Hospital, 1955-1956
Intern, Worcester City Hospital, 1954-1955

IMPERATO, Pascal James
b. New York, New York, 1937

B.S., St. John's University, 1958
M.D., State University of New York, Downstate Medical Center, 1962
M.P.H.& T.M., Tulane University, 1966

Medical Epidemiologist, Smallpox Eradication Program, Mali, 1966-
Glorney-Raisbeck Fellow of the New York Academy of Medicine in the Division of Hygiene and Tropical Medicine, Tulane University School of Medicine, 1965
Research Fellow, International Center for Medical Research and Training, Tulane University-Universidad de Valle, Colombia, South America, 1965 (3 months)
Visiting Instructor, Dept. of Medical Technology, New York City Community College, 1963-1965
Resident, Tropical Disease Clinic, Long Island College Hospital, New York, 1963-1965
Resident (Internal Medicine), Long Island College Hospital, New York, 1963-1965
Intern, Long Island College Hospital, New York, 1962-1963
Foreign Fellow, Association of American Medical Colleges, Kenya, Tanzania and Uganda, 1961 (6 months)
Research Fellow, Health Research Council of the City of New York, Department of Microbiology and Immunology, State University of New York, Downstate Medical Center, Summer, 1960

JONES, Clara Juanita (Vicki)
b. Memphis, Tennessee, 1935

Baylor University, 1953
Memphis State University, 1954-1956
Certificate, Hospital Administration, Georgia State University, 1959
B.B.A., Georgia State University, 1965

Operations Officer, Smallpox Eradication Program, Nigeria (North), 1966-
Epidemiological Assistant, Hepatitis Surveillance Unit, Epidemiology Branch, 1963-1966
Morbidity Records Field Agent, Epidemic Investigation Branch, Georgia Department of Public Health, 1961-1963
Administrative Resident, Kennestone Hospital, Marietta, Georgia, 1959-1960
Surgical Technician, St. Joseph Infirmary, Atlanta, Georgia, 1958-1959
OB Technician, St. Joseph Hospital, Memphis, Tennessee, 1953

JONES, Warren R.
b. Salt Lake City, Utah, 1937

Rebecca Lunt
Brian Hamilton 1965

B.S., Brigham Young University, 1962
M.S., Brigham Young University, 1964

Operations Officer, Smallpox Eradication Program, Nigeria (Midwest), 1966-
Interviewing School Instructor, Atlanta, Georgia, 1965-1966
Program Representative (VD), Seattle and Yakima, Washington, 1964-1965

LAPOINTE, Mark David
b. Brunswick, Maine, 1941

Diane Marie McAvoy

A.B., Assumption College, 1963

Operations Officer, Smallpox Eradication Program, Gabon, 1966-
Teacher (English and French), Mechanic Falls High School, Mechanic Falls, Maine, 1965-1966
Peace Corps Volunteer, Guinea (Teaching and Ag. Ext.), 1963-1965

LEONARD, Thomas A.
b. Springfield, Massachusetts, 1936

Mary Michael Maginnis
Paul Thomas 1963
Mark Christopher 1964

B.A., Marquette University, 1962

Operations Officer, Smallpox Eradication Program, Mauritania, 1966-
Senior Public Health Advisor (VD), Connecticut State Department of Health, 1965-1966
Public Health Representative (VD), New York City Department of Health, 1963-1965
Cooperative Employee (VD), New York City Department of Health, 1962-1963
U.S. Air Force, Saudi Arabia and Germany, 1955-1957

LEWIS, James O.
b. Fayetteville, North Carolina, 1932

Betsy Henry

A.B., University of North Carolina, 1957

Operations Officer, Smallpox Eradication Program, Nigeria (West), 1966-
Supervisory Public Health Advisor (VD), Minneapolis, Minnesota, 1965
Public Health Advisor (VD), New Orleans, Louisiana, 1963-1964
Cooperative Employee (VD), Charlotte, North Carolina, 1962
Sales Representative - North Carolina and Florida, 1957-1961
U.S. Army, Orleans, France, 1954-1956

LOURIE, Bernard
b. Paris, France, 1936

Ann Maxcy		
	David	1961
	John	1963
	Michael	1966

A.B., Cornell University, 1958
M.D., New York Medical College, 1962
M.P.H., Johns Hopkins School of Hygiene, 1966

Medical Epidemiologist, Smallpox Eradication Program, Chad-Central African Republic, 1966-
Community Health Director, Winslow Service Unit, Division of Indian Health, USPHS, 1964-1965
Intern, USPHS Hospital, Staten Island, New York, 1963

LICHFIELD, Paul R.
b. Murry, Utah, 1938

Mary Lynn Buckmiller		
	Michael Paul	1963

Assoc. of Science, Weber State College, 1958
B.S., Brigham Young University, 1963

Operations Officer, Smallpox Eradication Program, Nigeria (East), 1966-
Supervisory Public Health Advisor (VD), New Orleans, Louisiana, October 1965-June 1966
Public Health Advisor (VD), Pendleton, Oregon, 1964-1965

LYLE, Mary Anne
b. Atlanta, Georgia, 1932

Drury L.		
	James M.	1948

Statistical Assistant, Smallpox Eradication Program, CDC, Atlanta, 1966-
Statistical Assistant, Office of the Chief, Surveillance Section, Epidemiology Branch, 1963-1965

LYTHCOTT, George I.
b. New York, New York, 1918

Jean
Ruth 1945
George, III 1947
Michael 1948
Stephen 1950

B.S., Bates College, 1939
M.D., Boston University, 1943

West African Program Director, Smallpox Eradication Program, Regional Project Office, Lagos, Nigeria, 1966-
Director, NIH-West African Research Laboratory, Ghana, September 1965-June 1966
Director, Pediatric Chest Clinic, Korle-Bu Hospital, Accra, Ghana, 1962-1966
Deputy Director and Chief, Clinical Investigations Section, NIH-West African Research Laboratories, Ghana, 1962-1965
Assistant Professor of Pediatrics, University of Oklahoma, 1962- (on leave of absence)
Consultant, Pediatrics, USPHS, Department of Indian Health (Oklahoma), 1957-1962
Director, Pediatric Clinics, University of Oklahoma, 1956-1959
Instructor in Pediatrics, University of Oklahoma, 1956-1962
Instructor in Pediatrics, New York University, 1955-1956
National Tuberculosis Association (Trudeau) Fellow in Chemotherapy, New York University-Belleview Medical Center, 1955-1956
U.S. Air Force: Chief, Pediatric Section, Griffiss Air Force Base, 1953-1954, Mitchell Air Force Base, 1954-1955
Private Practice of Pediatrics, Boston, Massachusetts, 1947-1951; St. Albans, New York, 1951-1953; Oklahoma City, Oklahoma, 1956-1962 (part-time).
Clinical Assistant in Pediatrics, Children's Medical Center, Boston, Massachusetts, 1946-1947
Chief Resident Physician (Pediatrics), Boston City Hospital, 1945-1946
Assistant Resident Physician (Pediatrics), Boston City Hospital, 1944-1945
Intern (Pediatrics), Boston City Hospital, 1943-1944

MASSO, Anthony R.
b. Providence, Rhode Island, 1941

Elaine Angela

B.S., University of Rhode Island, 1963

Operations Officer, Smallpox Eradication Program, 1966-
Special Assistant, Office of Public Affairs, Peace Corps, Washington, D.C., September 1965-June 1966
Peace Corps Volunteer, Panama, 1963-1965

MCENANEY, John P.
b. Newton, Massachusetts, 1939

Celia Lorraine

A.B., Boston College, 1964

Operations Officer, Smallpox Eradication Irogram, Cameroon, 1966-
Program Representative (VD), New York, New York, 1964-1966

MILLAR, J. Donald
b. Newport News, Virginia, 1934

Joan
John Stuart 1959
Alison Gordon 1962
Virginia Taylor 1965

B.S., University of Richmond, 1956
M.D., Medical College of Virginia, 1959
D.T.P.H., London School of Hygiene and Tropical Medicine, 1966

Chief, Investigations Unit, Smallpox Eradication Program, CDC, Atlanta, 1966-
Chief, Smallpox Unit, Surveillance Section, Epidemiology Branch, 1963-1965
Deputy Chief, Surveillance Section, 1963-1964
EIS Officer; Chief, Epidemic Intelligence Service, 1962-1963, Assistant Chief, 1961-1962
Resident (Medicine), University of Utah, 1960-1961
Intern, University of Utah, 1959-1960

MOORE, Donald J.
b. El Centro, California, 1939

Barbara Marie Coffin
Michael Donald 1962
Darci Jill 1966

A.B., University of California, 1961
M.D., University of Southern California, 1965

Medical Epidemiologist, Smallpox Eradication Program, Niger, 1966-
Intern, San Diego County Hospital, 1965-1966
Externe, Hollywood Presbyterian Hospital, 1964-1965
Epidemiology Trainee, California Department of Public Health, 1964
Laboratory Technologist, Los Angeles County Hospital, 1963-1964

MORRIS, Leo
b. Boston, Massachusetts, 1935

Jayne
Kimberly 1963
Lorinda 1965

B.S., University of Florida, 1959
M.P.H., University of Michigan, 1963

Assistant Chief and Statistician, Smallpox Eradication Program, CDC, Atlanta, 1966-
Assistant Chief, Surveillance Section, Epidemiology Branch, 1964-1965
Statistician, Surveillance Section, Epidemiology Branch, 1963-1964
Statistician, Poliomyelitis Surveillance Unit, Surveillance Section, 1961-1962
EIS Officer, Poliomyelitis Surveillance Unit, 1959-1961

NAKANO, James H.
b. Hiroshima, Japan, 1922

Yayoi Margaret Nishikawa
Jeffrey M. 1951
Steven H. 1953
Phillip H. 1956

San Jose State College, 1939-1940
A.B., Stanford University, 1947
M.A., Stanford University, 1951
Ph.D., Stanford University, 1953

Chief, Vesicular Diseases Laboratory, Smallpox Eradication Program, CDC, Atlanta, 1966-
Research Virologist, Enterovirus Unit, CDC, Atlanta, 1959-1966
Assistant Director of Laboratories, Kaiser Foundation Hospital and Southern California Permanente Medical Group, Fontana, California, 1954-1959
Microbiologist, Palo Alto Hospital, 1952-1954
Teaching and Research Assistant, Department of Bacteriology and Experimental Pathology, Stanford University, 1948-1952

NOBLE, John, Jr.
b. Boston, Massachusetts, 1937

Mary Bartol
John, III 1964
Cyrus B. 1966

B.A., Harvard University, 1959
M.D., College of Physicians and Surgeons, Columbia University, 1963

Assistant Chief, Vesicular Diseases Laboratory, Smallpox Eradication Program, CDC Atlanta, 1966-
Virus Reference Unit, Laboratory Branch, CDC, Atlanta, 1965-1966
Intern and Resident, Massachusetts General Hospital, 1963-1965

ROBBINS, Gordon
b. Oakland, California, 1931

Barbara Ann George
Ann Kathleen 1955
Kimberly Diane 1959
John Gordon 1962

B.A., University of California, 1953
M.P.H., University of California, 1960

Health Educator, Smallpox Eradication Program, Regional Project Office, Lagos, Nigeria, 1966-
Director of Health Education, Orange County (California) Health Department, 1963-1966
Health Educator, Los Angeles County (California) Health Department, 1960-1963
Trainee, Health Education, California State Health Department, 1958-1959
University of California Dental School, 1956-1958
Sanitarian, City of Oakland, California, 1955-1956
Commissioned Officer, Army (Ordinance), 1953-1955
Sanitarian, University of California, June 1953-December 1953

ROBERTO, Ronald R.
b. Oakland, California, 1932

B.A., University of California, 1957
M.D., University of California, 1960
D.T.P.H., London School of Hygiene and Tropical Medicine, 1965

Assistant Chief, Investigations Unit, Smallpox Eradication Program, CDC, Atlanta, 1966-
Epidemiologist, Smallpox Unit, Surveillance Section, 1965
EIS Officer, Smallpox Unit, Surveillance Section, 1962-1964
Resident (Pathology), Boston City Hospital, Mallory Institute of Pathology, 1961-1962
Intern, King County Hospital, Seattle, 1960-1961

ROSENBLOOM, Arlan L.
b. Milwaukee, Wisconsin, 1934

Edith Kathleen Peterson
Eric David 1960
Maliah Jo 1962
Disa Lynn 1963
Harris Phillip 1966

B.A., University of Wisconsin, 1955
M.D., University of Wisconsin, 1958

Medical Epidemiologist, Smallpox Eradication Program, Cameroon-Gabon, 1966-
Fellow in Pediatric Endocrinology, University of Wisconsin Children's Hospital, Madison, Wisconsin, 1963-1964, 1965-1966
Chief Resident in Pediatrics, University of Wisconsin Children's Hospital, 1965
Resident (Pediatrics), University of Wisconsin Children's Hospital, 1962-1963, 1964-1965
Medical Officer, Pahang, Malaysia, 1961-1962
Physician-in-Charge, MEDICO Hospital, Kratie, Cambodia, 1960-1961
Resident (General Practice), General Hospital Ventura County (California), 1959-1960
Intern (Rotating), Los Angeles County General Hospital, 1958-1959

ROTHSTEIN, Nathaniel
b. New York, New York, 1920

Anne H.
Robert C. 1947
Kenneth J. 1948
Ellen Paul 1951

College of the City of New York, 1937-1940
George Washington University, 1941
Army Specialized Training Program (Chem. Eng.), University of Oklahoma, 1943
B.S., George Washington University, 1950
M.S., George Washington University, 1953
George Washington University, 1953-1955

Virologist, Smallpox Eradication Program Regional Project Office, Lagos, Nigeria, 1966-
Research Microbiologist and Acting Chief, Infectious Diseases Section, NIH-West African Laboratory, Accra, Ghana, 1962-1965
Chief, Immunology Section, Division of Veterinary Medicine, Walter Reed Army Institute of Research, 1961-1962
Bacteriologist, Division of Veterinary Medicine, Walter Reed Army Institute of Research, 1957-1961
Bacteriologist, Department of Veterinary Chemistry, Walter Reed Army Institute of Research, 1946-1957
Military Service, Medical Department, U.S. Army, 1942-1946

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Secretary, Smallpox Eradication Program, Regional Project Office, Lagos, Nigeria, 1966-
Secretary, Agency for International Development, Cotonou, Dahomey, 1964-1966
Administrative Secretary, Sanders Associates, Inc., Nashua, New Hampshire, 1957-1964
General Office Clerk, Palm Dress, Nashua, New Hampshire, 1956-1957
General Office Clerk, Granite State Knitting Company, Nashua, New Hampshire, 1947-1956

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B.A., Mary Knoll College, 1963
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Operations Officer, Smallpox Eradication Program, Dahomey, 1966-
Peace Corps Volunteer, West Cameroon, 1963-1965

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Duke University, Durham, North Carolina, 1943-1944

Equipment Specialist, Smallpox Eradication Program, Regional Project Office, Lagos, Nigeria, 1966-
Engineering Technician/Administrative Assistant, CDC, Venereal Disease Research Laboratory, Chamblee, 1961-1966
Engineering Technician/Administrative Assistant, VDEL, University of North Carolina, Chapel Hill, North Carolina, 1957-1961
Engineering Technician, VDEL, University of North Carolina, Chapel Hill, N.C., 1954-1957
Supply Clerk, VDEL, University of North Carolina, Chapel Hill, N.C., 1953-1954
Pipeline Supervisor, City of Durham, Water Department, 1946-1953

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Medical Epidemiologist, Smallpox Eradication Program, Nigeria (East), 1966-
Intern, Hennepin County General Hospital, Minneapolis, Minnesota, 1965-1966

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b. Binghamton, New York, 1940

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Christopher 1964

B.S., King's College, 1962

Operations Officer, Smallpox Eradication Program, Upper Volta, 1966-
Public Health Advisor (VD), New York City, 1963-1965
Program Representative (VD), New York City, 1962-1963
Investigator (VD), New York City, June 1962-July 1962

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