



THE UNIVERSITY
of EDINBURGH

Obstetric outreach as part of the Liberian Task-Sharing Program October 2019 to June 2021

Goals: the prevention and continued reduction in
maternal, paediatric and neonatal mortalities and
morbidity in Liberia

Obstetric outreach work (summary to June 2021)

- Undertaken by qualified obstetric clinicians (Ariza Jolo, Sanneh Kollie and Emmanuel Hne) with MCAI logistician (Austine Menlor) from Martha Tubman and Fishtown Hospitals to clinics in Grand Gedeh (including PTP refugee camp) and River Gee
- Includes obstetric ultrasound examination in all cases
- Many serious previously unrecognised obstetric conditions (for example placenta praevia, breech, twins, many Grand Parity patients, adolescents 16 years and under and mothers 40 years and older with complications, IUFD, post expected date of delivery, macrosomia, malaria) identified and managed
- Currently funded by Irish Aid in River Gee and by MCAI plus UNICEF in Grand Gedeh.



Ariza Jolo Obstetric Clinician on outreach Grand Gedeh



Emmanuel Hne Obstetric Clinician on outreach River Gee

Summary of outreach for Grand Gedeh. October 2019 to End December 2020

| Dates of outreach | Clinics screened | No. patients seen | No. significant obstetric problems detected. Some patients had > 1 problem |
|---|-------------------------------|-------------------|---|
| October 2019 | Zwedru local | 28 | 2 |
| January February 2020 | Janzon Putu Pen and Konobo | 29 | 15 |
| March 2020 | Konobo | 35 | 5 |
| April 2020 | Toe Town, Gbarzon | 30 | 5 |
| May 2020 | Konobo | 22 | 11 |
| Gravida and parity included in data collected and therefore from this point forward Grand Parity cases of 4 or more included as significant problems | | | |
| July 2020 | Gbarzon and Konobo | 71 | 25 |
| August 2020 | Karlors and Polar Town | 63 | 16 |
| September 2020 | PTP Refugee | 53 | 18 |
| October 2020 | Gbarzon and Putu Jarwad | 80 | 75 |
| November 2020 | Zai Town and Toe Town | 103 | 35 |
| December 2020 | Janzon and PTP Refugee | 62 | 24 |
| TOTALS | | 543 | 231 |

Summary of outreach for Grand Gedeh. January 2021 to May 2021

| Dates of outreach | Clinics screened | No. patients seen | |
|-------------------|--|-------------------|------------|
| January 2021 | Toffoi Town Clinic, Boundary Clinic, Konobo Health Centre | 39 | 10 |
| February 2021 | Karlorwleh Town Clinic Putu Pennokon Clinic Putu Jarwodee Clinic | 48 | 12 |
| March 2021 | Kumah Town Clinic Duogee Clinic Toe Town Clinic | 85 | 51 |
| April & May 2021 | Tuzon Clinic Gboleken Clinic Bargblor Town Clinic Zai Town Clinic Gbarzon Health Center Gbarzon Jarwodee Clinic | 70 | 63 |
| TOTALS | | 242 | 136 |

List of major obstetric problems identified on outreach screening: Grand Gedeh 2020

| Number | Problem |
|--------|--|
| 2 | Placenta praevia |
| 11 | Multiple pregnancies |
| 20 | Breech malpresentations after 28 weeks' gestation |
| 3 | Intrauterine fetal deaths previously undiagnosed |
| 67 | Grand multipara (parity 4 to 7) |
| 17 | Grand multipara (parity > 7) |
| 13 | Age of mother 40 years or more |
| 21 | Age of mother 16 years or less |
| 23 | Calcified placenta +/- oligohydramnios |
| 1 | APH abruption not previously identified |
| 5 | Previous Caesarean sections |
| 13 | Post term on ultrasound |
| 13 | Macrosomia on ultrasound |
| 1 | Reduced fetal movements reported but scan normal |
| 2 | Previous stillbirths |
| 1 | Previous PPH |
| 3 | Anaemia (2 needed transfusion) |
| 9 | Others: low lying placenta before 28 weeks = 1, malaria = 3, chest infection = 1, abdominal mass = 1, oblique lie = 1, Retained products ERPC needed = 2 |

List of major obstetric problems identified on outreach screening: Grand Gedeh Jan –May 2021

| Number | Problem |
|--------|---|
| 2 | Placenta praevia |
| 3 | Multiple pregnancies |
| 12 | Breech malpresentations after 28 weeks' gestation |
| 0 | Intrauterine fetal deaths previously undiagnosed |
| 69 | Grand multipara (parity 4 to 7) |
| 13 | Grand multipara (parity > 7) |
| 11 | Age of mother 40 years or more |
| 12 | Age of mother 16 years or less |
| 2 | Calcified placenta +/- oligohydramnios |
| 0 | APH abruption not previously identified |
| 2 | Previous Caesarean sections |
| 0 | Post term on ultrasound |
| 1 | Macrosomia on ultrasound |
| 0 | Reduced fetal movements reported but scan normal |
| 0 | Previous stillbirths |
| 0 | Previous PPH |
| 0 | Anaemia (2 needed transfusion) |
| 9 | Others: transverse lie=3, primigravida late 30's=3, anterior placenta=1, missed abortion=1, blight ovum=1 |

Summary of outreach River Gee July-December 2020

| Dates of outreach | Clinics screened | No. patients seen | |
|-------------------|----------------------|-------------------|-----------|
| July 2020 | Jimmyville Clinic | 21 | 20 |
| August 2020 | | 12 | 6 |
| September 2020 | Jarkaken Clinic | 10 | 9 |
| | Gbeapo Clinic | | |
| October 2020 | Sarbo Health Centre | 21 | 16 |
| | Toubo Clinic | | |
| November 2020 | Gbeapo Health Centre | 21 | 20 |
| | Chebaken Clinic | | |
| | Putuken Clinic | | |
| December 2020 | Freetown Clinic | 15 | 15 |
| | Kileppo Clinic | | |
| | Putuken Clinic | | |
| TOTALS | | 100 | 86 |

Summary of outreach River Gee January-June 2021

| Dates of outreach | Clinics screened | No. patients seen | |
|-------------------|-------------------|-------------------|-----------|
| January 2021 | Jimmyville Clinic | 21 | 19 |
| | Putuken Clinic | | |
| | Cheboken Clinic | | |
| February 2021 | Toubo Clinic | 18 | 14 |
| | Freetown Clinic | | |
| | River Gbeh Clinic | | |
| March 2021 | Nyaaken Clinic | 13 | 16 |
| | Drugbo Clinic | | |
| | Pronoken Clinic | | |
| April 2021 | Killepo Clinic | 16 | 13 |
| | Putuken Clinic | | |
| May 2021 | River Gbeh Clinic | 15 | 11 |
| | Freetown Clinic | | |
| | Killepo Clinic | | |
| June 2021 | Jarkaken Clinic | 21 | 15 |
| | Pronoken Clinic | | |
| TOTALS | | 104 | 88 |

List of major obstetric problems identified on outreach screening: River Gee

July 2020-June 2021

| Number | Problem |
|--------|--|
| 4 | Placenta praevia |
| 5 | Multiple pregnancies |
| 7 | Breech malpresentations after 28 weeks' gestation |
| 3 | Intrauterine fetal deaths previously undiagnosed |
| 59 | Grand multipara (parity 4 to 7) |
| 12 | Grand multipara (parity > 7) |
| 12 | Age of mother 40 years or more |
| 13 | Age of mother 16 years or less |
| 1 | Calcified placenta +/- oligohydramnios |
| 0 | APH abruption not previously identified |
| 11 | Previous Caesarean sections |
| 2 | Post term on ultrasound |
| 45 | Others: 2020- malaria = 16, macrosomia = 4, cysts=3, incomplete miscarriage=1, large abdomen=1, oblique lie=2, preeclampsia=1, HIV/AIDS=1 2021- malaria = 9, retained products ERPC=1, oblique lie=2, preeclampsia=1, HIV/AIDS=1, transverse lie=1, large fetus=1. |
| 174 | Total problems identified. NOTE some patients had more than one problem identified at outreach |

Current Training as part of task-sharing program

1. Obstetric clinicians:

10 fully qualified after 3 years of training (one RIP)

10 currently final year interns (9 qualified June 2021)

9 new trainees started September 2020

Trainers: Dr V. King, Dr K Goya, Dr M Casement, Dr D Watson, Dr B Hayden, Dr R Kalaivani, Dr K Hinshaw, Prof D Southall, Mrs K Borzoi, Jefferson Doe, Noah Jasper

2. Neonatal clinicians

3 fully qualified after 2 years of training (1 left program for USA)

5 currently final year interns (5 qualified in January 2021) (1 previously left program for Netherlands)

8 new trainees started September 2020

Trainers: Dr A. Kola, Dr A Earley, Dr A Duthie, Prof N. McIntosh, Prof D Southall

3. Qualified nurse anaesthetists undergoing additional training and support in advanced obstetric care

1 at Martha Tubman Hospital

1 at FJ Grant Hospital

Trainer: Dr D Watson, consultant obstetric anaesthetist UK

Estimated costs of outreach for each county for 1ST year

| ITEM | UNIT COST \$ | QTY | TOTAL COST \$ |
|--|-----------------|-----|------------------|
| Ultrasound scanner | 3,496 | 1 | 3,496 |
| Urinalysis test strips (100/pack) | 5 | 4 | 20 |
| Blood Pressure monitor | 54 | 2 | 108 |
| Pulse Oximeter | 321 | 1 | 321 |
| Fastep Hb Hemoglobinometer | 75 | 1 | 75 |
| Hemometer test strips (25/pack) | 16 | 8 | 128 |
| Thermoflash thermometer | 26 | 1 | 26 |
| Sub-total UK supply | | | 4174 |
| Delivery equipment Liberia (estimated 20%) | | | 835 |
| Medical supplies and drugs per year includes 20% delivery to Liberia | | | 9600 |
| Running costs county vehicle plus accommodation, DSA driver and logistician) | 650\$ per mth | | 7800 |
| County vehicle maintenance per year | | | 4000 |
| Additional incentive obstetric clinician | 100 \$ per mth | | 1200 |
| TOTAL PER COUNTY | | | 27,609 |