Additional File 3 Details of 111 intrauterine fetal deaths (IUFDs) identified before or on arrival at hospital/CEmOC facility.

Hospital and patient numbers	**Number IUFD** (Number /1000)	**Fresh (F) or Macerated (M)**	**Infected(I) not infected (NI)**	**Laboured at home, or clinic or both**	**Obstetric issues**	**High risk factors**
MTMH (from record numbers 899 to 1776) = 877	14 16/1000	7F 7M	5I 9NI	9 home, 2 clinic, 2 both, 1 hospital (FJ Grant)	1 placenta praevia, 1 cord prolapse, 1 ruptured uterus (with APH)	2 post term. (1 refused induction returned 5 days later with IUFD) 3 aged >34 years (36,38,41 years)
CB Dunbar (from record numbers 1637 to 3533) = 1896	65 34/1000	23F 38M 4 NR	30 I 33 NI 2 NR	28 home, 35 clinic, 2 Phebe Hospital (where no drugs or supplies were available)	4 Previous CS (one x 3CS); 1 polyhydramnios and anencephaly; 2 cord prolapse (1 of 2nd twin); 3 twin; 6 breech; 2 face, 1 NR; 3 preterm; 4 APH; 1 eclampsia; 2 malaria.	7 obstructed labour 1 prolonged labour 2 ruptured uterus 2 no surgical materials 1 Severe anaemia 23 Aged >34 or < 18 year (7 aged 16, 3 aged 40+)
Sinje CEmOC facility 327-41 = 286	20 70/1000	0 F 20 M	17 I, 3 NI	4 home, 1 clinic, 15 NR	3 APH (1 placenta praevia); 6 malaria; 1 face; 2 preterm; 5 breech; 1 eclampsia; 1 cord prolapse. (5 CS, 1 Vacuum)	1 ruptured uterus; 8 obstructed labour; 2 PROM; 4 anaemia; 1 aged 37 years;
Tellewoyan 934-249 =685	12 18/1000	5F 7M	7 I, 5 NI	2 home 10 NR	3 APH (2 placenta praevia), 1 cord entangled; 1 Anaemia 1; 2 Breech; 3 obstructed labour.	3 aged > 34 years;
TOTALS out of 3744 where data available on IUFD	111 **3%**					

Additional file 3 contains information on 111 Intra Uterine Fetal Deaths (IUFDs) identified before or on arrival at the 3 hospitals and 1 CEmOC facility. These data are from October 2021 to December 2022, as the data were not accurately collected before this time. Most of these IUFDs resulted from major obstetric problems, such as malpresentations, multiple pregnancy, antepartum haemorrhage, cord prolapse, placenta praevia, ruptured uterus, prolonged and obstructed labour, eclampsia, congenital anomaly, post 24 weeks gestation and severe anaemia. These complications of pregnancy were exacerbated in many patients by delay in reaching hospital and known absence of drugs and supplies at the hospital (see Discussion).

Comments on IUFD These are tragic figures with lowest prevalence at MTMH possibly reflecting the positive effects of obstetric outreach in that county since 2019. Even there, some patients were referred with fetal distress to hospital but could not reach hospital in time due to poverty, poor roads (especially rainy season), lack of ambulance with lack of fuel, and drivers. Major problems identified in outreach clinics included age < 17, placenta praevia, severe preeclampsia, PROM, PPROM, unmanaged, breech, severe anaemia (for example Hb 3g/dl), prolonged obstructed labour in 2 cases with ruptured uterus, lack of materials, previous CS etc. There is urgent need for obstetric outreach in all rural counties as well as better roads, functioning ambulances and essential drugs and supplies. Mothers identified as high risk should go to hospital as soon as labour starts. Clinic staff have now received training in neonatal resuscitation by MCAI. Local press and radio need to provide information. CEmONC facilities in far-to-reach areas, such as Konobo in Grand Gedeh county, need urgent upgrade.

NR = Not Recorded APH = Ante Partum Haemorrhage CS = Caesarean Section PROM = Prolonged Rupture Of Membranes