| **Ref. ID** | **First Author** | **Year of Publication** | **Year(s) of Study Coverage** | **Study Design** | **Country** | **Level of Represen-tation** | **Study Location** | **Study Setting** | **Cadre Name** | **Skilled** | **Parenteral Antibiotics** | **Parenteral Uterotonic Drugs** | **Parenteral Anti-convulsants** | **Manually Removal of Placenta** | **Remove Retained Products** | **Assisted Vaginal Delivery** | **Neonatal Resuscitation** | **Surgery (i.e. C-Section)** | **Blood Transfusion** | **Education Detail** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| [1] | Adegoke | 2012 | 2009-2011 | Cross-sectional | Gambia | National | Health Facility and Community | Rural and Urban | Community Health Nurse Midwife | Yes | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Enrolled Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Enrolled Nurse | Yes | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
| Enrolled Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| General Doctor | Yes | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Registered General Nurse | Yes | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Registered Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Ghana | National | Health Facility and Community | Rural and Urban | Auxiliary Midwife | Yes | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not stated |
| Community Health Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Enrolled Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Medical Assistant | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Registered Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Kenya | National | Health Facility and Community | Rural and Urban | Clinical Officer | Yes | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Not performed | Perform | Not stated |
| Community Midwife | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
| Enrolled Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Enrolled Nurse | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Enrolled Nurse Midwife | No consensus | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Perform | Not stated | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Registered Community Health Nurse | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Registered General Nurse | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Malawi | National | Health Facility and Community | Rural and Urban | Clinical Officer | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Enrolled Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Enrolled Nurse | Yes | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Perform | Not stated |
| Enrolled Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Maternal and Child Health Aide | Yes | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not stated |
| Medical Assistant | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Nurse Midwife Technician | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Nurse Technician | Yes | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Perform | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Nigeria | National | Health Facility and Community | Rural and Urban | Community Health Extension Worker | No | Perform | Perform | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Junior Community Heatlh Extension Worker | No | Perform | Perform | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Registered Midwife | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Sierra Leone | National | Health Facility and Community | Rural and Urban | Clinical Officer | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Enrolled Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Perform | Perform | Not stated |
| Maternal and Child Health Aide | No consensus | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Perform | Perform | Not stated |
| Registered Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| State Enrolled Community Health Nurse | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not stated |
| Somalia | National | Health Facility and Community | Rural and Urban | Auxiliary Midwife | No consensus | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not stated |
| Clinical Officer | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Community Midwife | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Nurse Midwife Technician | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Registered General Nurse | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated |
| United Republic of Tanzania | National | Health Facility and Community | Rural and Urban | Assistant Clinical Officer | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
| Assistant Medical Officer | Yes | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Perform | Perform | Not stated |
| Enrolled Nurse | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Enrolled Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Perform | Perform | Not stated |
| Health Officer | Yes | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Not stated |
| Maternal and Child Health Aide | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Perform | Perform | Not stated |
| Registered Midwife | No consensus | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Not stated |
| Zimbabwe | National | Health Facility and Community | Rural and Urban | Clinical Officer | Yes | Perform | Perform | Perform | Not performed | Perform | Not performed | Perform | Perform | Perform | Not stated |
| General Doctor | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Perform | Perform | Not stated |
| Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Perform | Perform | Not stated |
| Registered General Nurse | Yes | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| Registered Nurse Midwife | Yes | Perform | Perform | Perform | Perform | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| State Certified Nurse Midwife | Yes | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
| [2] | Adegoke | 2013 | Not stated | Cross-sectional | Nigeria | States (n=3) in Northern Nigeria | Health Clinic and Community | Rural and Urban | Community Health Extension Worker | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| Junior Community Heatlh Extension Worker | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
| Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
| [3] | Anderson | 2014 | 1989-2010 | Mixed methods | Ghana | All eligible graduates from Ghanian university based certified OB/GYN postgraduate training programs (n=2) | Health Facility | Rural and Urban | Obstetrician / Gynecologist | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + residency training |
| Obstetrician / Gynecologist | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + residency training |
| [4] | Ariff | 2010 | Not stated | Cross-sectional | Pakistan | National | Health Facility (Secondary and Tertiary) | Rural and Urban | Lady Health Visitor | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + 1 year internship |
| Community (Primary Care) | Rural and Urban | Lady Health Worker | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Hospital (Secondary and Tertiary) | Rural and Urban | Medical Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Health Facility (Secondary and Tertiary) | Rural and Urban | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| [5] | Ayiasi | 2014 | 2011 | Cross-sectional | Uganda | District (n=1) | Health Facility | Rural | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nursing Assistant | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [6] | Bharati | 2015 | 2013 | Cross-sectional | India | State (n=1) | Health Facility | Urban | Student Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma in nursing |
| [7] | Bhuiyan | 2005 | 2003 | Mixed methods | Bangladesh | National | Health Facility | Rural and Urban | Family Welfare Assistant | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Female Health Assistant | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [8] | Bogren | 2013 | Not stated | Mixed methods | Nepal | Key stakeholders from Government of Nepal, professional organizations, NGO's, UN agencies and bi-lateral organizations | Health Facility | Rural and Urban | Auxiliary Nurse Midwife | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 1.5 years training |
| Nurse (BN) | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Auxiliary Nurse + 2 months + 252 practice hours |
| Nurse (Generic BSc in Nursing) | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Nurse (Proficiency Certificate Level) | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Professional Midwife | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Certificate |
| [9] | Bradley | 2009 | Not stated | Qualitative | Malawi | Hospitals (n=4) | Hospital | Rural | Clinical Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Enrolled Nurse Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Medical Assistant | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse Midwife Technician | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Registered Nurse Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [10] | Carlo | 2009 | 2005 | Cohort | Zambia | City (n=2) | Health Clinic | Urban | Nurse Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| [11] | Carlough | 2005 | 2005 | Qualitative | Nepal | Districts (n=4) | Community | Rural and Urban | Maternal and Child Health Worker | Yes | Perform | Not stated | Perform | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 15 week course |
| [12] | Cheung | 2011 | Not stated | Mixed methods | China | Hospitals (n=10) in n=7 cities | Hospital | Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [13] | Danda | 2015 | 2014 | Cross-sectional | Zimbabwe | Hospitals (n=2) | Hospital | Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [14] | Danishevski | 2009 | 2004-2005 | Mixed methods | Russia | Health facilities (n=10 public, n=2 faith based) in Districts (n=2). | Health Facility | Not stated | Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + residency training |
| Obstetrician / Gynecologist | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [15] | Dawson | 2015 | 2011-2012 | Mixed methods | Papua New Guinea | Hospitals (n=4) with midwifery schools | Hospital | Not stated | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Midwifery school, 12 months |
| [16] | del Hierro | 2014 | Not stated | Cross-sectional | Ecuador | Province (n=1) | Health Center | Rural | Doctor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + residency training |
| [17] | DeMaria | 2012 | 2007 | Mixed methods | Mexico | Hospitals (n=2) | Hospital | Urban | Generalist Physician | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not performed | Not stated | Degree + residency training |
| Obstetric Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not performed | Not stated | Degree + one yr in-service attending >20 births |
| Professional Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not performed | Not stated | Degree |
| [18] | Dgedge | 2014 | 2008-2009 | Cross-sectional | Mozambique | National | Health Facility | Rural and Urban | General Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| Maternal and Child Health Nurse (B-level) | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| Maternal and Child Health Nurse (Mid-level) | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Medical Agent (Basic-level) | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Medical Technician (Mid-level) | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [19] | Dickerson | 2014 | Not stated | Mixed methods | Paraguay | Districts (n=5) | Hospital | Rural and Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [20] | Dogba | 2012 | Not stated | Qualitative | Mali | Community Health Centers (n=25) in one Region | Health Center (Community) | Rural | Doctor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Matron | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| Obstetric Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| [21] | Erlandsson | 2014 | 2013 | Qualitative | Nepal | Hospitals (n=2) | Hospital (Tertiary) | Not stated | Auxiliary Nurse Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Certified Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Doctor | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [22] | Evans | 2014 | 2012 | Quasi-experimental | India | City (n=2) | Health Facility | Urban | Auxiliary Nurse Midwife | Semi-skilled | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Doctor | Semi-skilled | Not stated | Not stated | Not stated | Perform | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Semi-skilled | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Malawi | District (n=1) | Health Facility | Rural and Urban | Clinical Officer | Semi-skilled | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse Midwife | Semi-skilled | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| United Republic of Tanzania | Region (n=1) | Health Facility | Rural and Urban | Health Orderly | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [23] | Ezeonwu | 2011 | Not stated | Cross-sectional | Nigeria | State (n=1) | Health Facility | Rural and Urban | Antenatal Mother | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Doctor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Senior Nursing Sister | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Staff Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Staff Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Ward Sister | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [24] | Fawole | 2008 | Not stated | Cross-sectional | Nigeria | States (n=3) in Southwestern Nigeria | Health Facility (Public and Private) | Rural and Urban | Auxiliary Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| Community Health Extension Worker | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Doctor | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [25] | Ferdous | 2011 | 2008 | Cross-sectional | Bangladesh | Hospitals (n=2) in Districts (n=2) | Hospital | Urban | Nurse | Yes | Not stated | Not stated | Not stated | Not performed | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [26] | Fichardt | 2000 | Not stated | Cross-sectional | South Africa | Province (n=1) | Health Facility | Not stated | Registered Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [27] | Fikree | 2006 | 2003 | Cross-sectional | Pakistan | District (n=1) | Health Facility | Rural and Urban | Doctor | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Female Health Technician | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Lady Health Visitor | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [28] | Foster | 2006 | 2005 | Qualitative | Dominican Republic | Hospital (n=1) | Hospital | Urban | Auxiliary Nurse | Yes | Perform | Perform | Not stated | Perform | Not stated | Perform | Not stated | Not stated | Not stated | Secondary school + 1 year training |
| Registered Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [29] | Fujita | 2015 | 2012 | Cross-sectional | Zambia | Health Center (n=1) | Health Center | Not stated | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [30] | Gebreegziabher | 2014 | 2014 | Cross-sectional | Ethiopia | Hospital (n=1) | Hospital | Urban | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Obstetrician / Gynecologist | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Pediatrician | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| [31] | Haile-Mariam | 2012 | 2008-2009 | Cross-sectional | Ethiopia | Health Facilities (n=741) | Health Facility | Rural and Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| [32] | Hammah | 2013 | 2009-2010 | Mixed methods | Ghana | Health Facilities (n=2) in the city of Accra | Health Facility | Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [33] | Harvey | 2004 | 2002 | Cross-sectional | Benin | National tertiary care facility (n=1), District level hospitals (at least n=2) and a mix of rural and urban facilities | Health Facility | Rural and Urban | Certified Midwife | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Doctor | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Ecuador | National tertiary care facility (n=1), District level hospitals (at least n=2) and a mix of rural and urban facilities | Health Facility | Rural and Urban | Certified Midwife | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Doctor | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Jamaica | National tertiary care facility (n=1), District level hospitals (at least n=2) and a mix of rural and urban facilities | Health Facility | Rural and Urban | Certified Midwife | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Certified Midwife | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Doctor | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Rwanda | National tertiary care facility (n=1), District level hospitals (at least n=2) and a mix of rural and urban facilities | Health Facility | Rural and Urban | Certified Midwife | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Doctor | Yes | Perform | Not stated | Perform | Perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [34] | Huchon | 2014 | 2012 | Cross-sectional | Mali | Referral health centers (n=9) in Regions (n=2) | Health Center (Referral) | Rural | Doctor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Obstetric Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Primary school + 3 years training |
| [35] | Ith | 2013 | Not stated | Qualitative | Cambodia | Hospital (n=1), Referral Hospitals (n=2) and Health centers (n=2) in one Province | Health Facility | Not stated | Doctor | Yes | Not stated | Perform | Not stated | Perform | Perform | Perform | Not performed | Not stated | Not stated | Not stated |
| Nurse | Yes | Not stated | Perform | Not stated | Perform | Perform | Perform | Not performed | Not stated | Not stated | Secondary school + 1 year training |
| Primary Midwife | Yes | Not stated | Perform | Not stated | Perform | Perform | Perform | Not performed | Not stated | Not stated | Not stated |
| Secondary Midwife | Yes | Not stated | Perform | Not stated | Perform | Perform | Perform | Not performed | Not stated | Not stated | Not stated |
| [36] | Jones | 2015 | 2013 | Cross-sectional | Sierra Leone | National | Health Facility | Rural and Urban | Maternal and Child Health Aide | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [37] | Jones | 2015 | Not stated | Qualitative | United Republic of Tanzania | Hospitals (n=2 government, n-1 large tertiary) in Dar es Salaam | Hospital | Urban | Nurse Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [38] | Kildea | 2012 | Not stated | Mixed methods | Mongolia | Districts (n=6) | Health Facility | Rural and Urban | Family Doctor | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Feldsher | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Neonatal Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Obstetrician / Gynecologist | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
| [39] | Kim | 2013 | 2009-2010 | Cross-sectional | Afghanistan | National | Health Facility | Rural and Urban | Doctor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated |
| [40] | Knoble | 2010 | 2007 | Cross-sectional | Nepal | District (n=4) | Health Facility | Rural | Auxiliary Health Worker | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Health Assistant | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Senior Auxilary Health Worker | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [41] | Lobis | 2011 | 2009 | Mixed methods | Malawi | National | Hospital (District and Central) | Rural and Urban | Clinical Officer | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | 1) 3 years training + 1 year internship or 2) 18 months upgrade from medical assistant + 1 year internship |
| Health Facility | Doctor | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Health Facility | Enrolled Nurse Midwife | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated | Not stated | Not stated |
| Hospital (District) and Health Center | Medical Assistant | Not stated | Perform | Perform | Perform | Some perform | Some perform | Some perform | Perform | Not stated | Not stated | Secondary school + 2 years training + 1 year internship |
| Health Facility | Nurse Midwife Technician | Not stated | Perform | Perform | Perform | Perform | Not performed | Perform | Perform | Not stated | Not stated | Not stated |
| Health Facility | Registered Nurse Midwife | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated | Perform | Not stated |
| United Republic of Tanzania | National | Hospital (Regional and District) | Rural and Urban | Assistant Medical Officer | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Clinical officer designation + 2 years training |
| Health Center | Clinical Officer | Not stated | Perform | Perform | Perform | Perform | Perform | Not performed | Perform | Not stated | Perform | Two routes: 1) Secondary school + 3 years training or 2) Clinical Asssistant + 1 year training |
| Health Facility | Enrolled Nurse Midwife | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated | Perform | Not stated |
| Health Facility | Medical Officer | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
| Health Facility | Registered Nurse Midwife | Not stated | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated | Perform | Not stated |
| [42] | Makowiecka | 2008 | 2005 | Cross-sectional | Indonesia | District (n=2) | Hospital (Public) | Rural and Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| Health Center | Rural and Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| Hospital (Public) | Rural and Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| Community | Rural and Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| Health Facility (Public) | Rural and Urban | Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| Community | Rural and Urban | Village Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma |
| [43] | Malhotra | 2014 | 2010 | Cross-sectional | India | District Hospital (n=1) and Community Health Centers (n=2) from Districts (n=2) | Hospital, Health Facility and Community | Rural and Urban | Auxiliary Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Perform | Perform | Not stated | Not stated | Not stated |
| Obstetrician / Pediatrician | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Perform | Perform | Not stated | Not stated | Not stated |
| Staff Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Perform | Perform | Not stated | Not stated | Not stated |
| [44] | Mamba | 2000 | Not stated | Cross-sectional | Swaziland | Antenatal clinics in public health units (n=6) in Regions (n=4) | Health Center or Health Clinic (Public) | Rural | Nurse Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [45] | Mangham-Jefferies | 2014 | 2008-2013 | Qualitative | Ethiopia | Rural kebeles (smallest admin structure of government) in SNNP region and n=2 zones of Oromia Region | Health Post | Rural | Health Extention Worker | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 1 year training |
| [46] | Mansoor | 2013 | 2011-2012 | Cross-sectional | Afghanistan | Provinces (n=11) | Health Facility (Public) and Community | Rural | Midwife (CME) | Yes | Not stated | Not stated | Not stated | Perform | Perform | Perform | Not stated | Not stated | Not stated | Not stated |
| Hospital (Provincial and District) | Rural and Urban | Midwife (IHS) | Yes | Not stated | Not stated | Not stated | Perform | Perform | Perform | Not stated | Not stated | Not stated | Not stated |
| [47] | Mirkuzie | 2014 | 2013 | Cross-sectional | Ethiopia | Public Health Centers (n=10) in Addis Ababa | Health Center | Urban | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [48] | Nsemo | 2013 | Not stated | Mixed methods | Nigeria | Hospitals (n=1) in a city | Hospital | Urban | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [49] | Nyango | 2010 | Not stated | Cross-sectional | Nigeria | State (n=1) | Health Facility | Rural | Community Health Extension Worker | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Doctor | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Health Center (Public) | Rural | Nurse Midwife | Yes | Not stated | Perform | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [50] | Ogunlesi | 2008 | 2006 | Cross-sectional | Nigeria | Hospitals (n=4) in States (n=4) in the Southwestern Nigeria | Hospital | Rural and Urban | Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [51] | Ojofeitimi | 2009 | Not stated | Cross-sectional | Nigeria | Health institutions (n=2) in one State | Health Facility | Not stated | Community Health Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school |
| Medical Student | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Post-secondary in service training |
| Nursing Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Post-secondary |
| [52] | Oladapo | 2006 | 2004-2005 | Cross-sectional | Nigeria | State (n=1) peripheral maternity units (n=66) | Health Center | Rural and Urban | Community Health Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Health Attendant | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Junior Community Heatlh Extension Worker | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Matron | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Medical Officer of Health | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Senior Community Health Extention Worker | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Senior Community Health Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Senior Nursing Sister | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Staff Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [53] | Oladapo | 2009 | 1999-2000 | Cross-sectional | Nigeria | Health Faculties (n=7) in one Southwest Region | Hospital and Health Facility (Public, Tertiary Care) | Rural and Urban | Doctor (Intern) | Not stated | Some perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated |
| Matron | Not stated | Some perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated |
| Nurse Midwife | Not stated | Some perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated |
| Obstetrician / Gynecologist | Not stated | Some perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated |
| Resident Doctor | Not stated | Some perform | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated |
| [54] | Opiah | 2012 | Not stated | Cross-sectional | Nigeria | Health facilities (n=2) | Hospital | Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [55] | Partamin | 2012 | 2009-2010 | Cross-sectional | Afghanistan | CEMONC health facilities (n=78) | Health Facility | Rural and Urban | Doctor | Yes | Perform | Not stated | Not stated | Not stated | Not stated | Perform | Perform | Not stated | Not stated | Not stated |
| Midwife | Yes | Perform | Not stated | Not stated | Not stated | Not stated | Perform | Perform | Not stated | Not stated | Not stated |
| [56] | Parveen | 2011 | 2007-2008 | Mixed methods | Bangladesh | Hospitals (n=6) from Districts (n=2) | Hospital | Not stated | Assistant Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Community Skilled Birth Attendant | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| Family Welfare Visitor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Medical Assistant | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [57] | Premadasa | 2008 | 2005-2006 | Cross-sectional | Kuwait | National | Health Facility | Rural and Urban | Student Medical Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [58] | Prytherch | 2012 | 2010 | Cross-sectional | United Republic of Tanzania | Health Facilities (n=10 public, n=2 faith based) in Districts (n=2). | Health Facility | Rural | Assistant Health Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Clinical officer designation + 3 years training |
| Assistant Medical Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 2 years training |
| Clinical Officer | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
| Doctor (Specialist) | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + residency training |
| Enrolled Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | In-service training as nurse midwife |
| Enrolled Nurse Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma (4 years) or Degree (3 years) |
| Maternal and Child Health Aide | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Pre-service training |
| Nurse Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
| Nursing Attendant | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary + 2 years training |
| Public Health Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 2 years training |
| Registered Nurse | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
| [59] | Sarfraz | 2014 | 2011 | Qualitative | Pakistan | Tehsils (n=6, second-lowest tier of local government, 5 rural, 1 urban) from one district | Community | Rural and Urban | Community Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Perform | Not stated | Not stated | Not stated | Community based training (12 months) |
| Lady Health Visitor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| Lady Health Worker | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma in public health nursing |
| [60] | Saswata | 2005 | 2003 | Cross-sectional | Uganda | National | Health Facility | Rural and Urban | Clinical Officer | Not stated | Not stated | Not stated | Not stated | Some perform | Not stated | Not stated | Not stated | Not stated | Not stated | Specialist training (3 years) |
| [61] | Schack | 2014 | 2011 | Qualitative | Ghana | District hospitals (n=2) | Hospital | Urban | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [62] | Shaban | 2012 | 2009 | Mixed methods | Jordan | National | Health Facility | Not stated | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree |
| [63] | Sharma | 2013 | 2008-2009 | Mixed methods | India | Maternity sections of public health facilities in a province | Community | Rural | Auxiliary Nurse Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 1.5 years training |
| Graduate Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Diploma in midwifery |
| Staff Nurse | Yes | Not stated | Not stated | Not stated | Perform | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + additional 11 months to qualify as specialized midwives |
| [64] | Shimoda | 2015 | Not stated | Qualitative | United Republic of Tanzania | Hospital (n=1) and health center (n=1) in Dar es Salaam | Health Facility | Urban | Midwife | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
| [65] | Syamala | 2004 | Not stated | Mixed methods | India | Districts (n=11) in one State | Community | Rural | Multipurpose Health Worker (Female) - MPHW (F)/ANM | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Assistant Nurse Midwifery (basic) training |
| [66] | Traore | 2014 | 2011-2012 | Cross-sectional | Mali | Districts (n=2) | Health Facility | Rural and Urban | Doctor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + residency training |
|  | Health Technician | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
|  | Matron | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Primary school + 3 years training |
|  | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Primary school + 3 years training |
|  | Obstetric Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 3 years training |
|  | Senior Health Technician | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
| [67] | Ueno | 2015 | 2012 | Cross-sectional | United Republic of Tanzania | District (n=1) | Health Facility | Urban | Assistant Clinical Officer | No | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Secondary school + 2 years training |
|  | Assistant Medical Officer | Yes | Perform | Perform | Some perform | Some perform | Some perform | Some perform | Some perform | Some perform | Some perform | Not stated |
|  | Clinical Officer | Yes | Some perform | Perform | Some perform | Some perform | Some perform | Not performed | Some perform | Not performed | Some perform | Secondary school + 3 years training |
|  | Doctor | Yes | Some perform | Some perform | Some perform | Some perform | Perform | Some perform | Some perform | Perform | Some perform | Not stated |
|  | Enrolled Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Enrolled Nurse Midwife | Yes | Some perform | Perform | Some perform | Some perform | Some perform | Some perform | Some perform | Not performed | Some perform | Nurse/Midwifery school + 2 years additional training |
|  | Maternal and Child Health Aide | Yes | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Professional Nursing or Midwifery education (4-5 years) |
|  | Medical Assistant | No | Some perform | Some perform | Some perform | Not performed | Not performed | Not performed | Some perform | Not performed | Some perform | Midwifery course (18 months) |
|  | Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Some perform | Perform | Perform | Perform | Perform | Not stated |
|  | Public Health Nurse | Yes | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not performed | Not stated |
|  | Registered Nurse Midwife | Yes | Some perform | Some perform | Some perform | Some perform | Some perform | Some perform | Some perform | Not performed | Some perform | Diploma in nursing + midwifery |
| [68] | Utz | 2013 | 2011-2012 | Cross-sectional | Bangladesh | Key informants from each country | Health Facility | Rural and Urban | Assistant Nurse | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Community Skilled Birth Attendant | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Degree |
|  | Family Welfare Visitor | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Degree |
|  | Medical Assistant | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + 1 year training in obstetrics |
|  | Medical Officer | No | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | No formal education |
|  | Medical Officer - Obstetrics trained | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Midwife | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Senior Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
|  | Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
|  | Sub-Assistant Community Medical Officer | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | India | Key informants from each country | Health Facility | Rural and Urban | Auxiliary Nurse Midwife | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Not stated |
|  | Ayurvedic Doctor | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Degree |
|  | Lady Health Visitor | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Degree + 16 weeks EMOC or 18 weeks for anesthesia training |
|  | Medical Officer | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Degree + residency training |
|  | Medical Officer - Obstetrics trained | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | No formal education |
|  | Midwife | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Senior Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Assistant Nurse Midwife training + 6 monhs addition training |
|  | Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
|  | Nepal | Key informants from each country | Health Facility | Rural and Urban | Auxiliary Nurse Midwife | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
|  | Generalist Physician | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Degree |
|  | Maternal and Child Health Worker | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + 6 months training in obstetrics |
|  | Medical Assistant | Yes | Perform | Perform | Perform | Not performed | Perform | Perform | Perform | Not performed | Perform | Degree + residency training |
|  | Medical Officer | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + 3 year training in obstetrics |
|  | Medical Officer - Obstetrics trained | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Midwife | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | No formal education |
|  | Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Senior Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Perform | Perform | Perform | Not performed | Perform | Not stated |
|  | Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Not stated | Not performed | Perform | Not performed | Perform | Not stated |
|  | Pakistan | Key informants from each country | Health Facility | Rural and Urban | Community Skilled Birth Attendant | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Not performed | Degree |
|  | Family Health Worker | No | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Degree + 1 year training in obstetrics |
|  | Lady Health Visitor | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Degree + residency training |
|  | Medical Assistant | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Medical Officer | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Degree + 18 months training |
|  | Medical Officer - Obstetrics trained | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Midwife | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
|  | Obstetrician / Gynecologist | Yes | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Perform | Not stated |
|  | Senior Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Perform | Not performed | Perform | Not stated |
|  | Staff Nurse | Yes | Perform | Perform | Perform | Not performed | Not performed | Not performed | Not performed | Not performed | Perform | Not stated |
| [69] | Yisma | 2013 | 2012 | Cross-sectional | Ethiopia | Addis Ababa | Health Facility | Urban | Doctor | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Nurse | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Public Health Officer | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated |
|  | Zainullah | 2014 | 2008-2010 | Mixed methods | Afghanistan | National | Hospital | Urban | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 2 years training |
| [70] | Community | Rural | Midwife | Yes | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Not stated | Secondary school + 2 years training |

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