

Impressions of maternal healthcare in Ghana

CARRY CARE



Impressions of maternal healthcare in Ghana

TEXT **Maartje Santema**
PHOTOS **Nienke Elenbaas**

Women, carriers for 9 months.

Wanting to stay healthy, the women themselves and their unborn children. Giving birth. WHAT IS NEEDED? WHAT IS AVAILABLE?

Carrying babies. **Researchers,** carriers of knowledge, skills and ambitions.

Pushing the boundaries, to discover, to find a better way, to improve.

Carrying maternal health. **Healthcare professionals,**

carriers of the women in need. To heal, to cure and to support.

To provide the help that is needed for a safe

pregnancy and delivery. CARRYING THE MOTHER

AND THE CHILD. **Fathers,** carriers of their families.

Earning money, supporting the household, being involved. GIVING LOVE.

Carrying their wives and children.

They all carry, they all care.



Korle Bu Teaching Hospital (KBTH), Accra. One of the four teaching hospitals in Ghana.

The Obstetrics and Gynaecology Department of KBTH serves mainly as a referral centre for the southern part of the nation, which has a population of over 10 million. It also serves as the foremost training facility for medical students and professions allied to medicine. The staff, through research, aims to provide evidence-based care to women to reduce maternal and infant mortality.

MATERNAL HEALTHCARE IN GHANA

Ministry of Health approved

- Hospitals: teaching (4), regional (8), district (95)

Ministry of Health approved

- Polyclinics/Health centers
- Maternity homes
- Community-based Health Planning and Services (CHPS)

Alternate

- Traditional Birth Attendants
- Herbalists
- Prayer camps



“THE JULIUS CENTER IS A FORWARD-LOOKING INSTITUTION OF EXCELLENCE IN EPIDEMIOLOGICAL RESEARCH WHERE I RECEIVED A VERY WARM WELCOME AND FELT AT HOME DURING MY THREE MONTHS IN THE NETHERLANDS IN 2009.”

IRENE AKUA AGYEPONG, MBCHB DRPH FGCPs

Public Health Physician, Research and Development Division,
Ghana Health Service/Public Health Faculty, Ghana College
of Physicians and Surgeons

Research area: Health Policy and Systems

“The start of the collaboration with the Julius Center was the privilege of being attached to UMC Utrecht during my two year period as holder of the Prince Claus Chair in Equity and Development between 2008 and 2010.

Despite being by choice a Health Policy and Systems researcher, I appreciated the core work of the Julius Center, the importance of epidemiology and biostatistics, as well as the excellence of the center in this area. I felt there was the opportunity for multi-disciplinary collaboration and to bring Health Policy and Systems strengths and perspectives to complement the Clinical Epidemiology strengths and perspectives of the center. I also felt there was the opportunity to develop longer term research and capacity building collaborations well beyond the period of the chair. I think all these visions and expectations have been met and continue to be met.

I think a continuing priority for maternal healthcare research will be to understand how to design and adapt interventions to work effectively to scale in context and deliver population health gains. I also think it will be important to continue efforts to span disciplinary and expertise boundaries since the complementary skills of these different expertise will be needed for research that makes a difference in individual and population health outcomes.

The fact I have been able to collaborate with Ghanaian and Dutch partners and contribute towards the development and retention of applied health research capacity in West Africa and beyond that in low- and middle-income countries globally makes me proud.

Of course, the collaboration has not all been smooth sailing – and I am sure all participants in the process will agree to that. Network and team resilience is the ability to survive patches and make gains rather than the absence of challenge. Indeed, if you have not yet met any challenge you probably have not tried to do anything of significance!”



Out Patients Department KBTH

‘I am happy my pregnancy is carefully monitored.’

•Being pregnant is not a problem, but the delivery is. My babies just don’t want to come out. The first time, it took me four days. I was having high blood pressure, the delivery was painful, I was exhausted and it ended in a Caesarean Section. Unfortunately, the second pregnancy ended the same way. The doctor gave me 24 hours to give birth, but it just wasn’t happening. With my third pregnancy, the doctor didn’t want me to go through labour again, and he gave me the date for a C-Section. And so, it will happen this time. I trust my doctor and I am happy my pregnancy is carefully monitored. •

“Hypertensive disorders,
(severe preeclampsia and eclampsia)
Obstetrics Hemorrhage
(antepartum or postpartum)
Severe Anemia,
DIABETES MELLITUS,
Puerperal infection...

... these are the most
common problems
during pregnancy we
have to manage.”

ANITA, midwife



Ward KBTH



LABORATORY →

OBST.
TREATMENT
ROOM



Dr. DAMALE:

‘Sense a wider area to get an impression, and pay attention to the patients’ face. Push it down and feel what’s there. Is it a bump or a breech?’

TEACHING

ANDREW (23) STUDENT:

‘It’s a cephalic presentation.’

Dr. DAMALE:

‘Well done, next try to palpate more of the presenting part from your wrist instead of the elbow.’



Ward KBTH



Antenatal care KBTH

Antenatal care attendance Greater Accra Region: over 90%

‘During the antenatal class, they examine me and they teach me about malaria prevention, about water pollution and mosquitoes. Things that are in my life environment and could cause diseases like dysentery, cholera, malaria or dengue. It’s not a healthy environment for pregnant women and their fetus.’

**‘Every day,
you are
at risk.’**

ABIGAIL (28)

‘**A woman is
not a womb.**

A woman has
a womb.

A Reproduction is
a function of women
not **the** function.

They have the **right**
to **choose for
pregnancy.**’

PROF. FRED SAI (93),

‘The godfather of maternal health’



•I breastfed my children for over 6 months exclusively. My mother and grandmother wanted to give them porridge too, but I stood up for myself. I learned at postnatal care that that's the best for a baby. ’

‘I’m proud of myself that I stuck to the advice of the nurses.’

REGINA (24)



Postnatal care KBTH



‘TEACHING AND RESEARCH IS THE BASE OF OUR HOSPITAL. THIS IS A LEARNING ENVIRONMENT’

DR. ALI SAMBA

Obstetrician-Gynaecologist/Head of Department
of Obstetrics and Gynaecology KBTH

Research area: Family planning and
uro-gynaecology (fistula, prolapse, pelvic surgery)

‘I love collaboration. A lot of it. That is the way to go. Share ideas, learn and improve it. That always improves the quality of our service. The collaboration with The Julius Center brings us more of that!’

‘KBTH is a teaching hospital and that is what we do. Teach our residents, our students and our fellows. Facilitate them to do research and self-development, to become self-assured qualified professionals who are open for learning. When they leave KBTH, they must have the knowledge. This is their learning place. We make them ready to continue practicing all over the country. Every day, there is the morning meeting and we challenge the responsible team to discuss cases they have managed. They have to give clear-cut indications. You want them to be confident of themselves and to be aware of the decisions they make. It is part of the learning process. We focus on reducing the maternal mortality rate and on improving the quality of care, in terms of communication with the patients and ethical issues. We want to offer women choices. We are surely making some improvements. Antenatal coverage nationwide is over 90 percent now. Nearly 70 % of the women deliver in a hospital or health centre. There is a lot of progress in family planning. All professionals are embracing family planning and our reproductive health/family planning unit is state of the art. That is what I am very proud of. I put a lot of effort in it. Family planning is key! There is a lot of need for our services and there always will be challenges. I just want to help the women.’

‘I was pregnant but I **lost my baby** after four months. My boyfriend is 14. To be honest I **was relieved**, we are too young to become parents.


I want to wait until 16.

Then I think I will be ready to become a mother.

There is a lot of **bullying** about being pregnant at a young age.’

‘PEER PRESSURE IS KEY.’

ABENA (13)

A young woman with short dark hair, wearing a white, long-sleeved, off-the-shoulder dress, is sitting in the back of a white van. She is looking out the window to her right, resting her chin on her hand. The van's interior is visible, including a grey seat and a window frame. Outside the window, there are buildings and trees under a bright sky.

‘An abortion is better accepted than keeping your baby at this young age.’



Ward KBTH

‘I want to
go HOME
and eat
Fufu.’

Obesity is a risk factor for hypertensive disorders in pregnancy.

‘I’m proud that
all my children attend
school and I hope they will become
‘something’ in life. **I have a lot of
dreams**, but life is difficult.
I work 6 days a week, from 5 am till 7 pm
as a trader. School fees,
feeding and clothing my children
takes A LOT OF MONEY.
I can’t do more.’

MARY (31)



Korle Gonno

Maternal mortality rate at the end of the Millennium Development Goals period (2015):

319 per 100,000 live births, which was 580 per 100,000 in 1990

Sustainable Development Goal 3's target (by 2030):

< 70 per 100,000 live births

Facts and figures

Neonatal mortality rate at the end of the Millennium Development Goals period (2015):

27.5 per 1,000 live births

Sustainable Development Goal 3's target (by 2030):

≤ 12 per 1,000 live births





Atiwa-district Moseaso

challenges in rural areas:

MANPOWER; the community health nurses are few and their numbers are inadequate for effective coverage of the whole district; **POWER AND ELECTRICITY;** there are power shortages in some areas at the peripheries and some health facilities may have problems with regular power.

TRANSPORTATION: Patients in some villages have to be transported by motorbikes, walk or be carried since there are no accessible roads. This may cause delay in getting medical help.

DELIVERY BY TRADITIONAL BIRTH ATTENDANTS: Although, traditional birth attendants are on the decline because of the free delivery policy, some women are still not aware of the risk and they come in too late for professional help.

DR. HANNAH BROWN / UNIVERSITY OF GHANA



‘I WANT TO REACH EXCELLENCE IN RESEARCH. PERFECT IS GOOD, EXCELLENCE IS BETTER.’

DR. MERCY ANNA NUAMAH

Coordinator of research in the ObGyn-department

Research area: Hypertension, maternal serum leptin – progression during pregnancy

‘The online epidemiology education of the Julius Center contains a seminar with Ghanaian and Dutch maternal health professionals. A great opportunity to disseminate knowledge and experiences.’

‘Research is in my veins. It is dynamic and necessary for improvement. Research is the future. I schooled and worked in Japan, where the feeling of excellence was all around. My mentors during my PhD shared their love for perfection and taught me discipline. Research improves current practice. Because that’s what it is all about. The ultimate aim of research for me is to provide better guidance for practitioners and better counselling to pregnant women. Working on both sides, all parties involved benefit.’

My personal goal is to train professionals around me, so that they can take over. I am in the stage of life that I want to contribute to the next generation. I like to teach medical students and residents and support them in their projects and fellowships. That enables them to do research. In Ghana, doctors are needed for the clinical work. The workload is high. Ghanaian researchers have to balance constantly between treating patients and doing research. That is the situation here. They have to look for what is possible, use it, learn, teach and carry on.’



‘Ghana is committed to realizing universal health coverage under the SDGs. This includes ensuring that women continue to have access to maternal health care **without any financial hardships**. ARHR and I personally are determined to work to ensure **achievement of this milestone**.

There are opportunities every day for strengthening primary health care systems to meet health needs.’

VICKY OKINE / Founder/
Director of the Alliance for
Reproductive Health Rights (ARHR)

ARHR is a network
organization that stands for the
Ghanaian women with the focus on
advocacy, pregnancy, healthcare.

Global Health at the Julius Center, UMC Utrecht

Julius Global Health is part of the University Medical Center Utrecht and Utrecht University in The Netherlands. We are an interdisciplinary team of researchers, public health experts and clinical practitioners.

Our goals include:

- > To conduct high impact (clinical) epidemiologic research generating evidence to contribute to improved individual and population health;
- > To educate new generations of researchers and health care workers, for example through short courses, MSc and PhD programs.

Through research, we aim to support the attainment of Sustainable Development Goal 3's targets to reduce maternal and infant mortality. Our research activities in Ghana are in collaboration with our partners at the University of Ghana's College of Health Sciences, the Ghana Health Services and Korle Bu Teaching Hospital and focus on hypertensive disorders of pregnancy, Caesarean Sections and clinical decision-making support systems for antenatal, delivery and postnatal care in health care facilities.

For more information and an overview of current projects:
www.globalhealth.eu



UMC Utrecht
Julius Center



‘I make **herbal drink** for my granddaughter. She became anemic during pregnancy and she was **staying in the hospital** for three months. She tried to have a natural birth, but she had a Caesarean Section. She just had no strength left. I grind a special kind of blueberries, we call it **‘kantoose’**, and boil it. Mary drinks it every day and it will make her stronger. I do a lot with herbs.’

ERNESTINA (58)



‘The first few days, a **new born baby** is very vulnerable. After one week a baby is considered to be a human being and **he or she** is named.’

CHARLOTTE, nurse NICU



Neonatal Intensive Care Unit (NICU) KBTH

**‘Women are a
SIGNIFICANT
economic
backbone
of the family.’**

KWASIBA (41)



Korle Gonno

‘Hypertension in pregnancy is a big issue in Ghana. In 2006 and 2009, we ranked the 10 top causes of outpatient and inpatient illnesses in the Greater Accra Region. Hypertensive disorders in pregnancy was among the top 3 and is moving up the ranks. Hypertension deserves priority! I did research on hypertension with the focus on the differences between the most urbanized region of Greater Accra, and the least urbanized region in Ghana, the Upper West. I collected data from the district hospitals. We saw that the more rural women lived, the less hypertension they had. It has something to do with lifestyle. Rural lifestyle is more energetic and they eat more natural food, more vegetables compared to the urban areas where the diet is ‘Westernized’. My research has different aims. To predict which pregnant women may develop problems caused by hypertension during pregnancy and increase awareness about this. I want to identify them at the early stages of pregnancy so it can be managed appropriately. The public has to become aware that the non-communicable diseases such as hypertension are becoming more common in our country and the individuals themselves can make a change. That is about public education. This is why my department works together with the departments for Nutrition and Health Promotion to promote healthy eating and healthy lifestyles. We are collaborating together to send messages to the public. We have to adjust our way of communication, drawing on the examples in our Ghanaian culture and beliefs, focusing on the similarities and speaking the local language. That way, people will not only hear, but also believe and practice what we teach them.’

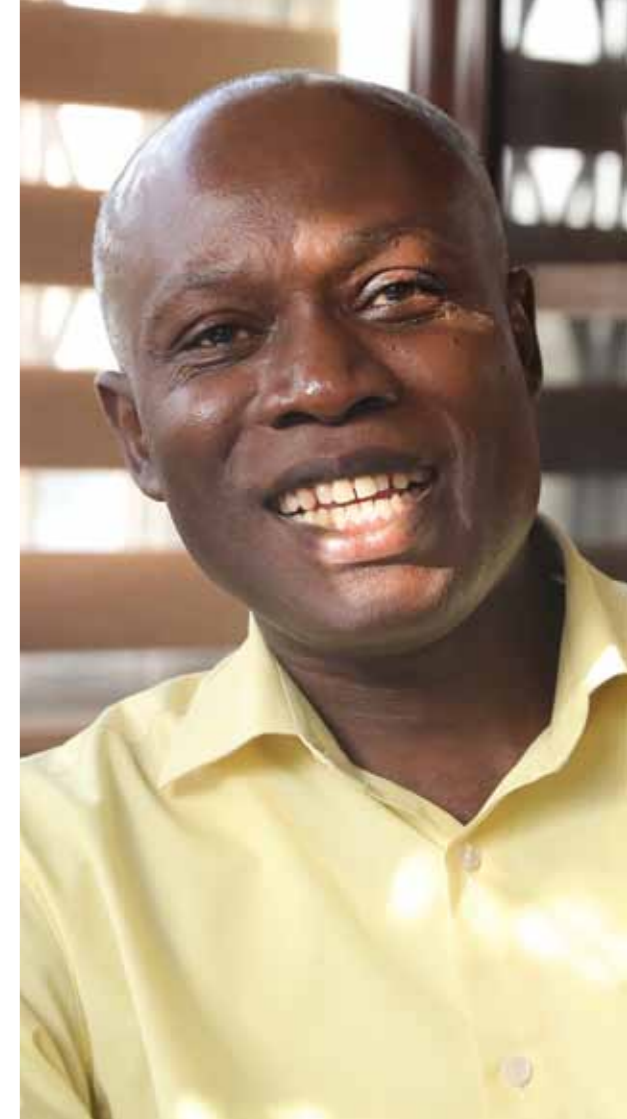
‘WE SHOULD INVOLVE THE LOCAL PEOPLE IN RESEARCH. THERE IS A LOT OF INDIGENOUS KNOWLEDGE IN GHANA AND WE HAVE TO USE IT IN OUR RESEARCH’

DR. EDWARD ANTWI

Public Health Physician, Reproductive and Child Health Department – Ghana Health Service Headquarters, Accra.

Research area: Hypertensive disorders in pregnancy, with focus on gestational hypertension, preeclampsia and prediction models.

‘Enrolling in the PhD programme at Utrecht University/ Julius Global Health has given me a broader view of things in my field of work’





‘We already have a daughter and now a boy!
A dream of every parent. I am so
proud of my wife.

We had antenatal care in a private clinic
and have a lot of faith in the doctor that we
consulted there.

Fortunately, we can afford private care,
we always choose for safety. I’m very involved in the
pregnancy and delivery of my wife.

I was there at every appointment.

Just to support her.’

KRISS (36)

‘Some **boys** have unprotected sex, some **girls** have unprotected sex.’

Therefore, our culture must **educate**, not judge, guide not condemn.’

DR. MERCY NUAMAH





James Town

A fishing community near KBTH



Ward KBTH



Ward KBTH

‘Nearly 45% of the deliveries in KBTH are by Caesarean Section (CS). This high percentage is caused by the fact that we are a tertiary referral center. We get the difficult cases.

I am doing research on different surgical methods of CS’; all methods have their advantages and disadvantages. My focus is to explore ways of reducing intra-abdominal adhesions from CS’. This will help to reduce the difficulties encountered in conducting the next CS. In addition, I am interested in helping to prevent unnecessary CS’.

We want to lower the percentage of CS’ at KBTH; for the benefit of the patient, by reducing cost and other health effects of Caesarean Sections.

My clinical work versus research work is 90/10. Sometimes it’s difficult to make time for research. There is a great need for seeing patients. The room is always full of women that are in need. I feel harassed when I am unable to help them. Another challenge to research is the funding you need to build research capacity. Besides being a doctor, you have to be a businessman to find opportunities for research and do networking to get access to funds. But it’s worth it. Research makes healthcare better and enhances efficiency in the healthcare delivery system. I want the best for my patients. I really want to make improvements. When I had to choose... maybe I’m more of a researcher.’

‘IT’S REWARDING THAT MY RESEARCH REALLY RESULTS IN BETTER PRACTICE. THAT MOTIVATES ME TO CARRY OUT MORE RESEARCH.’

DR. KWAKU ASAH-OPOKU

Obstetrician/Gynaecologist, Researcher KBTH

Research area: Ectopic pregnancies, Caesarian Sections (CS), family planning

‘Julius Global Health provides the tailor-made training program on epidemiology and maternal health research. It is a full-time program and it is worth it. It improves my research design skills and my analytical skills.’



A
Professional
EXPERIENCE

“Some pregnant women still have their own belief. If their feet are swollen, **they think they will deliver a baby boy**. They are not aware of the fact that swollen feet can be a symptom of high blood pressure or even worse, in combination with protein in the urine it could be preeclampsia. **They think that they are okay, while they are sick.** We have to explain a lot. It’s all about education.”

ANITA, Midwife

CARRYCARE



C/S

SURGEON:

Dr. Kwaku Asah-Opoku

PATIENT:

Bridget (30)

Admitted to the Hospital on Friday around 7 pm.
In labour with twins.

Operating Theatre, KBTH



Saturday around 1 pm

Bridget was moved from the ward to the labour room, because of the contractions she had. The time went by. ‘In the early afternoon, the contractions were strong, but I still did not dilate properly. It was very painful. The doctor decided for a Caesarean Section and I was glad that the torture of giving birth myself was over. I wanted to go through surgery.’

In the labour room, they prepared **Bridget** for the operation. An IV was placed in her hand to give her the fluids and medications she needed during surgery. A catheter was placed into Bridget’s bladder to remove urine.

Saturday 04.50 pm

Bridget was moved to the theatre. She was an emergency.

They connected Bridget to the monitor.

♥ BEEP, BEEP, BEEP

The sound of her heartbeat was clearly present. Her lips were saying something, she was mumbling a prayer.

‘I was a bit scared, but the team reassured me: ‘Don’t worry, we are taking care of you and your babies’.

♥ BEEP, BEEP, BEEP



- > ‘Is your name **Bridget?**’
- ‘Are you pregnant with twins?’
- > ‘Yes, I am.’
- > ‘Ok, just to check that you correspond with the case details we have.’
- > ‘You came yesterday in labour, and was admitted to our hospital, but the delivery wasn’t progressing. We decided together for a Caesarean Section.’
- > ‘Yes, I was exhausted.’
- > ‘I just read all the information out loud, so that everyone in this theatre is well informed.’

♥ BEEP, BEEP, BEEP

05.10 pm

The nurse anaesthetist gave **Bridget** a spinal anaesthesia, which numbed the lower half of her body and allowed her to be awake when her babies were born. He took everything he needed out of a plastic bag. In Ghana, patients themselves, have to bring all the medications and materials needed for a C-Section or another treatment in the hospital. The doctor gives the prescriptions and patients or family members have to go to the pharmacy to collect and buy everything.

‘Do you feel this’, the anaesthetist asked when he palpated her abdominal. The bottom left side? Right side?’

He and his assistant stayed near **Bridget’s** head to control the monitor and to write down the data in her status.



Every now and then, he touched her arm or said some words to comfort **Bridget**.

‘Happy birthday to you, happy birthday to you, happy birthday, happy birthday...’ In the hallway, the staff celebrated someone’s birthday.

♥ **BEEP, BEEP, BEEP**

Dr. Asah-Opoku, the assistants and nurses prepared themselves. ‘All the best and congratulations in advance’, **Dr. Asah-Opoku** said.

Two nurses stood near the door to take care of the babies. Two trolley bassinets covered with blankets were placed next to the surgery table.

‘Anaesthesia, is everything OK? No difficulties? Aspiration?’ ‘Gynaecology, are special investigations necessary? No, please’

‘Let’s start the procedure.’

05.20 pm

Dr. Asah-Opoku started to make the transverse incision, low enough down on the pelvis. He coagulated the bleeding subcutaneous vessels. The smoke produced was suctioned by the scrub nurse. With a steady hand **Dr Asah-Opoku** made the incision. First in the skin, then in the abdominal wall. Calm, focused and precise. After he opened the abdomen, he made an incision in the uterus. Typically, a side-to-side transverse cut was made, which ruptured the amniotic sac surrounding the babies.



05.27 pm

Once this protective membrane was ruptured, **Dr. Asah-Opoku** removed the first baby from the uterus, cut the umbilical cord and removed the placenta. A bright cry filled the space... the first baby boy was born. Quickly, the nurses examined him and showed the baby to **Bridget**.
“Your firstborn Bridget, he makes a lot of noise. That’s good!”

05.29 pm

Soon afterwards, **Dr. Asah-Opoku**, searched with his hand in the uterus for the second baby. He took the little feet, turned his wrist and with a quick move he delivered the second baby, another boy. This boy needed a little help, but after rubbing his back, he started to cry too. **•Bridget, this is your second son•**.

♥ BEEP, BEEP, BEEP



05.31 pm

When the delivery and afterbirth are completed, the cuts made to the mother's uterus are repaired with stitches, which will eventually dissolve under the skin.

Dr. Asah-Opoku is doing research on C-Sections. "Each method has its advantages and disadvantages. It's my aim to find the best method that enables women to deliver safely the next time. The most important thing about delivering naturally after a C-Section is to prevent a rupture of the uterus. The strength of the scar of the C-Section on the uterus has to be as strong as possible. Research has proved that stitching in different layers provides a stronger scar than stitching with only one layer."



The uterus was exteriorized to be able to examine it fully after stitching the uterine cut. However, it can also be sutured while still in the abdomen.

Dr Asah-Opoku also intends to find out whether some steps in the current Caesarean Section will be linked to more adhesion formation in the subsequent Caesarean Section.

Dr. Asah-Opoku:

"Do you have some Green Armitage clamps? Another one, please And the last one."

THANKS.

♥ **BEEP, BEEP, BEEP**

"Still clamps needed. More clamps... another stitch scissor, please. And a smaller tweezer. And let's cut the last one."

05.54 pm

‘Ok, we are done.
It is complete.’
Thank you all very, very much.

‘**Bridget**, you saw both boys?
What about their behaviour?
The first one was very loud.’
‘he is like me’, said
Bridget, ‘What a confession,
I thought you would say it is
the dad, since he is not here
now.’

Congratulations,
everything
went well.

Ward KBTH

Bridget with her two sons a few days later





‘MY OWN STORY OPENS UP PEOPLE. I AM A MOTHER TOO. AS A DOCTOR, I AM ONE OF THEM.’

DR. HANNAH BROWN-AMOAKOH

School of Public Health University of Ghana/
Legon – Department of Epidemiology

Research area: Mobile-Health (mHealth)

‘The Julius Center is a great place to be. The place is filled with many professionals who are ready to assist you with your work and even help you find your way around the Netherlands!’

‘I’m a medical doctor by training. Along the way I discovered that my interest moved to public health. I am reaching out to many people at the same time, that’s where I can make a difference. I am involved in mHealth, organizing outreach programs to provide service within the communities. mHealth presents one of the potential solutions to maximize health worker impact and efficiency on pregnant women in remote areas. We support health workers with a mobile phone app(lication). It was a big challenge to translate the bulky protocol-texts in understandable, complete and consistent text for the mHealth app. The pilot in Greater Accra Region was a success. The health workers in Accra were sad that the test phase had to be done in the Eastern Region.

My fieldwork is in the Eastern Region. The communities have a very strong social system. For example, volunteers assist health workers to commute the pregnant women from one place to another. By taxi, boot, canoes, cars... they use whatever is available. The biggest question for pregnant Ghanaian women in remote areas is how fast can they get skilled medical aid when needed. I feel great to contribute to mHealth. The research program can really save lives.’

‘Since the old days,
**PARENTS PUT
BEADS**

on the waist of a baby girl in order
to shape her waist.
It will stay there during childhood.’

SOLOMON /
fieldworker Willows International





Atiwa-district Moseaso

‘I am responsible for all the **women** in our community. They consult me with their **problems**, feminine things, and seek advise about children. I reach out to the women in the community, educate them and **organize forums** to educate them about teenage pregnancy. Elders in our community assist me. I see all the women in my community **as my own daughters**. I have to take care of them.’

NANA ADU TWUMWAA II, QUEEN MOTHER MOSEASO



The Greater Accra Regional Hospital

- formerly called

Ridge Hospital -

has engaged in a number of research projects in maternal and newborn care. These projects center mainly on the use of quality improvement methodologies to improve maternal and newborn health outcomes, the impact of the introduction of obstetric triage in delivery outcomes and the impact of leadership development on clinical outcomes.

Other research projects recently initiated at the Ridge include the use of WhatsApp communications technology to improve maternal and newborn referrals and the implementation of evidence based interventions to reduce maternal and newborn sepsis.

Several research publications has been turned out as the institutions contribution to the body of knowledge.



Noguchi Memorial Institute for Medical Research,

although largely known for its work in infectious diseases, has been conducting substantial work on maternal health, as illustrated by four research projects.

The 'The Maternal Referral project', examines the processes of maternal referrals from primary level facilities to district hospitals in three districts in the Greater Accra Region, and how improving interfacility communication about these referrals affect the processes and outcome of care. Another project links infectious diseases to maternal health, and looks at immunology in malaria in pregnancy.

The 'Initiative for Maternal Mortality Program Assessment' evaluated the free maternal delivery policy introduced in Ghana.

The 'Birth Deaths Registration project' used community based volunteers to improve birth and deaths registry.

The efforts of research, made to provide various interventions, by health workers, managers, governments and partners over the years, are yielding results manifesting in improved outcomes.





Ward KBTH

**‘THIS GIRL
IS ALONE,**

she is from another region,
we haven’t seen **any relatives
or friends** of her.

**We just don’t know
anything about her
background.’**

NAMA, nurse

Facts and figures:

Deliveries at the Obstetric department KBTH

Mode of delivery 2016

- Total deliveries : 9,294
- Vaginal deliveries: 4,962
- Caesarean Sections 4,332.
47.3% of all deliveries

Daily average number of C-Sections: 12



‘For me it’s key to share my knowledge as a consultant and a lecturer. The medical world is not only about saving lives, but also about politics, about risk management and organizational issues, also minimizing the negative effects of politics in health care. In all these areas research is the foundation of the Ghana Health Service.

Results have to be presented to the doctors, but for a real contribution you have to bring it further. Bringing research to practice requires training workshops for all referral institutions in the catchment areas of the practice. Yesterday we had a good example of this. There was a presentation of research on ectopic pregnancy. The big issue was the late recognition of it. The way forward is to design a training workshop to referral institutions and to train them on early recognition of ectopic pregnancy. We have to reexamine our post graduate education curriculum and adopt what best suits our environment and help us produce competent post graduates.

I’m proud of the Post-Graduate speciality training for Obstetrics and Gynaecology. It is a great achievement by our nation. To provide this PG-training in our own country, prevents ambitious doctors to go abroad, resulting in loss of our doctors to other countries. Now, we can keep the knowledge in Ghana. Despite the fact that the salaries are low, the job satisfaction is high here and you can show much more creativity. You have to work with what is available. Me too, I stayed in England for a long time. 17 Years ago, I decided to come home. My contribution here in Ghana is much more valuable than in a Western country.’

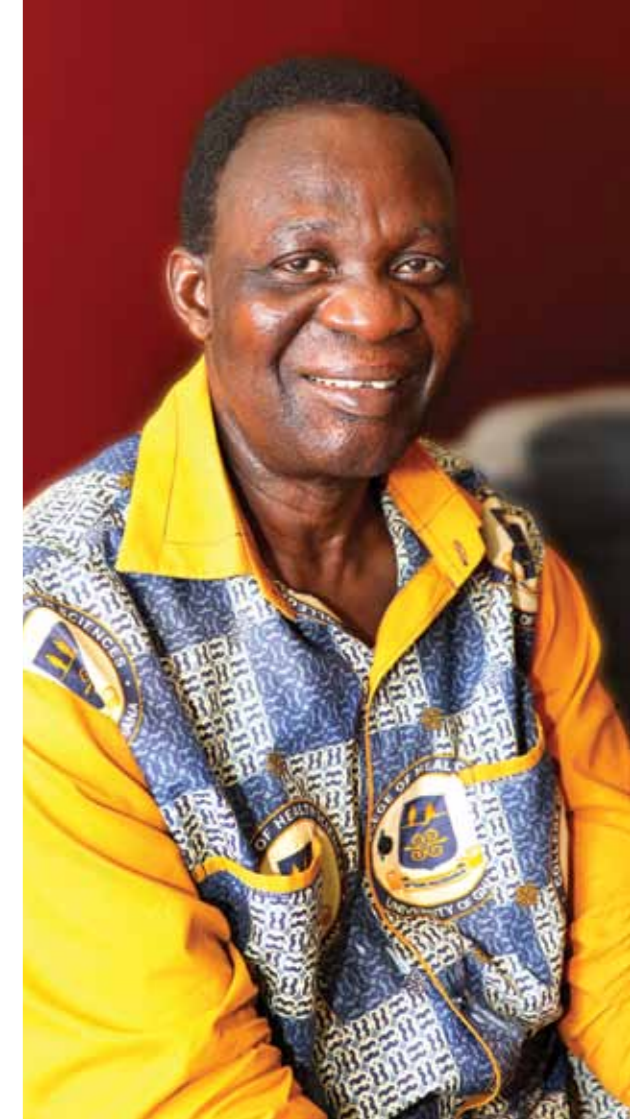
‘IT’S A GREAT
ACHIEVEMENT TO
RETAIN OUR
SPECIALISTS IN
GHANA.’

DR. NELSON DAMALE

Obstetrician/Gynaecologist KBTH, Senior lecturer University of Ghana Medical School

Research area: Over the past 17 years I tried to go mainly into teaching and service delivery and looking at maternal health morbidity and mortality.

‘**Collaboration with the Julius Center is an adventure. They help us to get a well-trained staff here. They train other residents and create a multiplier for us.**’



‘It is the policy of the Ministry of Health of Ghana that every pregnancy should have a **positive result** - a healthy woman and a healthy child. The biggest challenge is the lack of funds and resources but **we can do more with what we have** by minimising or eliminating wastage. We can achieve this through **better use of supplies, equipment and drugs** and through the redistribution of midwives and other human resources from over-staffed areas to understaffed areas.’

NANA ENYIMAYEW

Chairman, Faculty of Public Health, Ghana College of Physicians





‘I’m aware of family planning and I go every three months **for a shot.** I tell all the women around me to **do the same.**

I feel that I have to convince them, because there are **a lot of rumors** around the hormones of the contraceptives. **I am the example** that they won’t harm you!’

JOSEPHINE (28)

2ND FLOOR
LABOUR WML





An ACCIDENTAL ENCOUNTER

A young woman and her husband walked through the corridor with their newborn baby.

Just discharged.

They seemed insecure. There was an elderly wise woman, a mother and a grandmother herself. After a brief interaction, the mother of the newborn handed her her child.

The elder woman rewrapped the baby, just tight and neat.

The newborn family looked at her in gratitude and walked away.

Two mothers, bound in silence.

CARRYCARE



Ward KBTH



Neonatal Intensive Care Unit (NICU)

Greater Accra Regional Hospital (formerly known as Ridge Hospital)



Ward Greater Accra Regional Hospital

‘I’m proud of the transformation that has taken place in this hospital. When I came, the total delivery was 2,000 and it was an obscure hospital. Nobody wanted to refer a case to Ridge. Nowadays, we have 11,000 deliveries a year, the building is completely renovated and enables modern maternal and newborn health and it has become a popular referring center.

I want this organization to grow, to be one of the best. In case of money to make and service to deliver. ’

‘My strong passion for the work and the Grace of God who has given me the strength, keeps me going.’

DR. EMMANUEL SROFENYOH,

Medical Director and Gynaecologist of the newly refurbished Greater Accra Regional Hospital (formerly known as Ridge Hospital)

Research area: Hypertensive disorders of pregnancy and quality of care improvement



‘I just had a child and I decided to take
contraceptives.

I went to the Reproductive Health Unit of the hospital for an injection of Depo Provera.

**I missed the
next shot** and got pregnant.

I wasn't ready for a second child
and got an abortion in the health facility.

I think an IUD is better for me.’

CHARLOTTE (17)



‘If you **don’t have**
a child as a woman,
you **don’t count**
in our society.
The **pressure** to become
a mother is **enormous.**’

ISHMAEL / fieldworker Willows International





James Town
A fishing community near KBTH



‘No hospital can run
without **nurses.**
So, we (managers)
work hard and
try to enable them to work.

The **results** of the hospital
depend **on them.**’

DR. EMMANUEL SROFENYOH



‘I am carrying out research on adolescents, with a focus on the younger category **aged 10-14 years**. It is a very crucial age in terms of discovering their sexuality and gender roles. More importantly, they **struggle with low self-esteem** and the influence of peer pressure is enormous. It is a very vulnerable group, coupled with that is the neglect of their health issues by their parents and society as a whole. Age-appropriate education and counselling should start at age 10-14 years. **I am passionate about family size**, the number of children a couple give birth to. Unregulated and unlimited number of children by a couple is a great threat to society’

KOJO PIETERSON (Gynaecologist/Researcher)



‘SMALL INTERVENTIONS
CAN MAKE A LARGE
DIFFERENCE IN
MATERNAL HEALTH
OUTCOME IN SICKLE
CELL DISEASE.’

DR. SAMUEL A OPPONG

Obstetrician/Gynaecologist, KBTH

Research area: Sickle Cell Disease and pregnancy

‘Maternal and infant mortality rates are high in women with sickle cell disease (SCD) who live in low-resource settings. This was the situation at Korle Bu Teaching hospital (KBTH) for many years. For the past ten years, I dedicated my life to the care and research into the problem of high maternal and perinatal mortality in pregnant women with SCD in Ghana.

We first revived a special ‘SCD-obstetric clinic’ at KBTH for all pregnant SCD patients. But while patient care improved overall, mortality rates did not decline. In 2015, we created a comprehensive multi-disciplinary care model that included obstetricians, hematologists, pulmonologists, midwives and public health nurses. This team implemented protocols such as joint obstetric-haematology clinics, joint review of emergency cases, simple blood transfusion, better management of acute pain episodes and coordinated care for in-patients. Within the first 18 months of this programme, we saw a nearly 90% reduction in maternal mortality and over 60% reduction in perinatal mortality. This phenomenal achievement was reported in the December 2016 edition of Forbes magazine.

What this tells us is that the solutions to our problems are not always far-fetched: with better organization, proper deployment of local resources and a little bit of ingenuity, we can address most of our pressing health needs. Because sickle cell disease is a very common condition in Ghana and there are many pregnant women with SCD, we are in a better position to research this and provide solutions for the rest of the world. Solutions to big problems are close to us. That makes me feel humble.’



Out Patients Department KBTH

‘Before going to the hospital to deliver, my husband **helped** me to cope with the contractions... breathe in, breathe out. **He is very supportive.** We live together as a **happy family.**’



Fathers in child care



Girls, our future

‘It is difficult to find a woman and love is not always involved;

**maybe 40% love
and 60% money.**

It’s about supporting them.

When a girl finds another guy that can support her more,
she is gone. **I was lucky.**

I have a beautiful wife and a lovely child.’

LAUD (22)





Atiwa-district Moseaso

‘We keep our neighbourhood clean. **Every Wednesday and Sunday** you have to clean in and around your house. That is one of **our community rules**. If not, you will be fined.’

NANA ADU TWUMWAA II, QUEEN MOTHER MOSEASO

‘Our goal is to increase women’s, and their partners', **knowledge of reproductive health issues** and encourage the use of quality RH services. Our volunteers serve over 32,000 women in the poor, coastal communities surrounding KBTH. Bringing together traditional chiefs, faith-based leaders, local community-based organizations, elected officials and the health service providers truly **strengthens our impact.**

By increasing access to quality **family planning and safe abortion services** we are working with our partners to **mitigate maternal mortality.**’

VALERIE GUEYE / Willows International



‘I am Kwame Adu-Bonsaffoh, a native of a small village in Ashanti Region of Ghana, eighth in a row of eleven. Growing out from the village, through to the University of Ghana has only been by hand of God. My life-educated parents made me aware of the fact that there are always lessons to be learned at anytime, anywhere and that there is no rush in life. Inspiration comes from everyone and everywhere. I am motivated to work hard and I feel blessed to have strong multi-tasking skills. I always want to make my own plan and I believe in myself and God in all things. I am confident that I can achieve anything I wish for. My guiding principle: ‘You get what you want.’

Research makes me understand things better, the what’s and why’s. It leads to redefining the truth beyond one’s opinion, and it is about improving things for the future generation. I always want to contribute to improving maternal health via dedicated clinical work and research. I don’t accept that mothers die for whatever reason, especially not in pregnancy or childbirth.

I’m proud of the fact that I am who I am now. I am always focused on learning new ideas and the journey has not been easy at all. As a researcher, lecturer and gynaecologist/obstetrician, I won’t do anything to undermine this hard-earned reputation. ‘God, my everything.’

‘RESEARCH IS THE KEY TO INSTITUTIONAL ADVANCEMENT IN ANY COUNTRY. I ACTIVELY COMBINE CLINICAL PRACTICE WITH TEACHING AND RESEARCH TO SUPPORT MOTHER GHANA.’

DR. KWAME ADU-BONSAFFOH

Gynaecologist/Obstetrician, Researcher, Lecturer at the School of Medicine and Dentistry, University of Ghana

Research area: Maternal hypertension/vascular complications of preeclampsia, maternal near miss and Reproductive/Endocrine Physiology.

‘Collaboration with UMCU/Julius Global Health is a great opportunity which has broaden my horizon. I obtained the Global Health Scholarship, which gives me the opportunity to pursue my PhD in Clinical Epidemiology.’





Street art in James Town

We **acknowledge** the valuable contribution **of many people,** including:

Kwame Adu-Bonsaffoh, Irene Agyepong, Mary Amoakoh-Coleman, Gladys Ansong, Edward Antwi, Kwaku Asah-Opoku, Theophilus Ayugane, Kitty Bloemenkamp, Joyce Browne, Hannah Brown Amoakoh, Nelson Damale, Nana Enyimayew, Arie Franx, Diederick Grobbee, Valerie Gueye, Jan van der Horst, Kerstin Klipstein-Grobusch, Solomon Kweku Asante, Ishmael Nii Addo, Mercy Nuamah, Vicky Okine, Samuel Oppong, Kojo Pieteron, Marcus Rijken, Prof. Fred Sai, Mustapha Salifu, Ali Samba, Petra Smeekes, Emmanuel Srofenyoh, Magdalena Toro, Cuno Uiterwaal.
All dedicated and committed employees and pregnant women of KBTH and Greater Accra Regional Hospital (formerly known as Ridge Hospital).

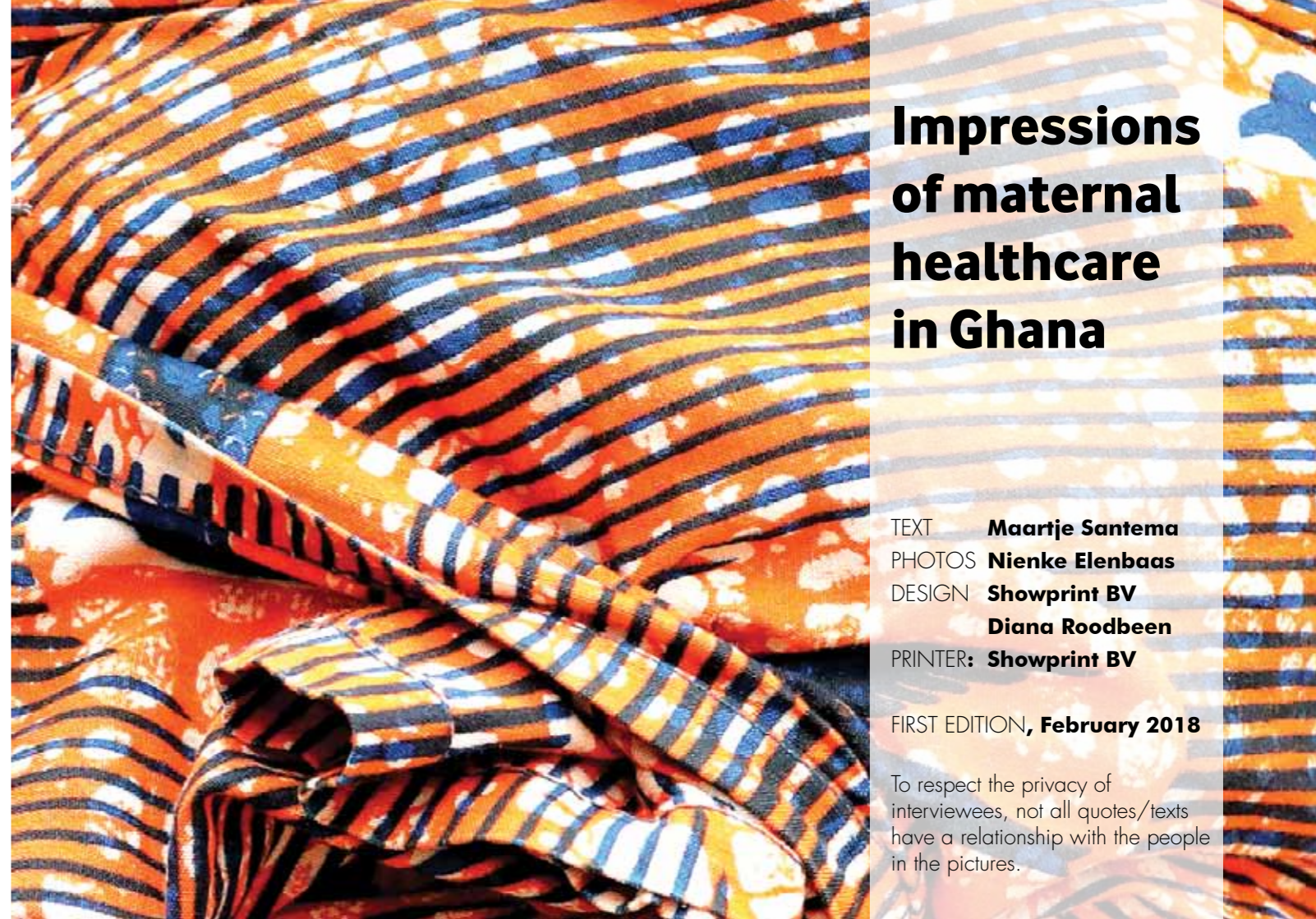
Photos and stories generated from the communities surrounding KBTH in Accra were possible through collaboration with local volunteers working with Willows International, a non-profit US based organization and partner in the Reducing Maternal Mortality & Morbidity (R3M) program.

Impressions of maternal healthcare in Ghana

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To respect the privacy of interviewees, not all quotes/texts have a relationship with the people in the pictures.



CARRYCARE

CARRYCARE is a book of hope, love and inspiration for people involved in maternal and neonatal healthcare and research in Ghana.

This book was developed in a collaboration between the University Medical Center Utrecht (the Netherlands), the University of Ghana, and Korle Bu Teaching Hospital.



UMC Utrecht
Julius Centrum



UNIVERSITY OF GHANA
COLLEGE OF HEALTH SCIENCES

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