



PHILIPS

Healthcare Africa



Community Care Services

Strengthening primary and secondary care,
enabling healthier communities

A close-up photograph showing a healthcare worker in a white coat administering a vaccine to a baby. The baby is being held by a woman, and the worker is using a syringe to inject the vaccine into the baby's arm. The scene is set in a clinical or hospital environment, with the worker's hands and the baby's face being the primary focus. The text is overlaid on the upper left portion of the image.

Philips improves people's lives through meaningful innovation. **We are deeply committed to supporting the transformation of healthcare in Africa**

Better access to knowledge and resources for care givers in Africa

We are deeply committed to supporting the transformation of healthcare in Africa. Our experience in many countries has taught us that local ownership and responsibility are key prerequisites for durable success. Thus, our commitment goes far beyond short-term commercial interests. Through projects in several countries, we have shown our willingness to invest in long-term results, to take and share risk, and to learn quickly in order to develop the best and most cost-effective solutions. We seek to partner with the right stakeholders, to make quality healthcare available and affordable to people across the entire socio-economic spectrum and care continuum.

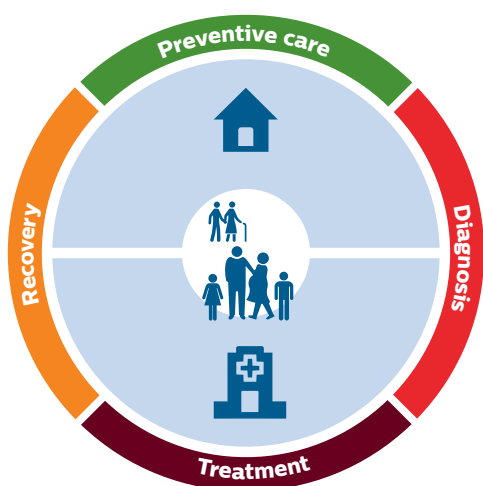


Figure 1

The healthcare continuum.

For an effective and comprehensive approach to healthcare, it is essential to understand and address stakeholder needs and issues across the healthcare continuum. The healthcare continuum describes all the health states of a person (from preventive healthy living to diagnosis, treatment and recovery) in the relevant contexts.

“Access to healthcare is a key driver of sustainable socio-economic development. In the last decade, there has been a rise in economic prosperity and domestic consumption in many countries in Africa. Despite tremendous progress, there is still a substantial unfulfilled need for health care that is affordable, equitable and efficiently managed to address the needs of all citizens. Many African countries may not be able to reach the Millennium Development Goals for 2015 such as reducing child mortality by two thirds and maternal mortality by three quarters. The scale and complexity of this challenge are difficult for any stakeholder to tackle alone. By joining forces, we can combine our know-how and expertise in the fields of healthcare, technology, information systems and business processes with your insight and knowledge of local needs and priorities.”

JJ van Dongen, CEO Philips Africa

Our **three-step** strategy

Philips has developed a **three-step strategy** to work with partners and other stakeholders towards improving access to effective healthcare systems in Africa:

1. Strengthening the backbone
2. Optimizing the flow
3. Extending the reach

Figure 2 – Improving the healthcare system. The three-step strategy provides a framework to optimize all the care nodes, workflows and patient flows in healthcare system.



Step 1

Strengthen the **backbone** of the healthcare system

A substantial contribution to realizing Philips three-step strategy for healthcare Africa comes from our 'Community Care Services'. The Philips Community Care Services focus on enabling effective care at a local level by making optimal use of scarce resources, introducing coaching and trainings, and providing leapfrogging yet cost-effective technologies. All this allows care givers to work more effectively to save lives and build healthier communities, while saving costs via increased efficiency.

The first step is to ensure that the backbone of healthcare facilities in any referral system is strengthened to function efficiently, reliably and sustainably. This may require facility infrastructure upgrades; equipment and technology to fill crucial gaps in diagnosis, treatment and management; and training staff and specialists to provide quality care.

Community Care Services build consortia with local and international partners to improve primary and secondary care, and to create healthier communities in a number of different African countries. The approach leverages what exists already and builds on what is functioning well. It starts with a thorough assessment in cooperation with local stakeholders to identify gaps for improvement; then adds technology, tools and procedures and training to close those gaps. Community Care Services use a pragmatic approach to strengthen the community healthcare

backbone up to a secondary care level, evaluating each level of care and the coordination between them (Figure 2).

Primary and secondary care facilities often need life-saving equipment for monitoring and treatment, as well as capacity building and tools to develop the skills and workflow efficiency of healthcare workers and specialists. Frequently, emergency transport is a missing link, yet ambulatory services with cost-effective monitoring and patient stabilization devices can have a significant impact on saving lives. They are an essential part of making emergency care accessible to the community.

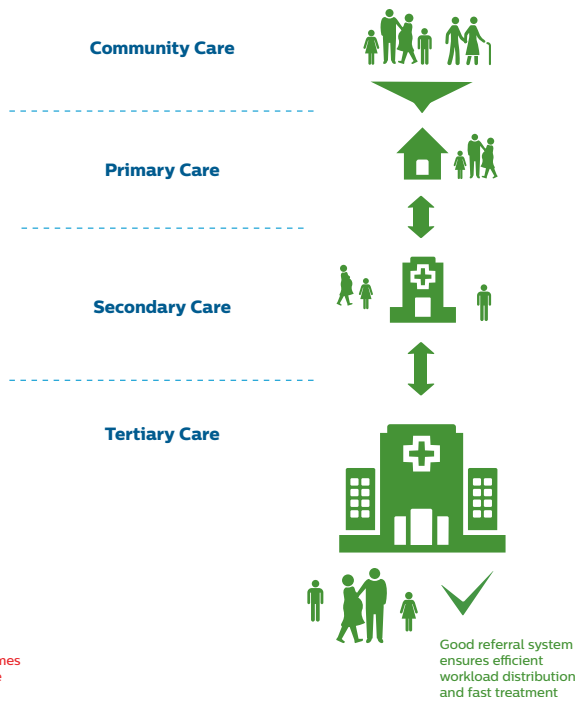
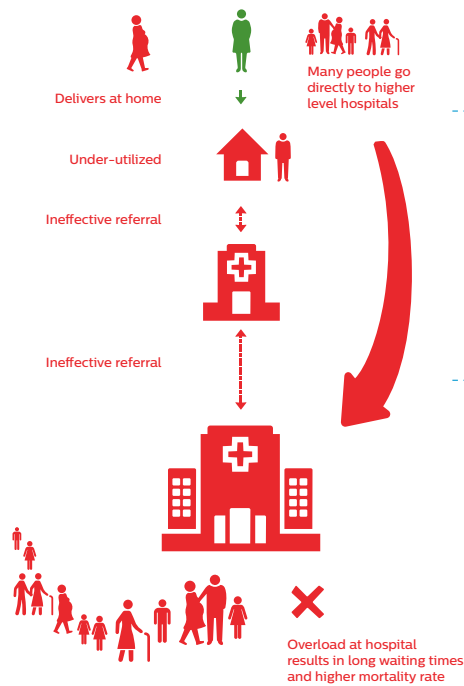


Figure 3
The healthcare referral system. Optimizing the patient referral system is a key challenge in any care system to ensure cost-effective care provision.

Step 2

Optimize the **flow**

Optimizing the treatment flow is key to a well-functioning, integrated healthcare system. Thus, the second step is to balance the workload across the care continuum. Tertiary and secondary care facilities are frequently overloaded due to people bypassing primary care centers and going directly to these hospitals – often because primary care facilities are inadequately equipped or not trusted. The result is a congested healthcare system, a waste of scarce resources, and higher mortality rates. Primary care facilities equipped with our proven e-Health systems can offer an accessible, affordable basic level of care and act as effective referral points to re-distribute the patient workflow.

Our Community Care Services have been implemented in a number of locations. We train and leverage Community Health Workers (CHWs) to enhance the referral system by providing services such as basic health diagnostics, data capturing, awareness creation and referral in

the homes of people living in the community. CHWs leverage generic infrastructure and affordable devices such as mobile phones. They are equipped with basic, robust diagnostic devices that can be carried in a backpack. Primary care facilities are equipped with more sensitive and sophisticated – but still affordable – diagnostic and monitoring devices. Healthcare workers in these facilities or CHWs in the field can then upload the diagnostic results to a centralized server that performs risk stratification and referral to the next level of care as appropriate. Our aim is to increase efficiency and utilization of primary and secondary care and to reduce mortality.

Step 3

Extend the **reach**

The availability of qualified professional healthcare workers throughout the care continuum is essential to delivering quality care to everyone, at all socio-economic levels. However, they are frequently a scarce resource. Hence, we focus on smart task-sharing – freeing up the most experienced healthcare workers for specialized tasks. Our medical devices, coaching and continuous training support this without compromising safety or quality. Additionally, our e-Health modules extend the reach of doctors and specialists by enabling remote consultancy and treatment without costly and time-consuming travel.

As known and trusted members of communities, CHWs / volunteers can be trained and equipped to provide basic diagnostic services, as well as awareness creation and referral services in public spaces or people's homes. They can play a key role in reducing mother and child mortality by guiding women to safer deliveries in care facilities instead of home delivery.

What can we offer?

Philips has developed an integrated portfolio of complementary solutions, consisting of five highly modular solution packages designed to effectively address our three strategies. Each of the five solution packages contains a modular combination of technology applications and services which can be selected to suit the requirements of different situations.

Our Community Care Services leverage this integrated solution portfolio to strengthen primary and secondary care and enable healthier communities.

Assessment

We identify priorities together with local stakeholders on different levels to formulate clear recommendations, and a plan for the development and implementation of effective and cost-efficient solutions.

All the modules have been designed to create measurable results for continuous improvement of service quality, operational efficiency and capability development.



1. Technology

Philips has extensive experience in cutting-edge technologies that enable effective and affordable healthcare. The Philips Community Care Services leverage this experience to provide cost-effective solutions for upgrading primary and secondary care centers, so they can offer efficient, reliable and affordable services to their communities. Depending on local needs, solutions may include refrigeration for storing vaccines; ultrasound and spot-check monitors for patient monitoring; diagnostics and triage; respiratory support; baby warmers for premature births and a full diagnostic lab for disease identification. The Philips technology portfolio can also extend healthcare services into people's homes by equipping CHWs with mobile diagnostic tools. Plus it provides a comprehensive suite of emergency equipment for ambulatory services.



2. Operational support

Our Community Care Services have full access to operational support from Philips for maintenance and upgrading. We can provide a combination of on-site and remote tracking via e-Health systems. Some of the sophisticated equipment in primary and secondary care facilities can be monitored remotely via sensors to maximize reliability, up-time and availability of services. Often, predictive analysis of sensor data can warn of impending failure before it happens allowing for proactive, preemptive maintenance. This data can also help with planning of long-term upgrades. It ensures that the primary and secondary health care facilities can maintain the highest levels of reliability.

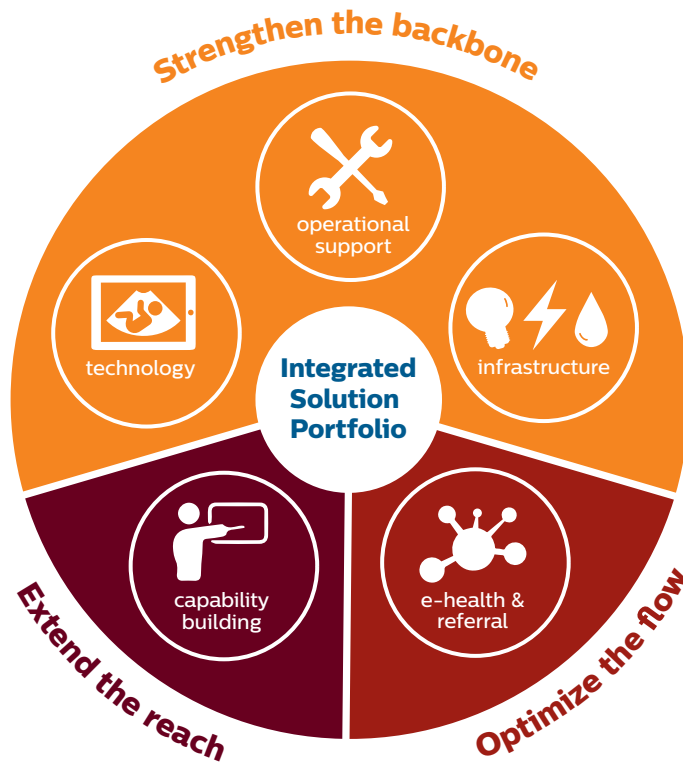


Figure 4
Our integrated solution portfolio of modular packages.
 Our modular solution packages ensure flexibility, cost-effectiveness and speed of delivery.



3. Infrastructure

Gaps in infrastructure can limit a facility's efficiency and its utilization. The Philips Community Care Services address these crucial gaps, for instance, by improving or extending existing infrastructure, or designing and building complete facilities and interiors that allow better workflows and staff performance. In low resource settings where reliable access to infrastructure is an issue, we can include a smart solar power unit that acts as a reliable clean energy supply in both on and off-grid settings. We can integrate cost-saving indoor and outdoor LED lighting solutions with sensors for automatic energy saving when spaces are not in use. Plus, we can implement environmentally-friendly medical waste processing.



4. E-Health & referral

This package offers solutions for advanced logistics and planning, statistics and prediction, and workflow sharing. Secure cloud-based systems track workflow and information sharing between hospital departments and even different care facilities. Data gathering and analysis help avoid bottlenecks by identifying points of intervention for improved service delivery and patient experiences. They can also track care-giver performance and outcomes, and a dedicated toolkit enables doctors to provide remote care. E-Health tools support effective referrals, creating an efficient flow of patients from home to primary care centers, and between primary and secondary care. Efficient referrals rely both on electronic scheduling and data sharing and on the ability of care givers at different levels to make sound judgments. Thus, empowering CHWs with affordable tools for home patient registration and diagnosis of key conditions can save costs and reduce bottlenecks.



5. Capability building

Effective health service delivery depends on behavioral change, motivation and cooperation at every level. Our capability building kits support these goals. Basic coaching and trainings for care facility staff cover topics such as: efficient coordination, hospital hygiene, ethics, patient-centric service, resource saving, etc. Basic community coaching service modules empower CHWs to teach communities about sanitation, disease prevention and nutrition. Facility and community health workers can also improve their capabilities, motivation and career opportunities through e-learning based on accredited curricula. In the community, our coaching builds capacity and resilience through courses for mothers and adolescents on preventive, healthier living. Advanced modules improve clinical capacity for all care givers (from doctors and nurses to ambulance workers) through a recognized certification scheme – equipping healthcare centers to deal better with occasional staff shortages through greater task-sharing.

Project example

Achieving joint goals by **improving emergency care and referrals system**



Reducing maternal and infant mortality
in South Africa



In 2009, there were 333 maternal deaths per 100 000 new born babies in South Africa*. Most of these deaths could have been avoided with greater access to healthcare, early risk identification and more efficient emergency care. Fast growing townships like Kayalitsha, in the Western Cape, face such issues daily. This results in an increasing demand for healthcare that causes challenges for nearby Tygerberg Hospital, the biggest tertiary hospital in Cape Town.

In 2012, Philips and Tygerberg Hospital initiated a capacity building pilot project for management of high-risk pregnancies and complications in childbirth at the Obstetric Critical Care Unit (OCCU), and to improve throughput in the maternity department. Philips customized a 'step down unit': an Emergency Obstetrical Care unit (EmONC), with patient and fetal monitoring, ultrasound and ventilation devices for resuscitation, an e-health system, training and continuous education for medical staff, and equipment maintenance.

This was a first step to develop, test and optimize a service that could later be deployed in secondary and primary care level settings, to reduce maternal and infant mortality through delivering high quality, affordable care. This service relies on efficient referrals via a network of local and national partnerships, and effective interventions at lower levels of healthcare delivery. Active deployments of the service include the creation of a 2-bed EmONC at the Worcester Hospital (secondary care) and improvement of primary care referral services from the Ceres Hospital, supported by trained CHWs. The Gauteng Department of Health, Philips and University of Johannesburg have also jointly created specialized Mother & Child Care Ambulances and trained 'specialist retrieval teams' that direct critical patients to the right level of care.

“The results of the pilot at Tygerberg have been extremely positive. Together with Philips, we have tested a blue-print of the ideal obstetric critical care unit for all levels of hospitals in South Africa.”

–
Dr Eduard Langenegger,
Head of the Obstetric Critical Care Unit at Tygerberg

Philips and Tygerberg Hospital EmONC pilot project: measurable outcomes

Increased emergency and preventive care capacity at the Tygerberg Hospital have led to earlier interventions and better outcomes, including:

- Sustained reduction in mortality rates from 6% to 0% over the 18 month test period through creation of the EmONC and training of personnel
- Shorter stays, reducing bed occupancy from 95% to 70% in the OCCU through improved patient flow in the maternity department.

* Bradshaw et al. 2012. South African Journal of Obstetrics and Gynaecology. Vol 18, No 2.



We would like to work together to develop **resilient healthcare systems that can help Africa on its path to building a healthy future**

The **benefits** of partnering with us

Philips has a proven track record and expertise in building long-term public-private partnerships to transform healthcare systems. Our modular and flexible portfolio of highly effective products and services covers the entire healthcare continuum, supporting and enabling:

- Awareness and preventive care, encouraging healthier living in communities
- Early referral through basic diagnosis at home, and faster diagnostics in healthcare centers
- Continuous training, coaching and development of staff and other care stakeholders
- Well-equipped healthcare centers, with cost-effective treatment and efficient patient flows and workflows
- Monitoring that minimizes recovery periods in care centers and allows safe recovery at home
- Cost-effective infrastructure upgrades and operational support

Our commitment is to building local capacity and sound business models that result in resilient health systems. With a legacy of over 100 years, Philips is one of the world's most trusted brands for innovation and quality. We do not only pursue profit, but strive for thought leadership, excellence and making a meaningful difference.

For more information

To further explore possibilities for cooperation towards healthcare solutions that work in Africa, please contact

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