



## Taking Kidney Care to the People: How Murang'a County's Mobile Dialysis Truck is tackling a Silent Epidemic

County:	Murang'a		
Sector/s:	Health	Sub-sector/Theme:	Non-Communicable Diseases (NCDs)
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Target Audience:	Counties, Development Partners, Health Sector Stakeholders, Policy Makers		
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### Introduction:

Research conducted by Murang'a County Health Department in partnership with Jomo Kenyatta University of Agriculture and Technology (JKUAT) revealed a growing crisis of chronic kidney disease affecting the region. The joint study revealed that 15% of Murang'a County's adult population now shows signs of kidney impairment, with cases increasing by 22% over the past three years according to hospital records. This silent epidemic has created impossible choices for patients across the County's rural sub-counties, where only four dialysis machines serve over 1 million residents. The severe shortage forces patients to either endure waitlists for months at Murang'a Level 5 Hospital and Kigumo Sub-county Hospital, trips that cost families nearly 60% of their average monthly income in transportation and treatment fees. Many vulnerable patients, particularly from areas like Kandara and Gatanga, simply abandon treatment altogether, with health centers reporting a 35% dropout rate among diagnosed cases.

This situation impelled Murang'a County to partner with health technology provider Benacare and JKUAT's biomedical engineering experts to develop an innovative solution. Their collaboration produced Kenya's first fully mobile dialysis unit, a medical facility on wheels designed specifically to reach underserved populations.

The Renal Roads Dialysis Truck represents a technological marvel in decentralized healthcare, equipped with specialized equipment that maintains hospital-grade treatment standards while operating in rural communities. Beyond its life-saving dialysis capabilities, the unit carries advanced screening tools to detect early-stage kidney disease, a critical intervention point that could prevent future cases.



*Figure 1: A photo of the renal roads dialysis truck during its launch at kirwara hospital, Gatanga Constituency*

### **Implementation of the practice (*Solution Path*):**

The successful rollout of the mobile dialysis truck in Murang'a County was made possible through a strategic partnership between the Murang'a County Government and Benacare. This collaboration was anchored in a shared goal to expand access to quality kidney care services for underserved populations in the County.



Figure 2: launch of the Renal Roads Dialysis Truck by Governor H.E. (Dr.) Irungu Kang'ata and the Founder of Benacare, Ms. Naom Munari

This began with research being conducted by the County Health Department in collaboration with Jomo Kenyatta University of Agriculture and Technology (JKUAT) which revealed a high burden of chronic kidney disease and limited access to dialysis services. This data provided a strong justification for exploring alternative service delivery models.

Then the County entered into a partnership with Benacare to co-design and operationalize a mobile dialysis unit that would bring services directly to remote areas. Benacare provided technical expertise in mobile health delivery, while the County coordinated deployment and service integration. The partners developed the Renal Roads Dialysis Truck equipped with:

- Four modern dialysis machines
- Medical equipment for hemodialysis and hemofiltration
- Tools for screening kidney disease, blood sugar, urine, and kidney function





Figure 3: Dialysis Machines inside the renal roads dialysis truck

A clear operational framework was established to guide how services would be delivered:

- Patients register at designated local health centres
- Doctors assess patients to determine eligibility for dialysis
- Patients are scheduled for dialysis twice per week
- The truck follows a rotating schedule to visit selected facilities across Sub-counties

The County ensured that the services provided by the truck were accessible through existing medical insurance schemes such as Kang'atacare and the Social Health Authority, reducing financial barriers to care.

Initial deployment prioritized areas like Kandara and Gatanga, which are far from the main dialysis centres in Murang'a. The mobile unit was officially launched at Kirwara Hospital in Gatanga Sub-county before being rolled out countywide.

#### Results of the practice (**outputs and outcomes**)-

- Improved access to dialysis treatment in rural and underserved areas
- Decongestion of Murang'a Level 5 and Kigumo Sub-county Hospitals
- Reduced travel and treatment costs for patients
- Timely diagnosis and intervention for kidney disease cases
- Increased service equity across sub-counties
- Potential reduction in kidney-related deaths through early treatment

#### Lessons learnt:

- Mobile healthcare innovations can effectively close access gaps in specialized services like dialysis.
- Public-Private Partnerships are key in scaling healthcare innovations that address emerging county-level challenges.
- Bringing services closer to the community significantly improves patient outcomes and reduces health-related financial burdens.



- Preventive screening integrated into treatment programs can help detect and manage diseases early, reducing long-term risks.

**Recommendations:**

- Continuous support and investment in community-based healthcare innovations is necessary.
- Awareness campaigns should be conducted to inform communities about the availability of the dialysis truck and how to register for services.



## Photo Gallery



Figure 4: Health Officer inspecting the dialysis machines inside the renal roads dialysis truck



Figure 5: Governor Irungu Kang'ata together with key Partner; Benacore, villgro Africa, Boehringer Ingelheim, and LVCT Health during the launch of the dialysis truck