

STATEMENT OF WORK: SPECIMEN TRANSPORTATION SERVICES FOR LABORATORY-ENHANCED DIARRHEAL DISEASE SURVEILLANCE

1. INTRODUCTION

1.1 Background

Diarrheal diseases, the second leading cause of death in children under five, are often associated with the lack of access to safe water and adequate sanitation. The Millennium Challenge Corporation (MCC) is partnering with the Government of Zambia under the Millennium Challenge Account - Zambia (MCA-Z) to improve the water, sanitation, and drainage systems in Lusaka. As part of this investment, the Centers for Disease Control and Prevention (CDC) will evaluate the health and economic impact of the water, sanitation, and drainage system interventions. CDC is collaborating with the Zambia Ministry of Health (MOH) to strengthen the existing syndromic surveillance for diarrheal diseases and add laboratory-enhanced sentinel surveillance to select health facilities in intervention and control areas in Lusaka as part of the evaluation.

1.2 Project Goals

The primary goal is to evaluate the impact of the water, sanitation, and drainage interventions on the incidence of diarrheal disease. Secondly, we hope this project will support and strengthen diagnostic laboratory capacity for diarrheal diseases. This will help us to gain a better understanding of the proportion of diarrheal illness attributable to specific pathogens. To achieve these goals we have the following objectives:

- i) Strengthen and track clinical syndromic surveillance for diarrheal disease using existing case definitions in specified health facilities within Lusaka.
- ii) Carry out laboratory-enhanced sentinel surveillance for selected parasitic, viral, and bacterial pathogens for a sample of cases of diarrheal disease presenting to selected health facilities in intervention and control areas in Lusaka.

1.3 Project Logistics

In addition to the clinical information already collected about diarrheal disease, this project will include laboratory-enhanced diarrheal disease surveillance. Project laboratory-enhanced surveillance will be integrated into existing MOH diarrheal disease surveillance at Chainda, Chelstone, Kanyama, and Ng'ombe Clinics with verification and enhanced testing done at University Teaching Hospital (UTH). For each clinic site we will attempt to collect 10 specimens from individuals presenting to the outpatient clinic with diarrhea (a total of 40 specimens per week). Specimens will be tested at two of the four clinic sites and 10% of specimens per week (an average of 4) plus any positive isolates will additionally be tested at UTH.

2. SCOPE OF WORK

The purpose of this work order is to contract with a transportation service or company (hereafter called THE CONTRACTOR) to transport laboratory specimens between Chainda, Chelstone, Kanyama and Ng'ombe Clinics, and deliver duplicate samples to UTH. Specimens will be collected in clinics on Monday, Tuesday and Wednesday. We are requesting that THE CONTRACTOR transport the specimens from Ng'ombe Clinic to Kanyama Clinic, and from Chainda Clinic to Chelstone Clinic at approximately 13:00 – 14:00 hours in a timely, reliable, and safe manner. The specimens will be in coolers at the clinic and it is expected that during the hour of transportation refrigeration at 2–8 °C is maintained. At approximately 14:00 hours from Tuesday–Friday the split fresh specimens for duplicate testing (10%) and any isolates will be collected by THE CONTRACTOR from Chelstone and Kanyama clinics and transported to UTH in the same manner as described above. Table 2.1 gives a summary of the pick-up and drop-off schedule. An exact schedule of times can be established by THE CONTRACTOR and the clinic as long as they are kept reliably and maintain appropriate workflow within the clinics and laboratories.

Table 2. 1: Laboratory Samples Delivery Schedule

Specimen Collection	Specimen Drop-Off	Days
Chainda clinic	Chelstone Clinic	Mon. – Wed. @ 13:00 – 14:00 hours*
Ng’ombe clinic	Kanyama Clinic	Mon. – Wed. @ 13:00 – 14:00 hours*
Chelstone and Kanyama	UTH	Tues. – Fri. @ 14:00*

* An exact schedule of times can be established by THE CONTRACTOR and the clinic as long as they are kept reliably and maintain appropriate workflow within the clinics and laboratories.

3. TECHNICAL REQUIREMENTS

THE CONTRACTOR shall, as an independent organization and not as part of the US Government, furnish all necessary courier services, qualified personnel, materials and any other equipment apt to perform the following tasks as outlined in section of the attached contract:

Task 1: Specimen collection: Ensure timely collection of laboratory whole specimens from each pick-up clinic for delivery to laboratories at drop-off clinics or UTH (within 1 hour).

Task 2: Specimen handling: Secure the sample to avoid breakage/spillage during transportation. To ensure viability and safety, samples will be transported in insulated containers or coolers and kept 2–8 °C during transport by an ample amount of ice. It is expected that there will be 1 cooler (package) per site per pick-up. A cooler may contain multiple specimens.

Task 3: Specimen delivery: Ensure delivery of specimen within 1 hour of collection. THE CONTRACTOR shall sign for the specimen both at collection and delivery; Specimen Collection and Delivery Signing Sheet is attached in Annex 1. THE CONTRACTOR and health facilities will each have copies of the signing sheet on which health facility staff and THE CONTRACTOR will both be signing.

4. GOVERNMENT FURNISHED PROPERTY

No equipment will be furnished by CDC to THE CONTRACTOR for completion of these tasks. However, the specimens will be properly labeled, securely packaged in plastic and cooler, and kept 2–8 °C in the clinic before transportation. If the clinic coolers are used by THE CONTRACTOR for transportation then they must be returned to the clinic the following day.

5. DELIVERABLES AND DELIVERY SCHEDULE

THE CONTRACTOR shall complete per-contract collection, transportation, and delivery of laboratory specimens from all clinics as per delivery schedule in Table 2.1. THE CONTRACTOR will be paid monthly based on the original negotiated price per successful delivered according to the specifications and requirements described within this contract of the contract. Within the year of this contract, the price cannot be renegotiated. The length of the contract will be for one year at which time both THE CONTRACTOR and CDC can re-evaluate the terms and conditions. Early termination, before the one year of this contract, could be undertaken if there are ≥ 5 documented times in which the contract is not upheld.

6. ANNEX ONE

6.1 Specimen Collection and Delivery Sheet

Health Facility Pick-up (circle one)	Health Facility Staff Name	Name of Courier	Specimen Properly Packaged	Date	Time Collected	Collection Temp (°C)	Time Delivered	Delivery Temp (°C)	Health Facility Delivered to (circle one)	Comments
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	
CHA, CHE, KAN, NGO			Yes / No						CHA, CHE, KAN, NGO, UTH	

CHA—Chainda Clinic

CHE—Chelstone Clinic

KAN—Kanyama Clinic

NGO—Ng'ombe Clinic

UTH—University Teaching Hospital