

iCCM Program Costing: Cameroon, DRC, Sierra Leone, South Sudan, and Zambia

Zina Jarrah

Management Sciences for Health



iCCM 2014

**Integrated Community Case Management (iCCM):
Evidence Review Symposium**
3-5 March 2014, Accra, Ghana

Objectives

- Understand the impact of the **iCCM model** and contextual factors on program **costs**
- Understand the impact of **iCCM utilization** on treatment costs and **cost-effectiveness**



iCCM 2014

**Integrated Community Case Management (iCCM):
Evidence Review Symposium
3-5 March 2014, Accra, Ghana**

Methodology

- iCCM Costing and Financing Tool, developed under USAID TRAction Project
- NGO-implemented iCCM Programs in sub-national regions
- Costing based on actual number of iCCM treatments and a mix of standard and actual costs
- Include all iCCM program costs: medicines and commodities, CHW salary (if applicable), training, program management, supervision

Methodology

- Include costs covered through other budgets (i.e. health center supervisor salaries)
- Separate costs by recurrent (i.e. medicines, management, supervision) and start-up (i.e. initial CHW training and equipment)
- All data shown for 2012 and in USD
- ***Caution – preliminary analysis/provisional data***

Countries

A map of the African continent with a color gradient from light orange in the north to dark orange in the south. Several countries are highlighted in a darker red color. These highlighted countries include Sierra Leone, Liberia, Ivory Coast, Ghana, Nigeria, Chad, Cameroon, Central African Republic, South Sudan, DRC, Congo, and Zambia.

- Cameroon (PSI)
- DRC (PSI)
- Sierra Leone (IRC)
- South Sudan (Save the Children)
- Zambia (Malaria Consortium)

iCCM Program Overview

	Cameroon	DRC	Sierra Leone	South Sudan	Zambia
Geographic areas studied	2 Districts (Doume and Nka)	1 District (Sud-Ubangi)	1 District (Kono)	10 Counties in 5 States	1 Province (Luapula)
iCCM region target	Rural/Remote	Rural/Remote	Rural/Remote	Rural/Remote	Rural/Remote
Total population covered	139,520	926,843	206,430	919,564	741,373
Population 2-59 covered	25,114	138,100	31,584	160,004	137,895
children 2-59 as % of total pop	18%	15%	15%	17%	19%

iCCM 2014

**Integrated Community Case Management (iCCM):
Evidence Review Symposium
3-5 March 2014, Accra, Ghana**

CHW Profile

	Cameroon	DRC	Sierra Leone	South Sudan	Zambia
Name	ASC (agent de santé communautaire)	RECO (relais communautaire)	CHW (community health worker)	CBD (community-based distributor)	CHW (community health worker)
Number of CHWs	419	805	840	891	1,332
Total population per CHW	333	1,151	246	1,032	557
Children (2-59 mos) per CHW	60	172	38	180	104
Paid or Volunteer	Volunteer	Volunteer	Volunteer	Volunteer	Volunteer

iCCM Package of Services

	Cameroon	DRC	Sierra Leone	South Sudan	Zambia
Diarrhea	<ul style="list-style-type: none"> • Yes • ORS • Zinc 	<ul style="list-style-type: none"> • Yes • ORS • Zinc 	<ul style="list-style-type: none"> • Yes • ORS • Zinc 	<ul style="list-style-type: none"> • Yes • ORS • Zinc 	<ul style="list-style-type: none"> • Yes • ORS • Zinc
Pneumonia	<ul style="list-style-type: none"> • No (started in 2013) 	<ul style="list-style-type: none"> • Yes • Co-trimoxazole 	<ul style="list-style-type: none"> • Yes • Co-trimoxazole 	<ul style="list-style-type: none"> • Yes • Amoxicillin 	<ul style="list-style-type: none"> • Yes • Amoxicillin
Malaria	<ul style="list-style-type: none"> • Yes • ACT - Presumptive treatment (RDTs in 2013) 	<ul style="list-style-type: none"> • Yes • ACT - Presumptive treatment 	<ul style="list-style-type: none"> • Yes • ACT - Presumptive treatment 	<ul style="list-style-type: none"> • Yes • ACT - Presumptive treatment 	<ul style="list-style-type: none"> • Yes • RDT for fever • ACT for confirmed malaria
Other	<ul style="list-style-type: none"> • Referral 	<ul style="list-style-type: none"> • Referral • Cough • Malnutrition 	<ul style="list-style-type: none"> • Referral 	<ul style="list-style-type: none"> • Referral 	<ul style="list-style-type: none"> • Referral

Supervision & Training

	Cameroon	DRC	Sierra Leone	South Sudan	Zambia
Primary Supervisor	ASC Supervisor (NGO)	Infirmier Titulaire (MOH)	CHW Supervisor (NGO)	CBD Supervisor (NGO)	Health Center In-Charge (MOH)
Number of NGO Supervisors	23	126	78	82	77
CHWs per Supervisor	18	6	11	11	17
Initial CHW Training	3-day training on malaria and diarrhea	5-day training on iCCM	6-day training on iCCM	5-day training on iCCM	6-day training on iCCM
Refresher CHW Training	Annual 3-day refresher	No refresher training in 2012	No refresher training in 2012	Biannual 3-day refresher	Annual 3-day refresher

iCCM 2014

**Integrated Community Case Management (iCCM):
Evidence Review Symposium
3-5 March 2014, Accra, Ghana**

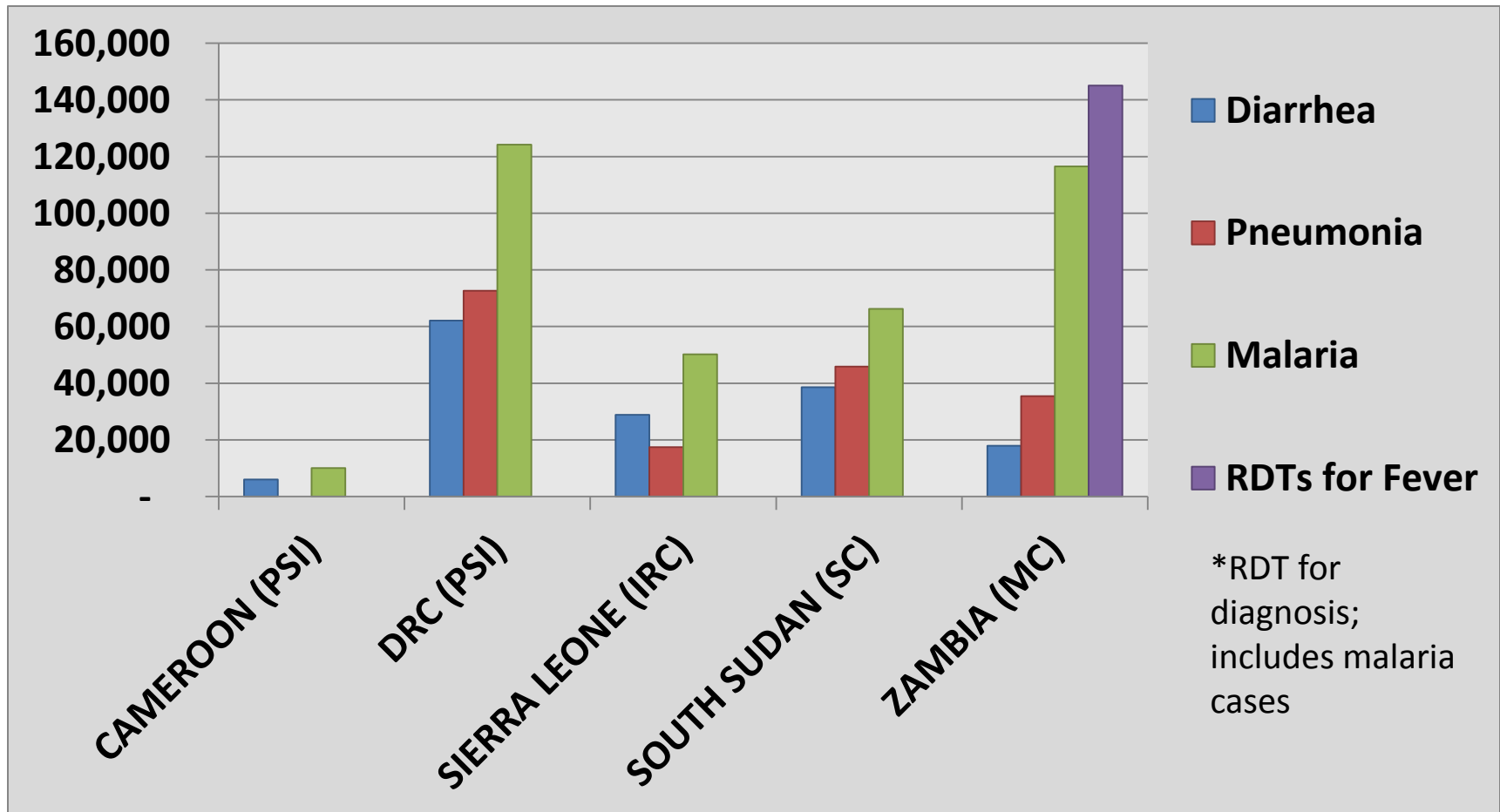
RESULTS



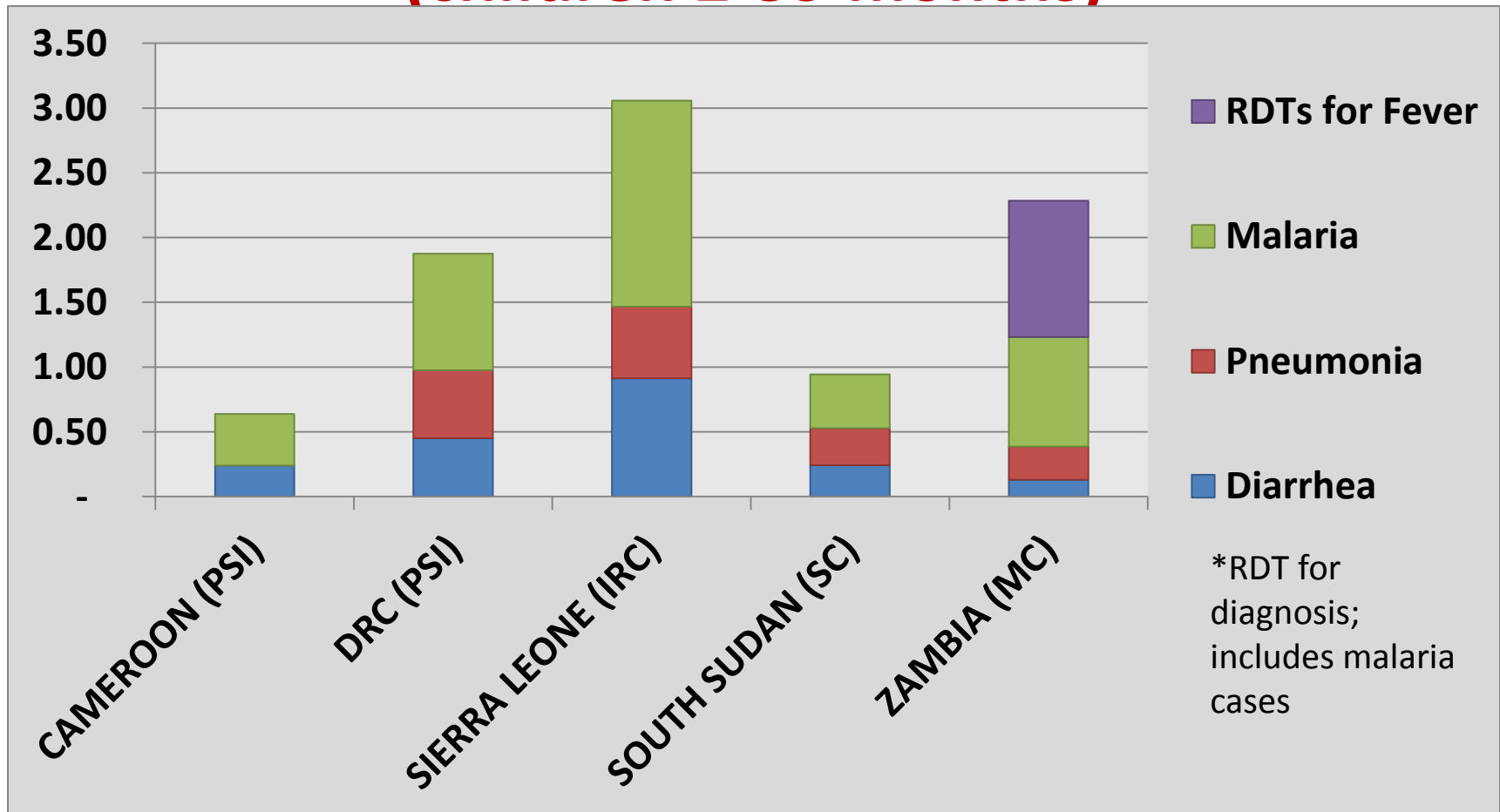
iCCM 2014

**Integrated Community Case Management (iCCM):
Evidence Review Symposium
3-5 March 2014, Accra, Ghana**

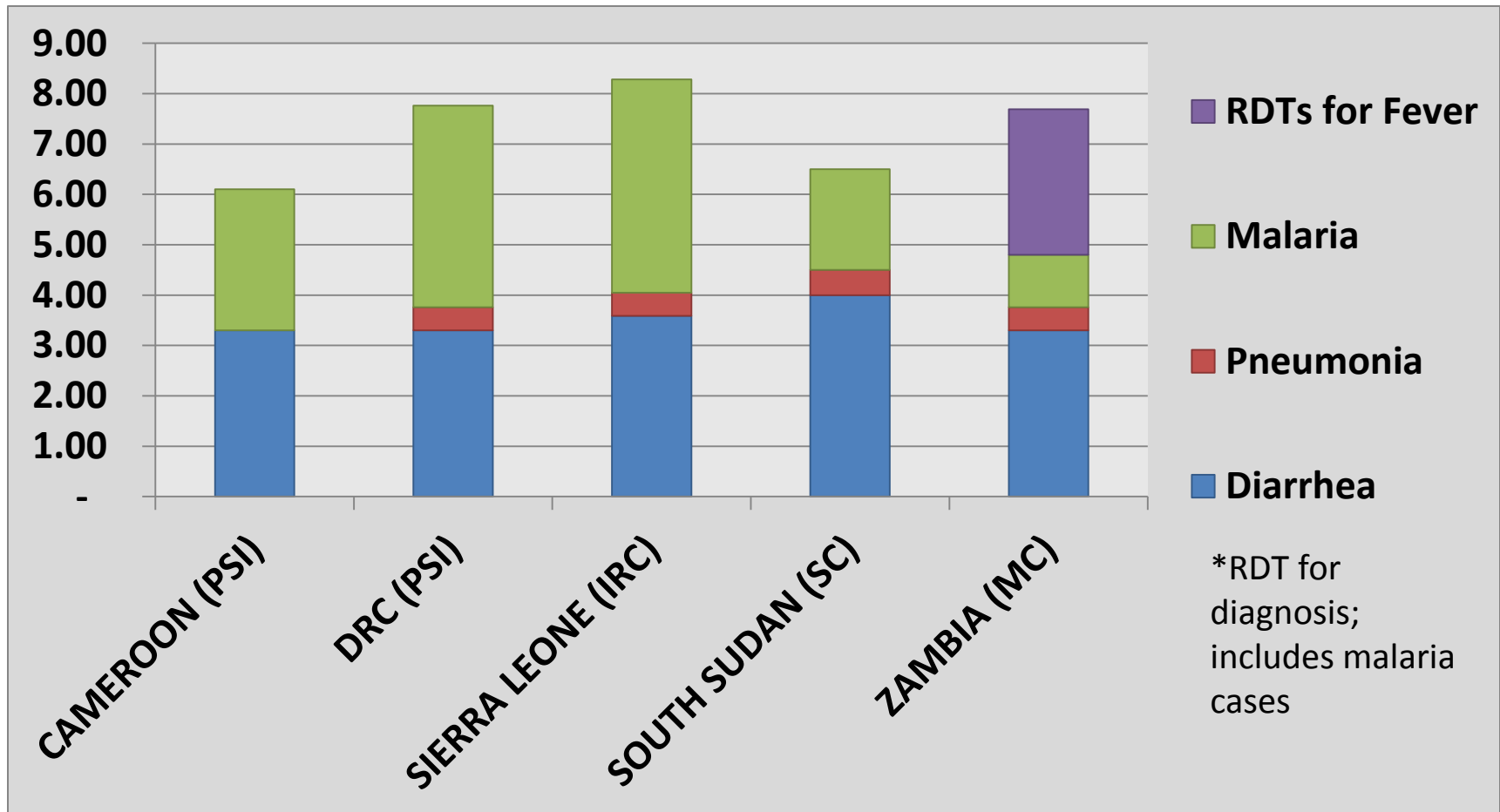
Total iCCM Treatments, 2012



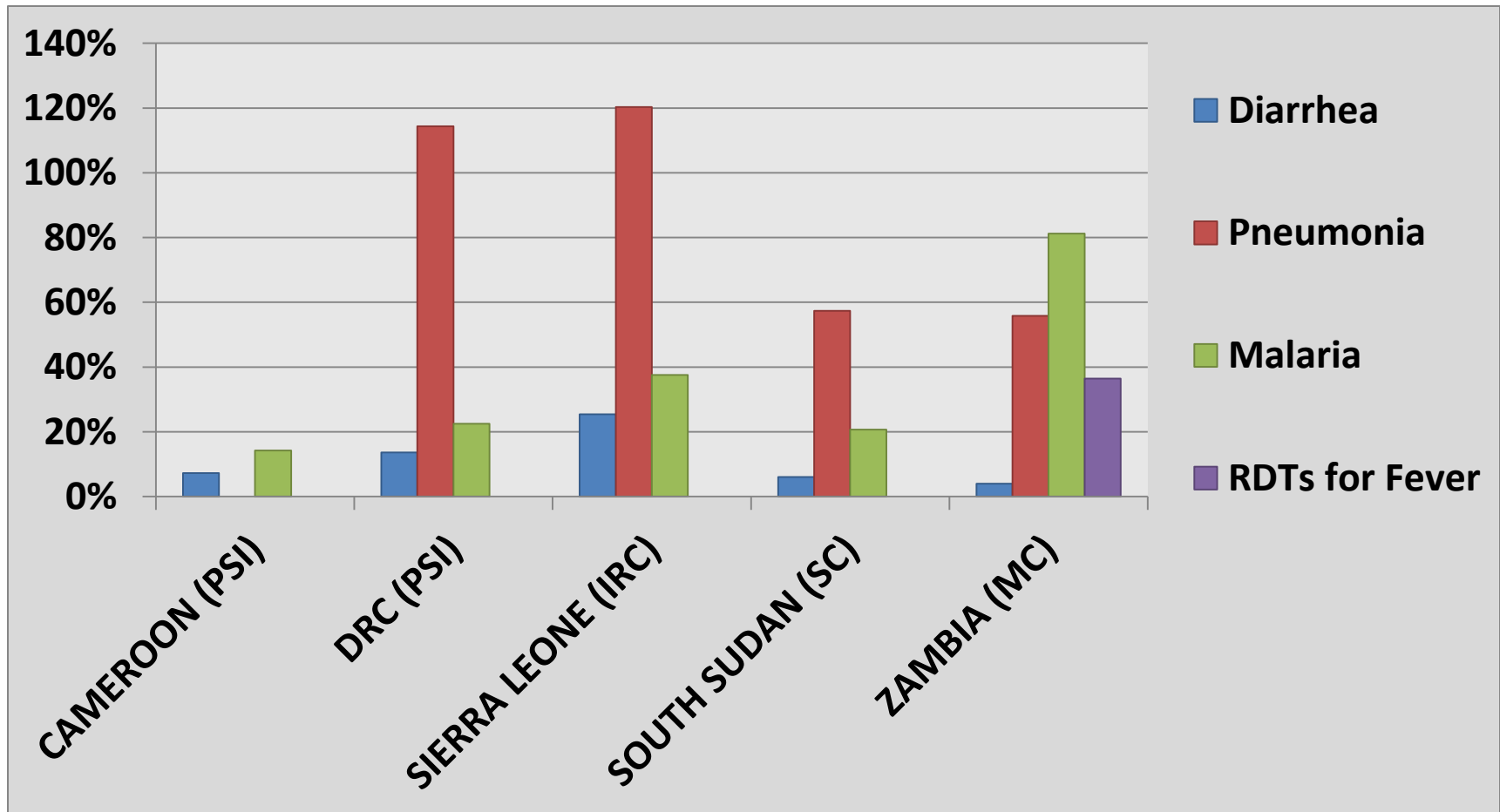
Actual iCCM Cases per Capita (children 2-59 months)



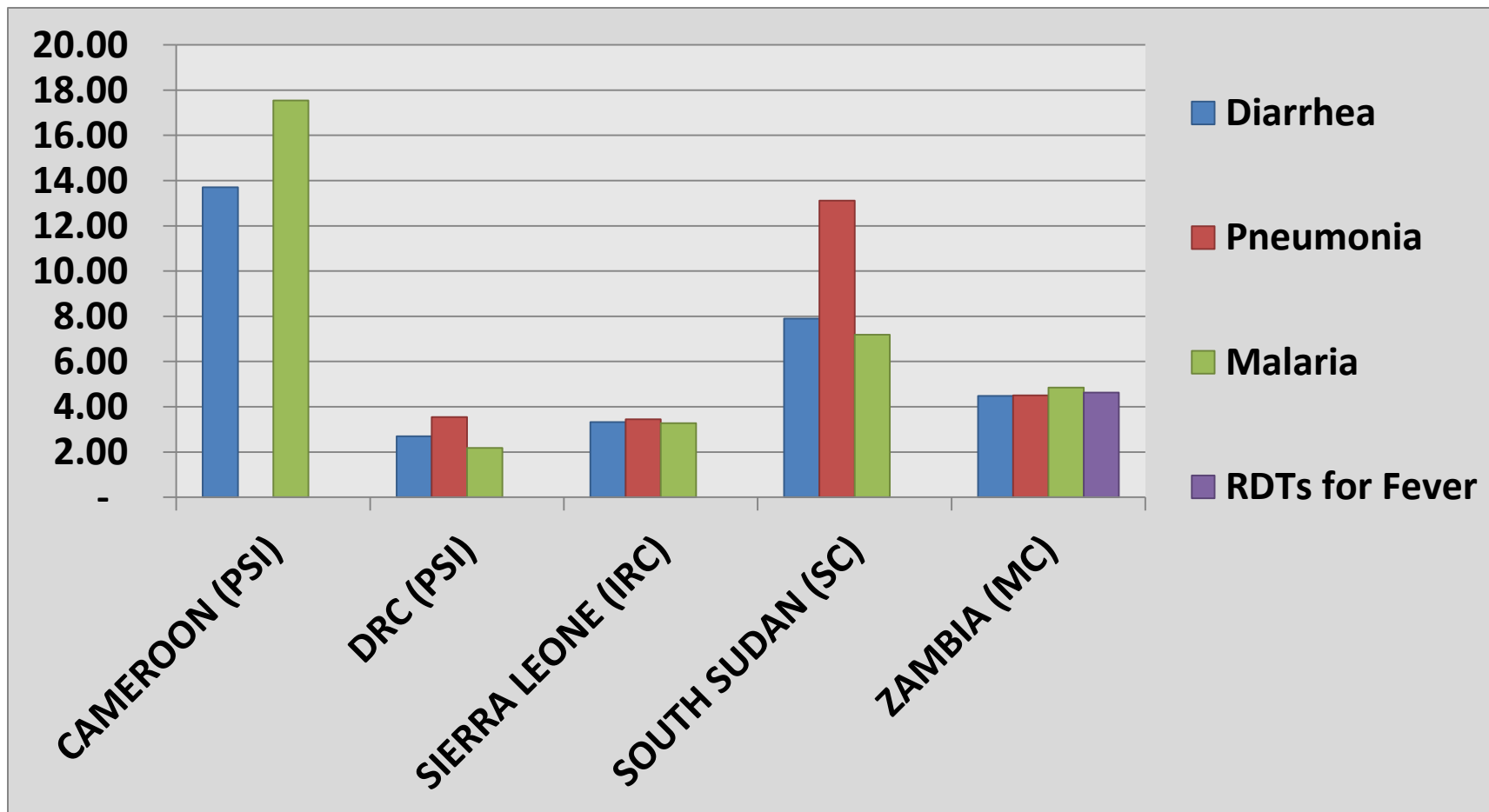
“Expected” iCCM Cases per Capita



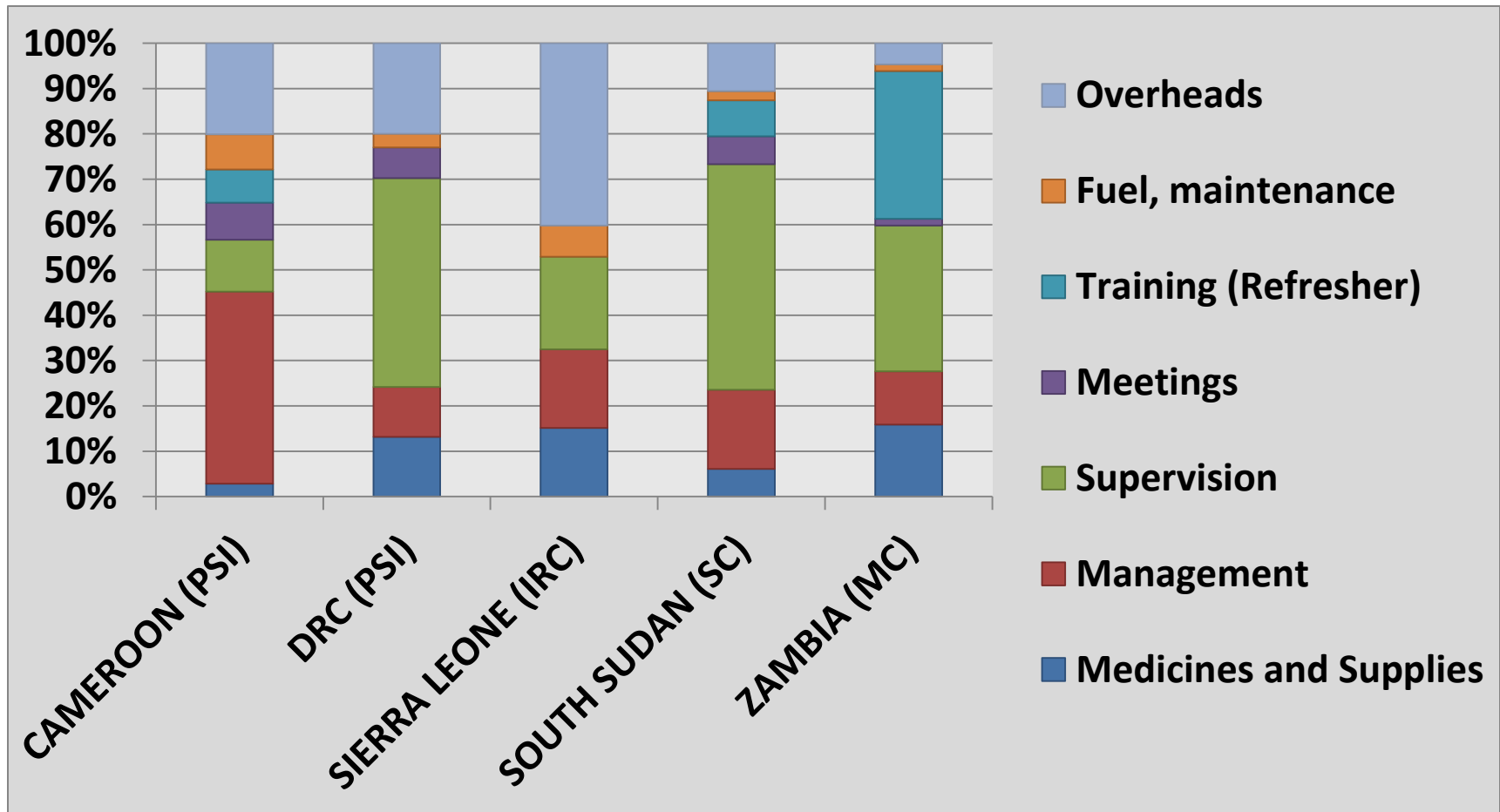
Treated vs. Expected Cases



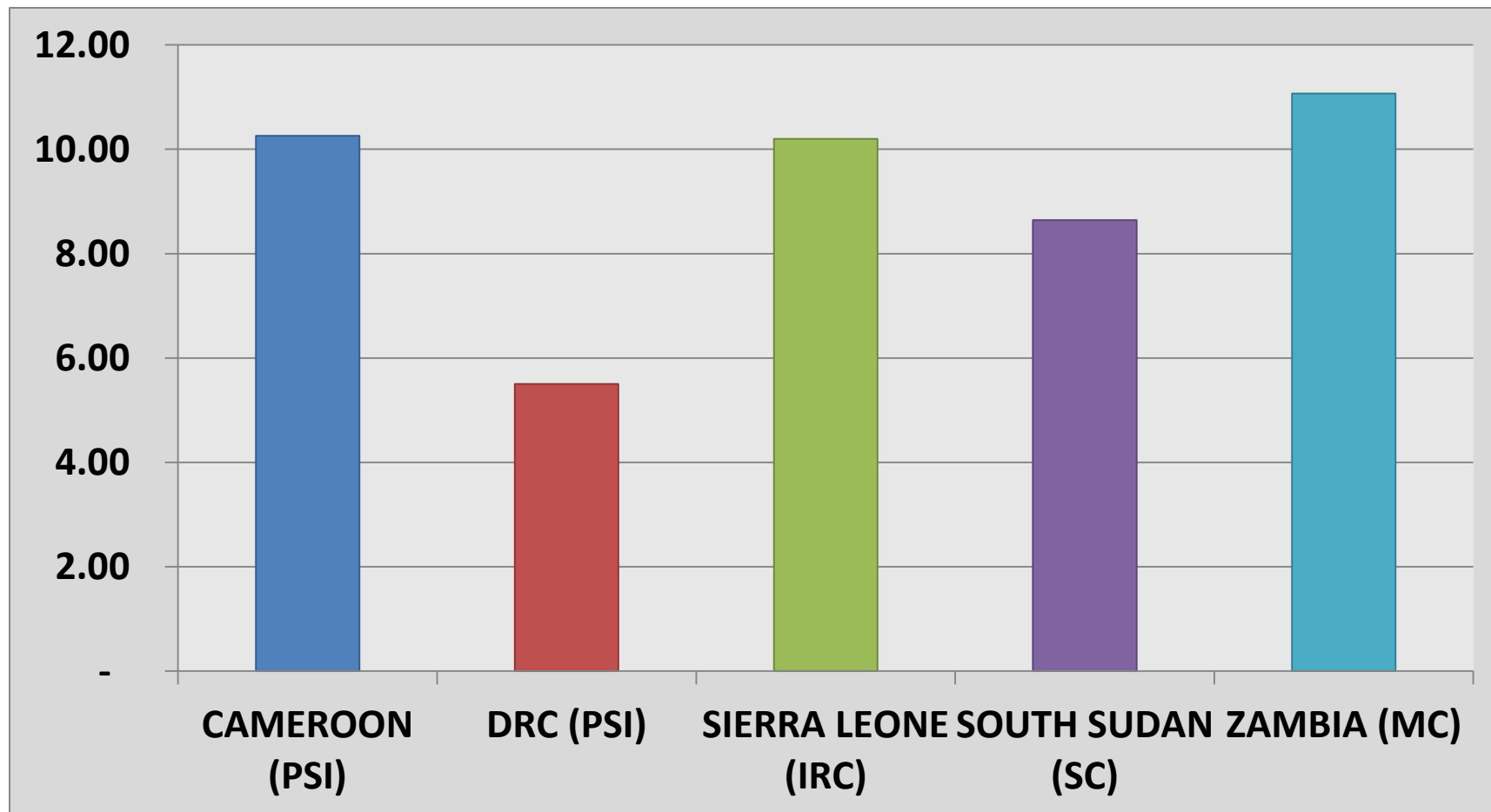
Cost per iCCM Treatment/Diagnosis, USD



iCCM Program Cost Distribution



Cost per Capita (2-59 months), USD



Discussion

- Variations in iCCM program models are important considerations of cost
- Supervision and management costs were key cost drivers
- Higher costs per service due to lower utilization; fixed program costs are distributed over fewer services
- As programs mature, costs per service should decrease as utilization increases, as should cost-effectiveness

Lessons Learned

- iCCM programs should be well-utilized to improve cost-effectiveness
- iCCM programs require investments in the health system – supervision, HR, supply chain
- More evidence on cost-effectiveness needed; tie cost data in with impact evaluations, compare with facility-based costs
- Demand side and patient costs should be taken into consideration

ACKNOWLEDGEMENT

Bill and Melinda Gates Foundation
International Rescue Committee (IRC)
Malaria Consortium (MC)
Population Services International (PSI)
Save the Children (SC)
**USAID TRAction (Translating Research Into
Action) Project**
University Research Corporation (URC)

A photograph of three young children, two girls and one boy, smiling and looking towards the camera. They are wearing colorful, patterned clothing. The background is a plain, light-colored wall.

THANK YOU!

iccm 2014

**Integrated Community Case Management (iccm):
Evidence Review Symposium
3-5 March 2014, Accra, Ghana**