Bridging the gap with a

Health Routine Data APP

HERODA

 **BELGIAN – MOZAMBICAN PARTNERSHIP** 

2016 BE-CAUSE HEALTH seminar, Brussels

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HIS advisor and software developer

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HERODA

is

an ICT **solution** for **routine** health **data** handling from the **health facility** upwards in **resource limited** environments based on **25 years** of **field experience** *

H Zimbabwe 1991-2010; MOH Mozambique 2003-2016; Merlin 2009-2016

Rationale

g challenges

n advanced ICT environment is not available or is hard to intain (servers, system software,..)

e configuration of health data forms is complicated, can result onflicting indicator datasets and can delay a systems roll-out h years

mited operational capacity when internet is not available

duced usage because of limited human resources capacity

xtensive training is expensive and keeps staff from doing their rmal work

Rationale

RODA **provides a SOLUTION that**

- **uses existing technology**
- **works in all remote areas**
- **configures all data forms and reports “pre-packed”**
- **can be delivered and rolled-out fast**
- **provides extreme user friendliness**
- **can be linked with any other system**

Challenges *and* Solutions

1. ICT-Environment
2. Data forms configuration
3. The offline - online debate
4. Users

T-Environment

open source frameworks

hyperlinks

open meta-data

dynamically embedded

REST architectural style

Resource abstraction layer

metadata management

Integration Engine

portal user interface

T-Environment

HERODA works in any place and in any condition

hallenges

	HERODA
evel and erage	Works on existing computers with any Windows version
	Does not depend on highly skilled ICT capacity
nical support	Requires no advanced ICT infrastructure
stment	Reduces investment and maintenance cost

ta forms

Many and Complex

3.1.3. ACCOUCHEMENTS *Population cible = femmes enceintes du mois (pop du mois x 0,04) =* %

Au CS **3.1.3. a Accouchements**	AS	HAS	HZ	TOTAL
Nb Acc. Eutociques				
Nb Acc. Dystociques				
Total Acc. au CS	a			
↳Dont Acc. surveillés				

Dans la communauté

Nb Acc à domicile		
↳*Dont référés au CS*		%
		%

3.1.3. b Naissances, Décès	Total
Nb naissances vivantes	
Nb Morts-nés	
Total naissances CS	

→

	Nbre
Nv nés à terme<2500g	
Prématurés	
Décès nouveaux-nés ≤ 7 jours	

Nb total naissances	
↳*Dont morts nés*	

3.1.3.c Suivi

Nb décès maternels au CS		Références mère et bébé		Nb décès maternels dans la communauté	

Taux d'acc. assistés=Accouchements de l'AS par personnel soignant (a) X 100/ Total femmes enceintes attendues %

3.1.4 CONSULTATIONS POST-NATALES (CPoN) ***And so on...*** Nb séances

	CPoN 1			CPoN 2	CPoN 3	Total Cas
	AS	HAS	HZ			
Nb consultations						

ta forms

HERODA uses standardised – and easy to use recognisable forms

allenges

a forms

m lay-out

figuration

roll-out time

HERODA

Comes with all data forms *pre-configured*

Presents *user recognizable* lay-outs

Is delivered and can be rolled-out in a matter of *weeks*

e offline – e debate	*offline pragmatism and online advantages where needed*
hallenges	***HERODA***
e functionality	Is fully operational offline Is applicable in *all remote areas*
access	Stores data on local computer
transfer and up	*Transfers* data *online* **and** on memory device
net cost	Reduces *internet cost*

ers

allenges

friendliness

city building

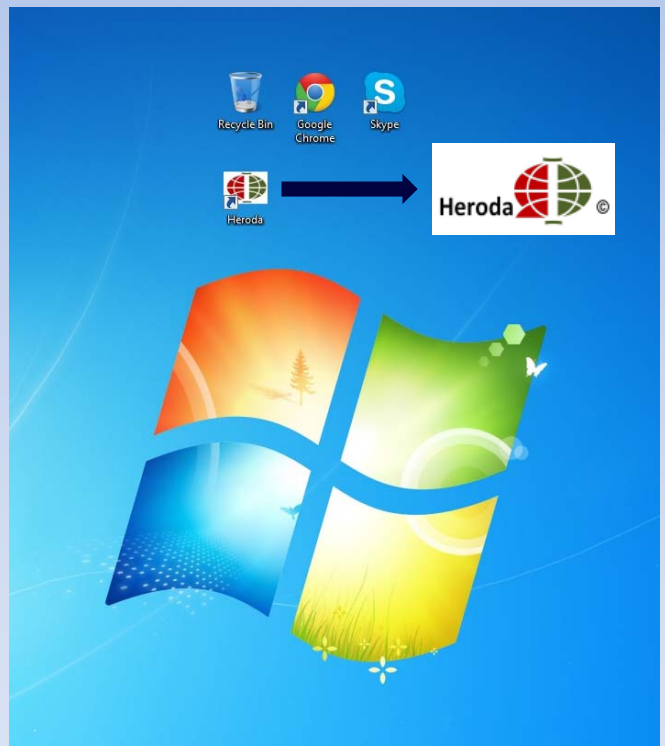
Confidence and happiness: required skills = available skills

HERODA

- Is *extremely easy* to learn
- Requires just *one day* of training (workshop syndrome)
- Allows *local handover* during staff rotation
- Is software *"misuse-proof"*

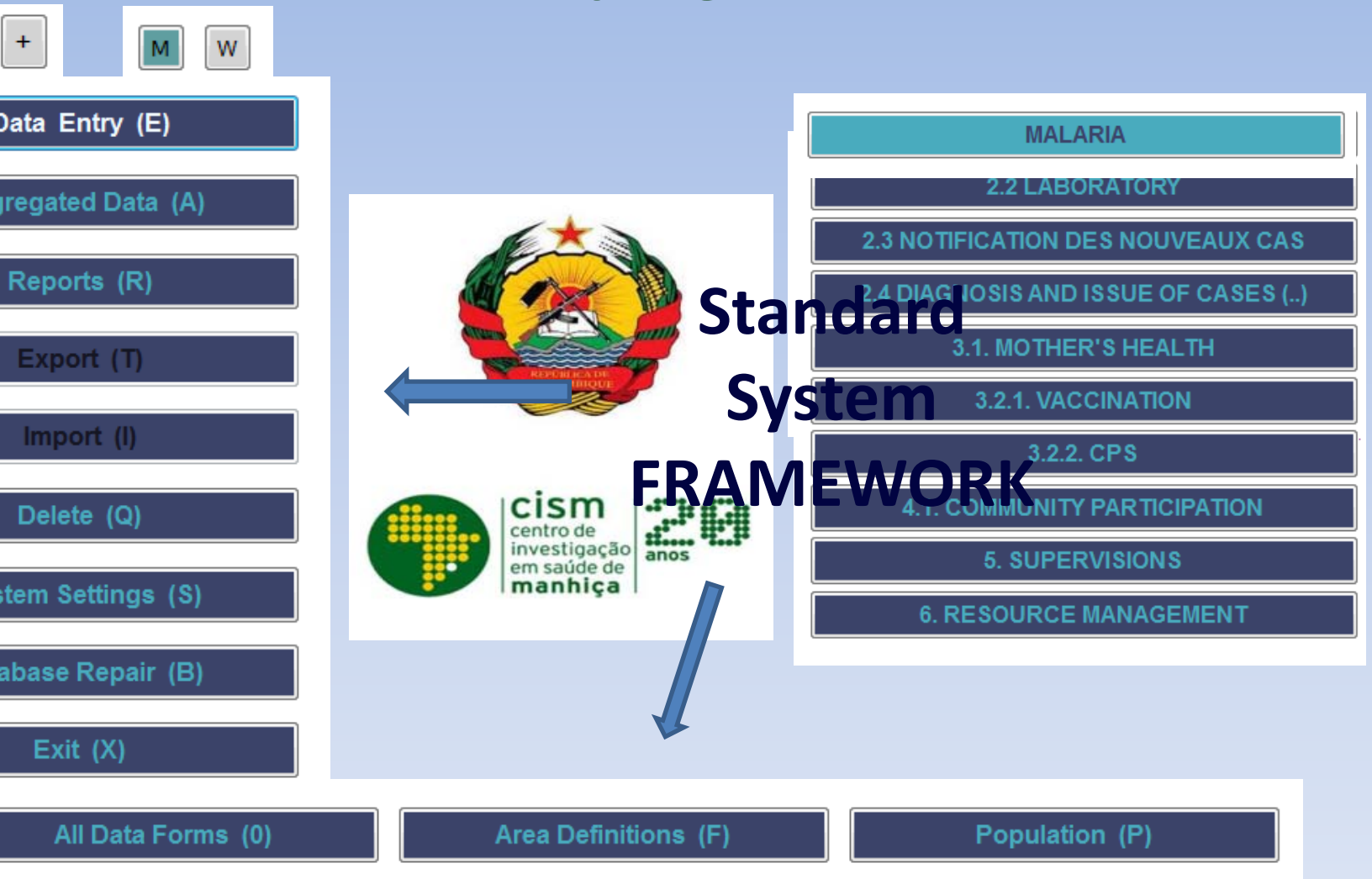
Demo

Main menu + system architecture



n Menu

designed for use by governments, bilateral programmes and NGO's



Standard System FRAMEWORK

Demo (cont)

Three key functions

1. Data Entry
2. Reports
3. Link with other systems

ta Entry

Step 1: select from main menu

M W

sie de Données (E)

onnées Agrégées (A)

Rapports (R)

Exportation (T)

Importation (I)

Supprimer (Q)

mètres système (S)

la Base de Données (B)

Exit (X)

Ministère de la Santé

République Démocratique du Congo

2.1 CONSULTATIONS

2.2 LABORATOIRE

2.3 NOTIFICATION DES NOUVEAUX CAS

2.4 DIAGNOSTIC ET ISSUE DES CAS (..)

3.1. SANTÉ DE LA MÈRE

3.2.1. VACCINATION

3.2.2. CPS

4.1. PARTICIPATION COMMUNAUTAIRE

5. SUPERVISIONS

6. GESTION DES RESSOURCES

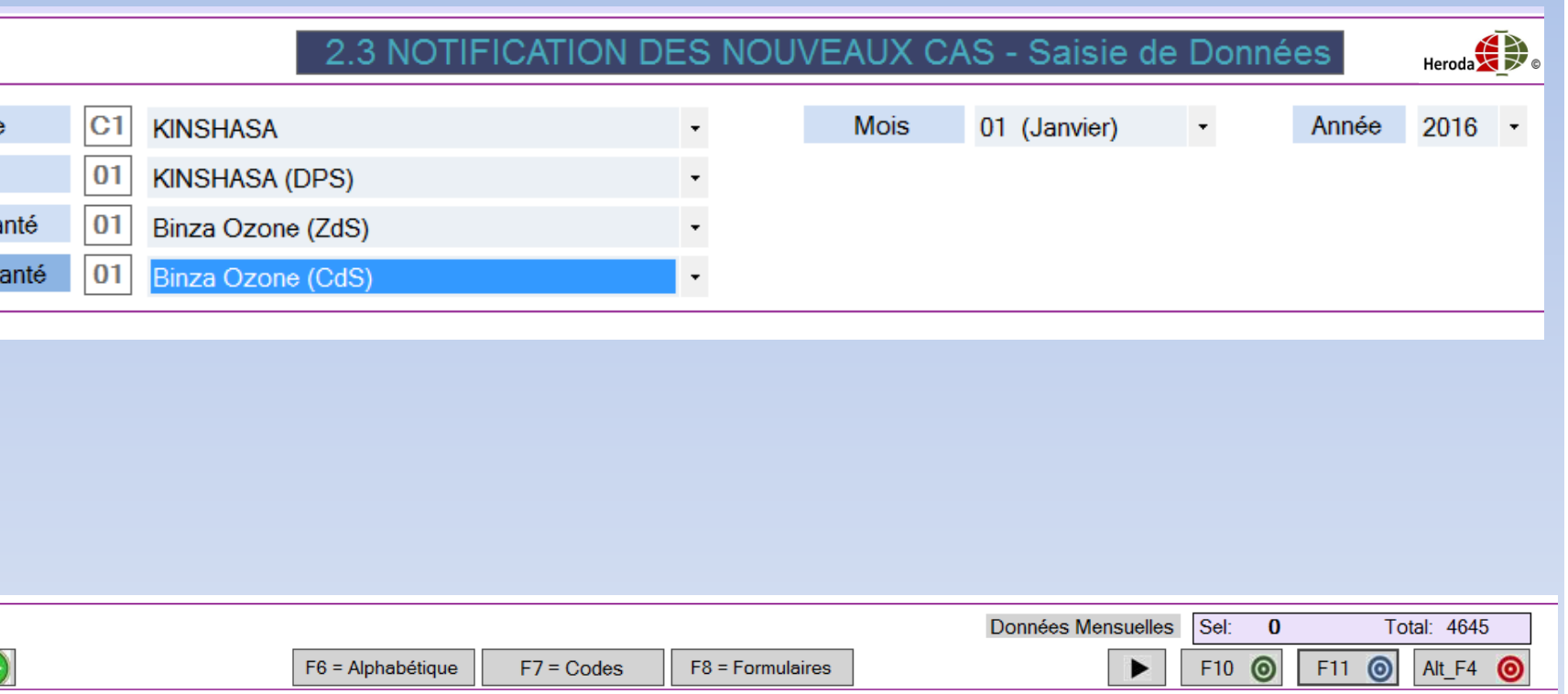
Toutes les Formulaires (0)

Définitions des Zones (F)

Population (P)

ta Entry

Step 2: select health facility and month / week



ta Entry

Step 3: fill in the data field values

2.3 NOTIFICATION DES NOUVEAUX CAS - Saisie de Données

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Binza Ozone (CdS) Mois: 01 / 2016

N DES NOUVEAUX CAS	0-11 mois		12-59 m		5-14 ans		15 ans et +		Total	
	M	F	M	F	M	F	M	F	M	F
	0	1	2	3	4	5	6	7	12	16

vacciné
non vacciné
virale
enceinte
enceinte
güe
cciné
n vacciné
ement existant

SNIS RDC – Province Orientale : Canevas mensuel de centre de santé ou dispensaire page 3/12

2.3 NOTIFICATION DES NOUVEAUX CAS MALADIES		0-11 mois	12–59 mois	5- 14 ans	15 ans +	Total
1	Choléra					
2a	Coqueluche Patient vacciné					
2b	Coqueluche Patient non vacciné					
3	Diarrhée sanglante					
4	Fièvre hémorragique virale					
5	Fièvre jaune					
6	Fièvre typhoïde					
7	Grippe aviaire					
8	Méningite					
9	Rougeole Patient non vacciné					
10a	Paludisme simple					
	Dont chez la femme enceinte					
10b	Paludisme grave					
	Dont chez la femme enceinte					
11a	Peste bubonique					
11b	Peste pulmonaire					
12	Paralysie Flasque Aigüe					
13a	Rougeole Patient vacciné					

user recognizable data forms

ta Entry

MALARIA - Data Entry

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PEMBA HP Month: 01 / 2016

e Management	H.Centre		EPA's		Total	
	< 5	≥ 5	< 5	≥ 5	< 5	≥ 5
nt Visits	0	1	2	3	2	4
d for malaria by TDR	4	5	6	7	10	12
d for malaria HTZ	8	9	10	11	18	20
laria cases (positive TDR1)	12	13	14	15	26	28
laria cases (positive HTZ2)	16	17	18	19	34	36
a cases (not tested)	20	21	22	23	42	44
treated with AL3	24	25	26	27	50	52
treated with ASAQ4	28	29	30	31	58	60

example of a second data form

ta Entry

REPRODUCTIVE HEALTH - Data Entry

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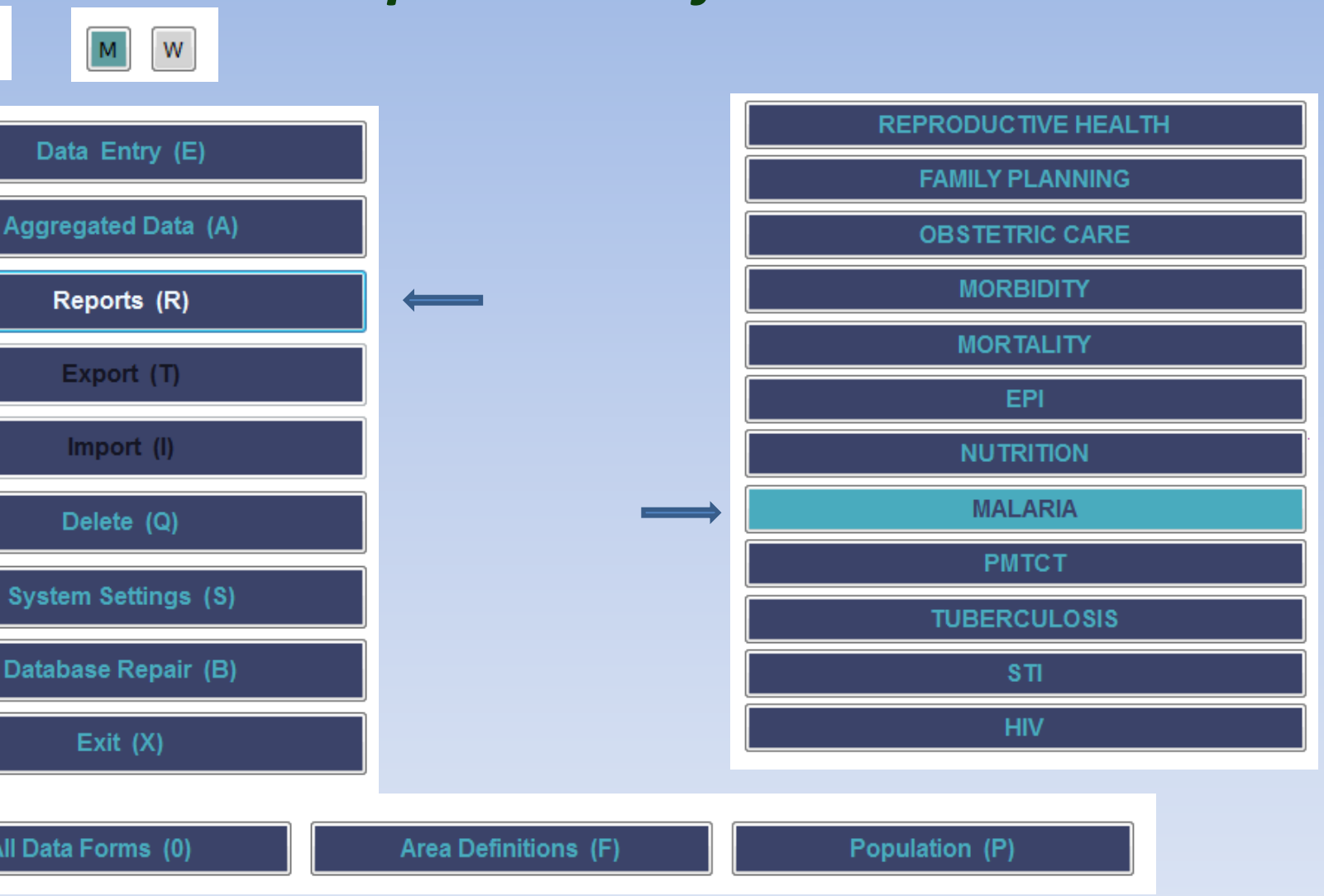
PEMBA HP Month: 02 / 2016

Care (ANC) nFields	15-24 Yrs	F	25-49	F	Total	F
		20		19		39
		18		17		35
ving 1 dose of TT		16		15		31
eceived at least TT2		14		13		27
C attendances in 1st week		12		11		23
						0
						0
						0
						0
						0
						0
						0

example of a third data form

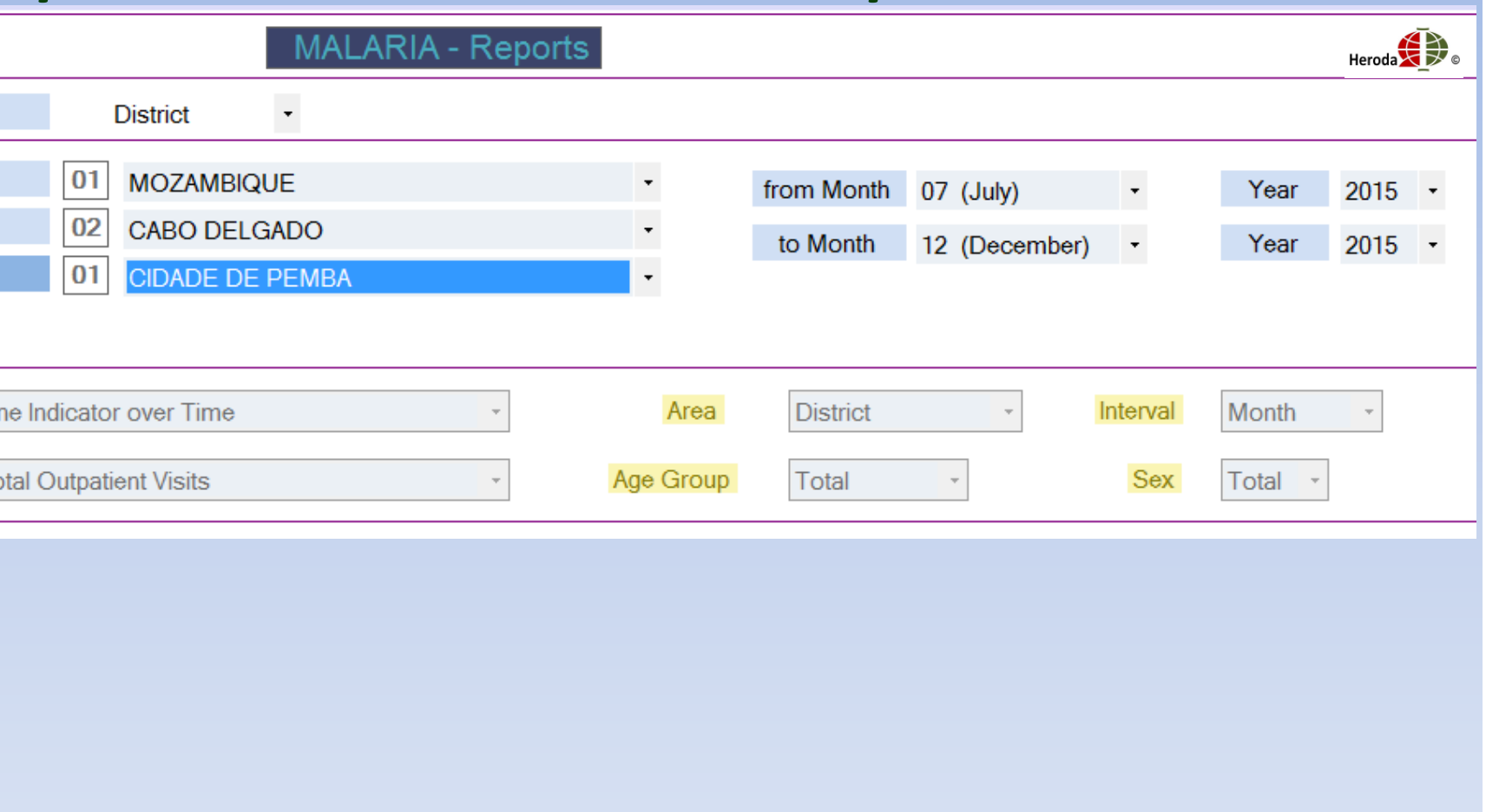
ports

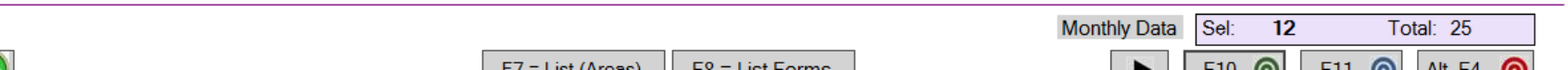
Step 1: select from main menu



ports

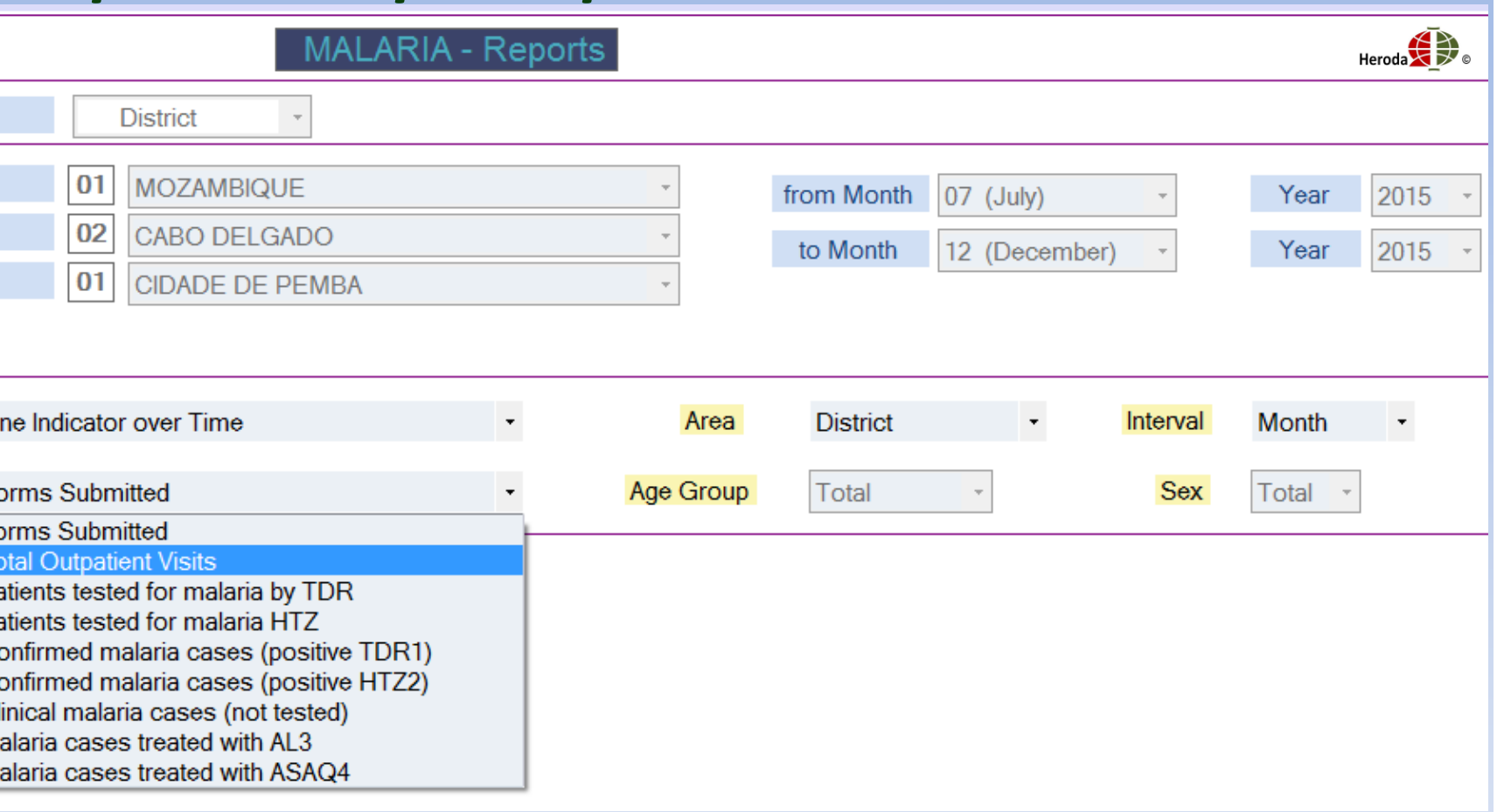
ep 2: select health area and period





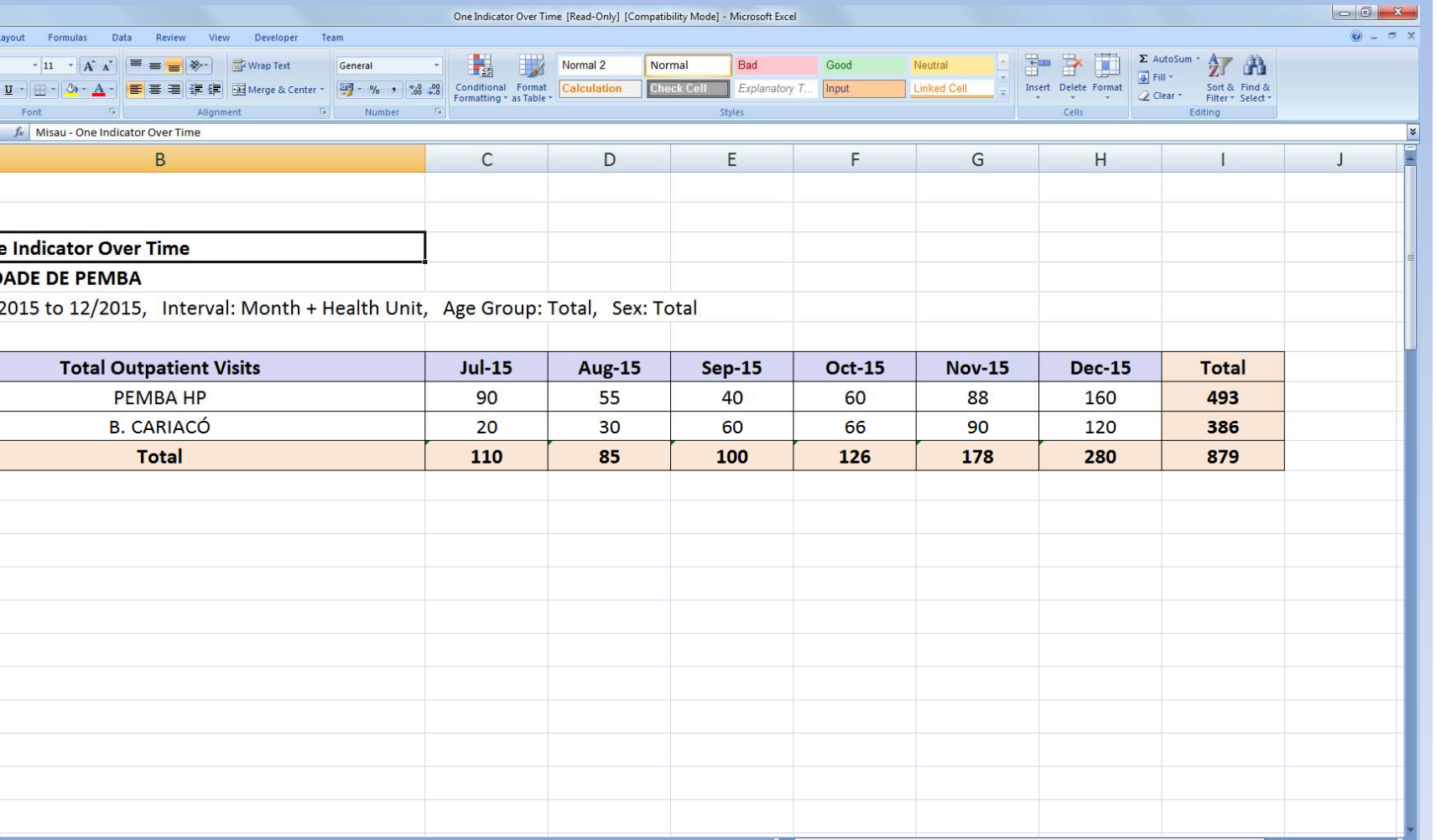
ports

Step 3: set report options



ports

tep 4: report generated in Excel



e Indicator Over Time

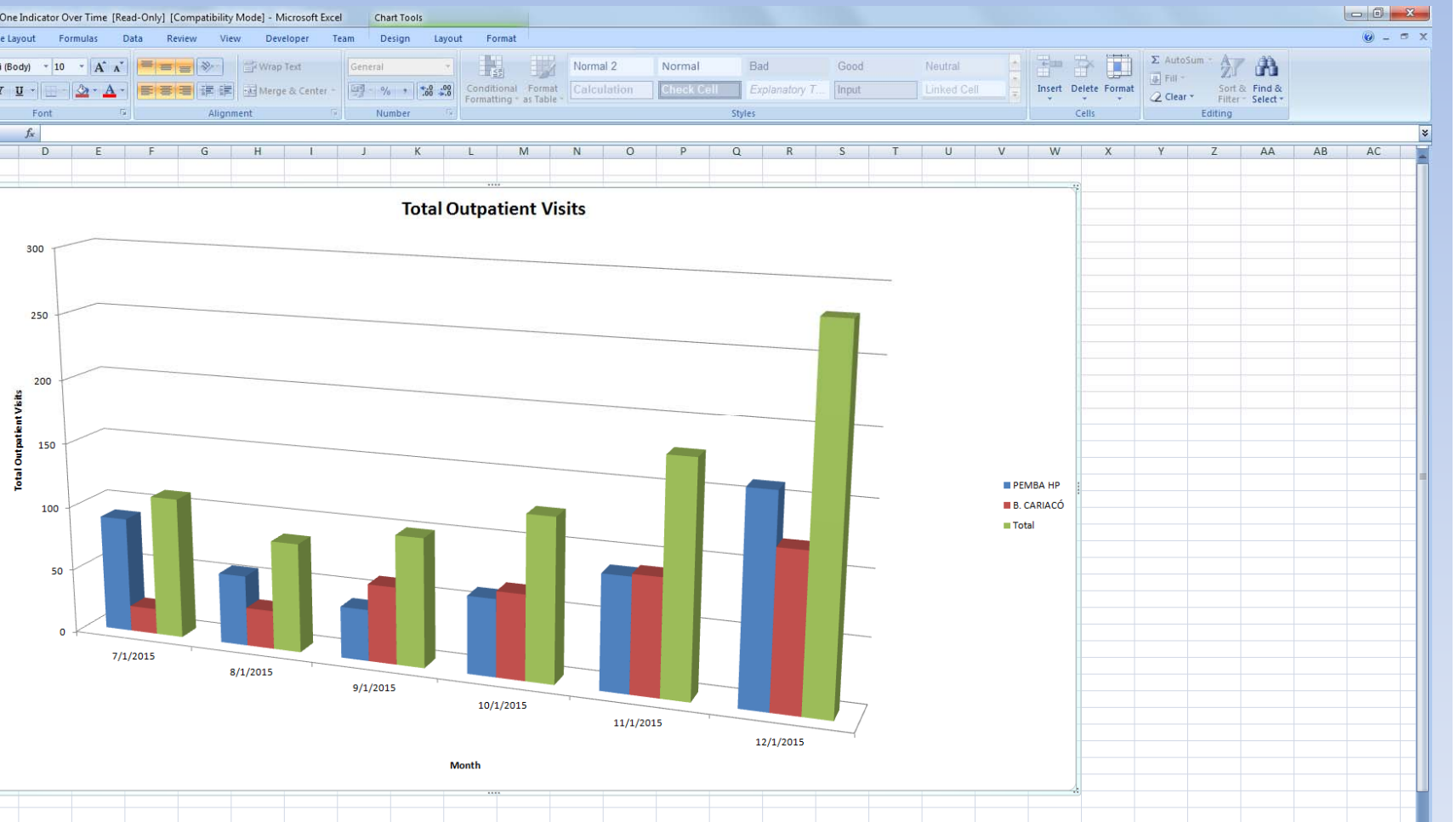
ADE DE PEMBA

2015 to 12/2015, Interval: Month + Health Unit, Age Group: Total, Sex: Total

Total Outpatient Visits	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Total
PEMBA HP	90	55	40	60	88	160	**493**
B. CARIACÓ	20	30	60	66	90	120	**386**
Total	**110**	**85**	**100**	**126**	**178**	**280**	**879**

ports

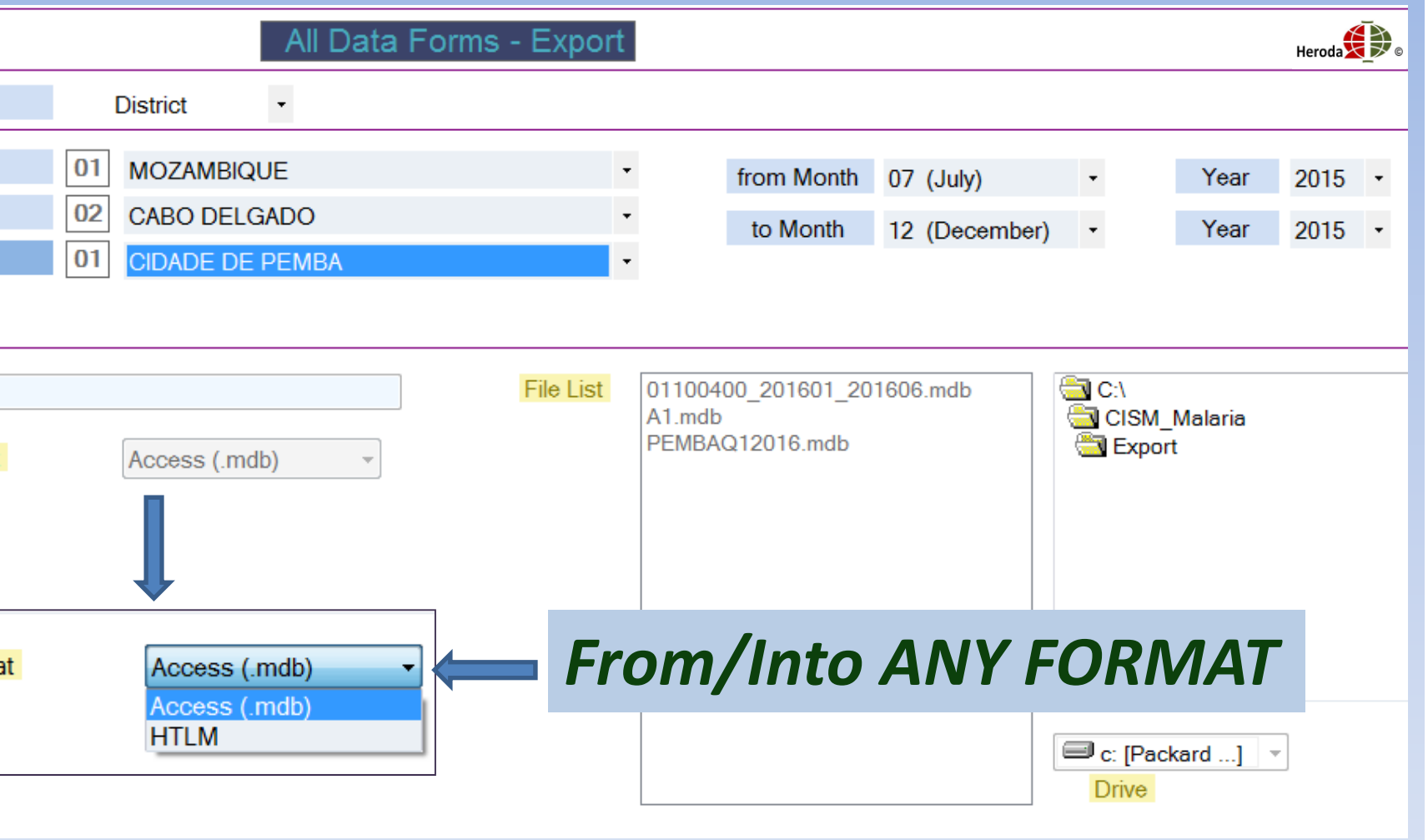
tep 4: and graph generated in Excel



k with other systems

Step 1: select from main menu

k with other systems *From/Into ANY FORMAT*



Technical Info

HERODA **uses** ***common technology***

Front-End: Application for Ms-Windows

Developing tool: Ms-Visual Studio (VB.NET)

Back-End: Ms-Access or SQL

Availability and Distribution

rvices:
- ICT technical support
- HIS advise
- Conception of data sheets and analysis for specific / particular application

livery time: on average 2 weeks per data form

st breakdown:
- data forms configuration
- installation and training
- maintenance and follow-up
- historic data conversion

… any questions?

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