

Swiss Tropical and Public Health Institute Schweizerisches Tropen- und Public Health-Institut Institut Tropical et de Santé Publique Suisse

Associated Institute of the University of Basel

INFORMATION SYSTEMS FOR OPERATING HEALTH INSURANCE SCHEMES

Insurance Management Information System (IMIS)

Presentation to Ministère de la Santè Publique, Rèpublique Du Cameroun

17th October, 2016

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Swiss Centre for International Health, Swiss Tropical and Public Health Institute



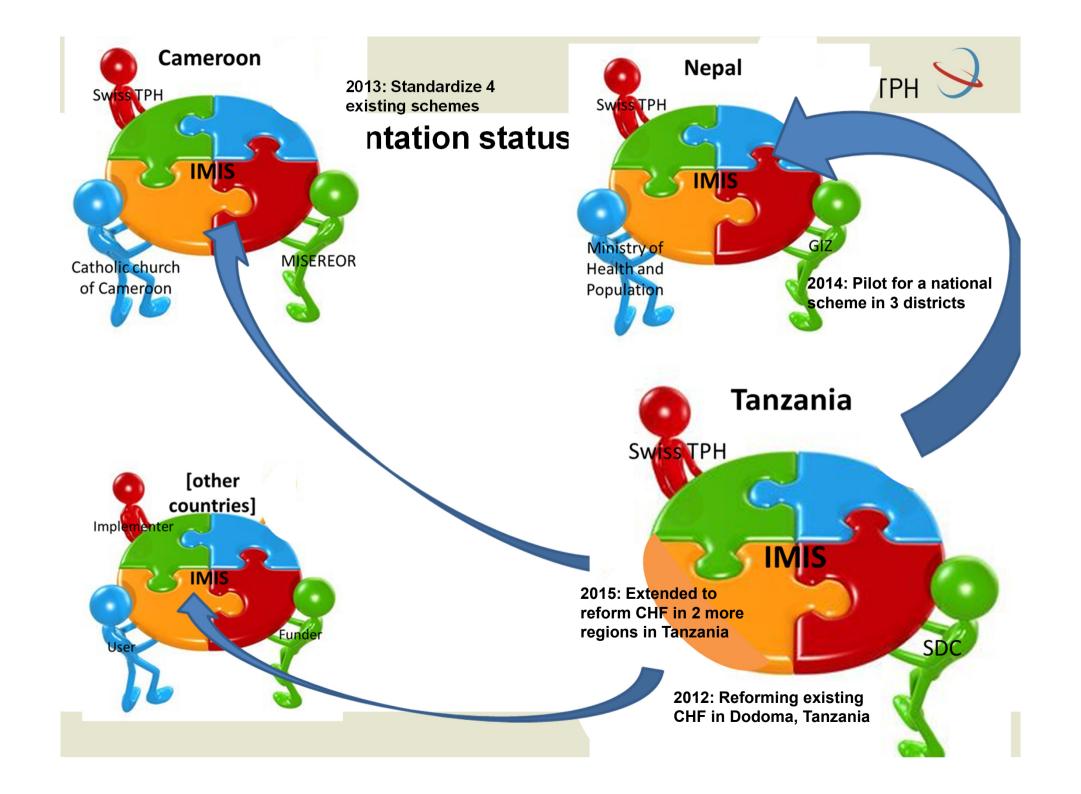
Overview

- Background
- Constructing an insurance scheme
- Enrolment process
- Client service utilization
- Claims processing
- Renewals, Feedback and Policy modifications
- Reporting



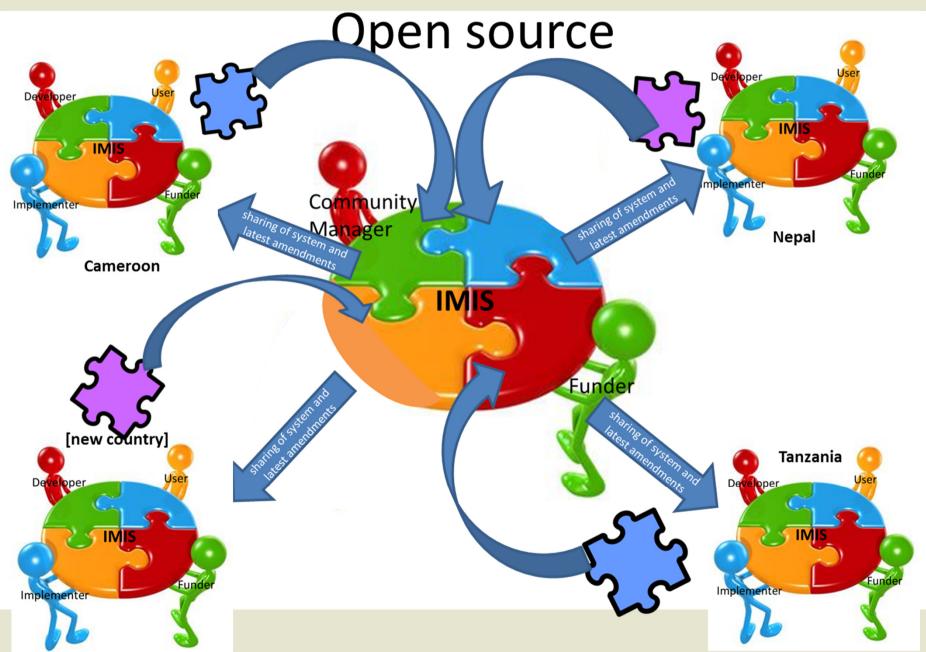
Background

- Swiss TPH in 2011-12 started development of IMIS on an SDC funded Health Promotion and System Strengthening (HPSS) project in Tanzania (ongoing)
- IMIS uses mobile phones for entry of enrolment, renewals, claims and feedback data
- Currently developed using:
 - mobile phone applications: Android 2.3
 - server: MS Server 2008, MS SQL Server 2008
 - clients: any internet browser
- Flexible system currently supporting district based government (Tanzania), centralized government (Nepal) and mutuelle (Cameroon) health insurance models
- Moving towards a national roll out in Nepal and Tanzania
- The system is currently shared with all countries (coordinated by Swiss TPH)
 under a free of cost license agreement granted by SDC and is soon to be
 released as an Open Source application



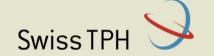
Next steps: IMIS Community







Configurations in IMIS

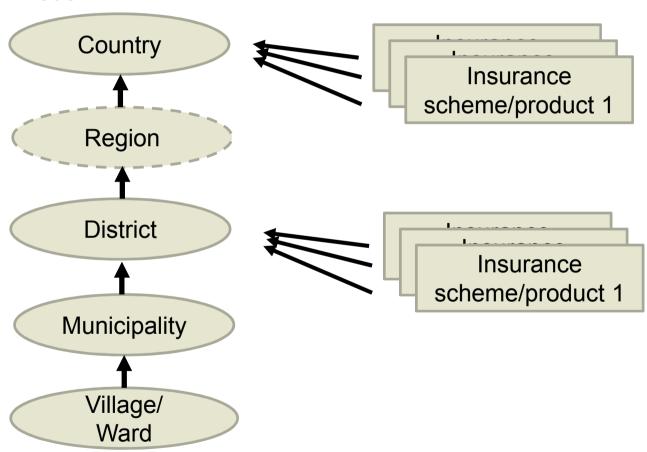


Structure of IMIS: constructing insurance schemes



Locations: One or more (health) insurance schemes?

Territorial model:

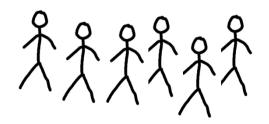


Constructing an insurance scheme: Actors Swiss TPH









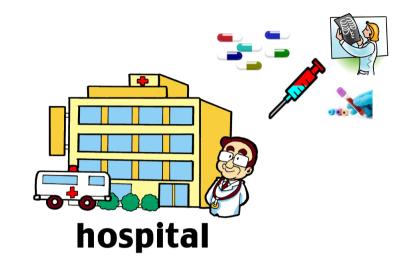


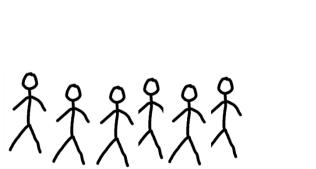


Constructing an insurance scheme: Services and items







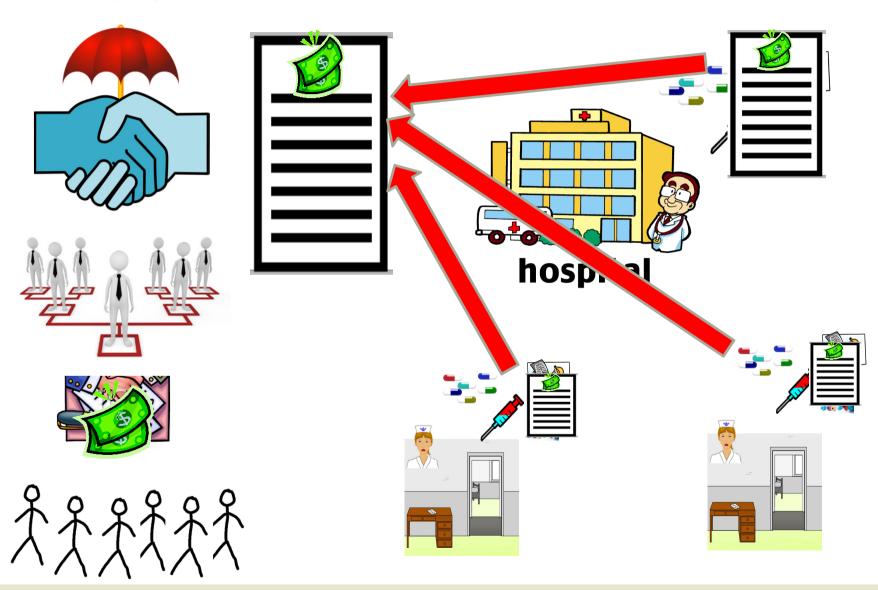






Constructing an insurance scheme: Price list & Product



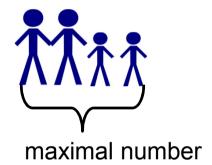




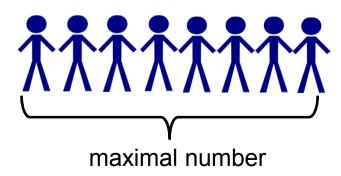
Who is insured? - IMIS approach



Single person (household with one a head only



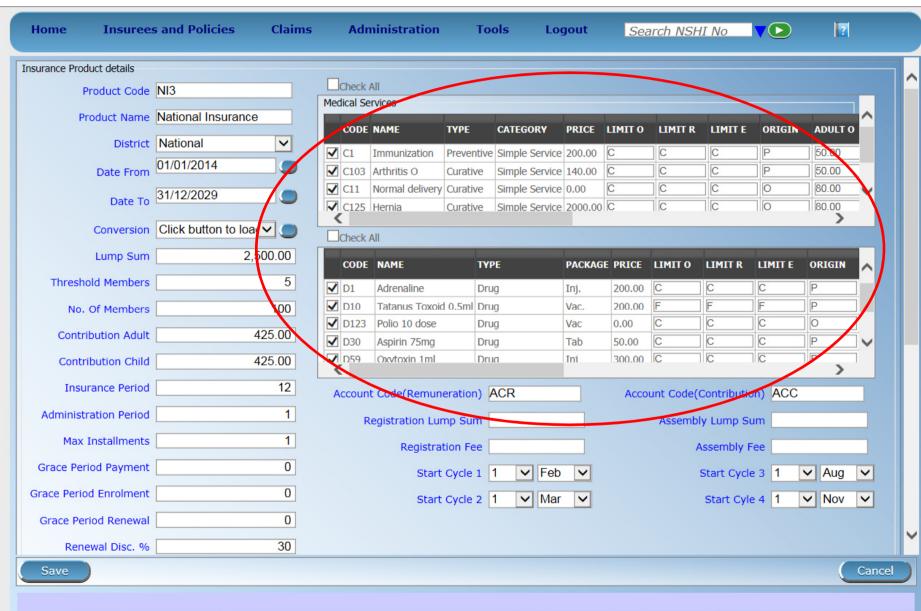
Household/family



Group

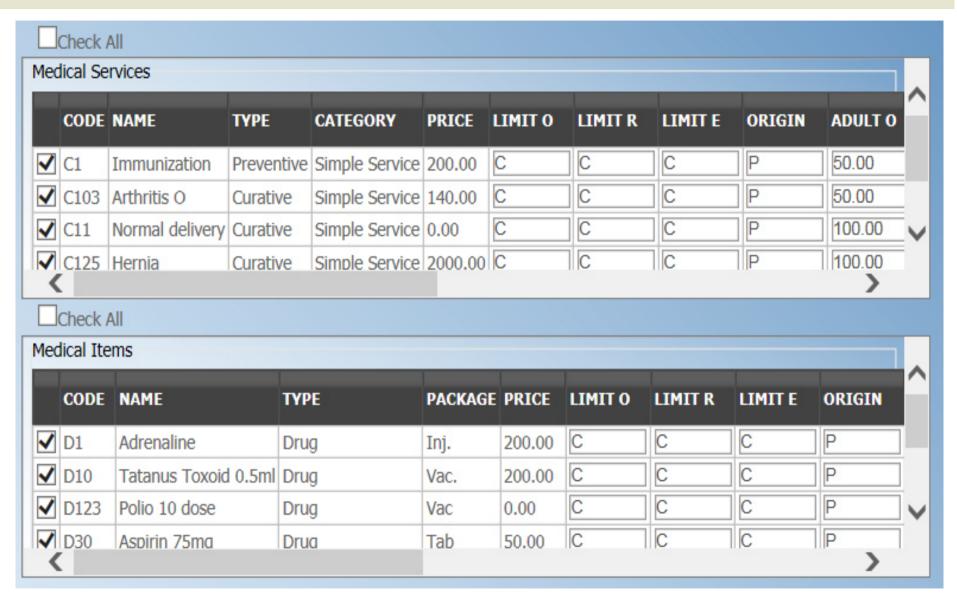
Benefit package configuration – parameters Swiss TPH





Benefit package – Services and Items





Benefit package configuration – Limits



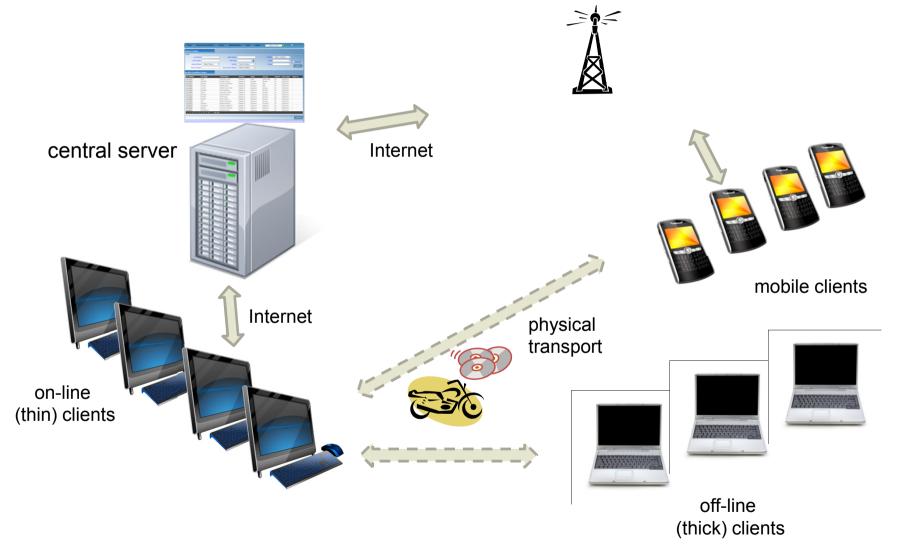
Home Insuree	s and Policies	Claims Admin	istration Tool	s Logout	Search NSHI No	7
Administration Period		1 Regi	stration Lump Sum		Assembly Lump Sum	
Max Installments		1	Registration Fee		Assembly Fee	
Grace Period Payment		0	Start Cycle 1 1	▼ Feb ▼	Start Cycle 3 1	✓ Aug ✓
Grace Period Enrolment		0	Start Cycle 2 1	✓ Mar ✓	Start Cyle 4 1	∨ Nov ∨
Grace Period Renewal		0				
Renewal Disc. %		30				
Renewal Disc. Period		1				
Enrolment Disc. %		20				
Enrolment Disc. Period		2				
	Deductible	Ceiling	Deductab	ole (Hospital) Ceiling	Deductable (Non-	-Hospital) Ceiling
Treatment						
Insuree						
Policy		50,000.00				
Extra Member Ceiling		10000.00				
Maximum Ceiling		100000.00				
Number	Consultations	Surgeries	Deliveries	Hospitalizations	Visits	
Ceiling					_	
Distribution	NONE 🔻	Period Percent	NONE	Period Percent	NONE V	Period Percent
						Ľ
Save						Cancel



Transactions: insurance processing

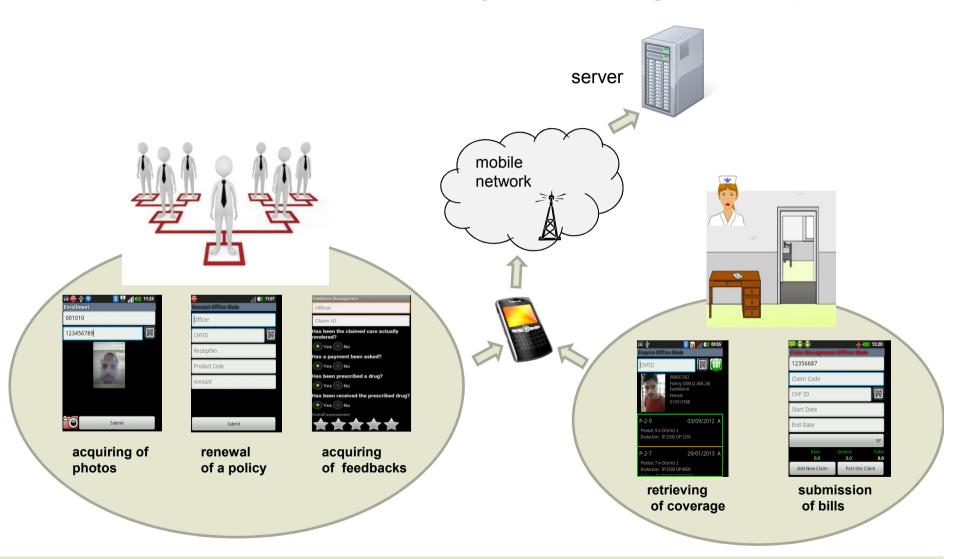


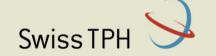
Communication within IMIS





Data transfer in insurance system using mobile phone

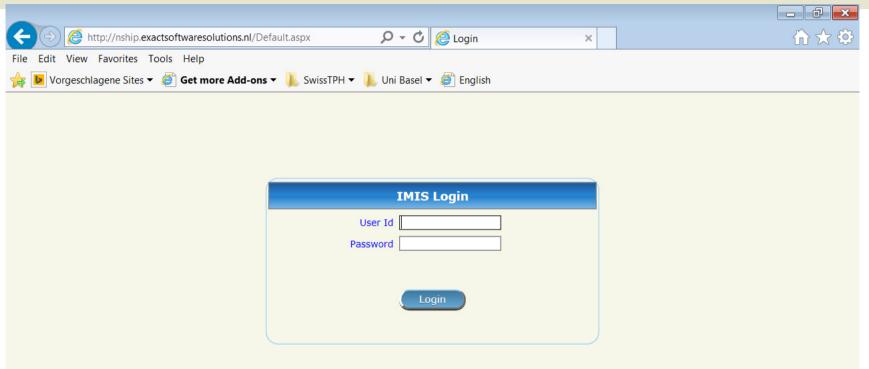




IMIS screen shots

Login Screen





Home page



Home	Insurees and Policies	Claims	Administration	Tools	Logout	Search CHF	·	7
Current User								
Siddharth Sirvasi	tava (siddharth)							
Roles Enrolment Office	AP.							
CHF Manager	3							
CHF Accountant								
CHF Clerk								
CHF Medical Offi	icer							
CHF Administrate	or							
IMIS Administrat	tor							
Receptionist								
Claim Administra	itor							
District								
Chamwino								
Bahi Mpwapwa								
Kondoa								
Kongwa								
Dodoma								
Chemba								
Ushetu DC								
Kishapu DC								
Kahama TC								
Msalala DC								
Shinyaga DC								
Shinyanga MC								
Gairo Morogoro MC								
Morogoro DC								
Mvomero								
Kilosa								
Ulanga								
Kilombero								
Funding								

Enrolment

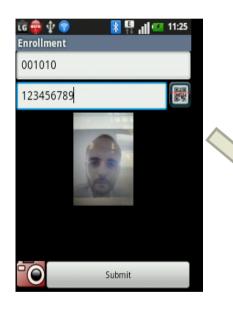
FOMU YA UANDIKISHAJI MWANACHAMA WA CHF **Collect contribution** Jina la wilaya: Kitongoji anapoishi: Tarehe ya kuzaliwa (TT/MM/MM): Jinsia: Me Ke Hali ya ndoa : Ameoa / Ameolewa Hajaolewa / Hajaoa Mtalaka Mjane FOMU YA UANDIKISHAJI MWANACHAMA WA CHF Mkuu wa kaya? Ndiyo Hapana Kiiiii / Mtaa anapoishi: Kitongoji anapoishi: Jinsia: Me Ke Hali ya ndoa : Ameoa / Ameolewa Hajao Mkuu wa kaya? Ndiyo Hapana Jina la wilaya:_ Jina la ukoo: Majina mengine: Tarehe ya kuzaliwa (TT/MM/MM):___/__/ 20 Tarehe (TT/MM/MM): ___/__/ 20 Jinsia: Me ke Tarehe ya kuanza huduma (TTMM/MM): ONYESHA KITAMBILISHO HIKI UNAPOENDA **KUPATA MATIBABU** Jina la wilaya:_ Jina la wilaya:_ Jina la ukoo: _ Jina la ukoo: Majina mengine: Majina mengine: Tarehe ya kuzaliwa (TT/MM/MM):___/_ Tarehe ya kuzaliwa (TT/MM/MM):_ Tarehe (TT/MM/MM): ___/__/ 20 Tarehe (TT/MM/MM): ___/__/ 20 Jinsia: OMe Oke Jinsia: OMe Oke Tarehe ya kuanza huduma (TTMM/MM): Tarehe ya kuanza huduma (TTMM/MM): ONYESHA KITAMBILISHO HIKI UNAPOENDA KUPATA MATIBABU ONYESHA KITAMBILISHO HIKI UNAPOENDA KUPATA MATIBABU

t form	Swiss TPH
District: Nobile Ph: In number of Household Head. No -> In other Names: Other Name	Sample enrolment form turned into an insurance card Jina la wilaya: Jina la ukoo: Majina mengine: Tarehe ya kuzaliwa (TT/MM/MM): Jinsia: Me ke Tarehe ya kuanza huduma (TTMM/MM): Namba ya utambulisho (Pre printed) ONYESHA KITAMBILISHO HIKI UNAPOENDA



Mobile phone applications- Enrolment

1.acquiring of a photo of an insuree by a mobile phone



2.sending it on the central server

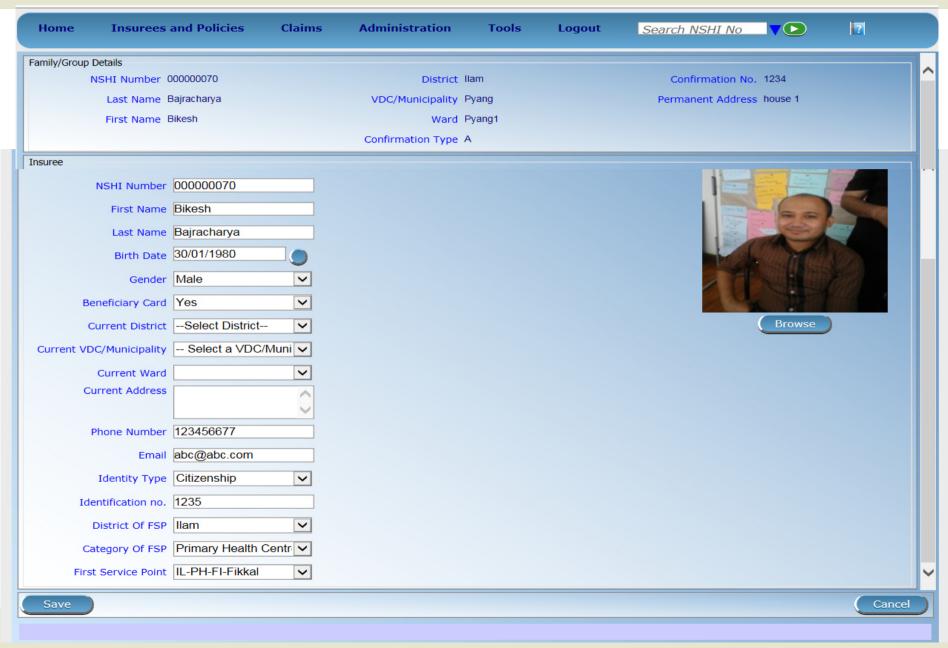


3.assigning it to the record of the insuree (automatically)



Enrolment of member





HH Enrolment



	Insurees and F	Policies	Claims	Administration	n Tools	Logout	Search	NSHI No	▼	7
amily/Gr	oup 🚻 🖟	/ X								
NSH	I Number 000000070			District Ilam		Confirma	tion Type A		Permanent	Address
L	ast Name Bajracharya	а	VDC/M	unicipality Pyang		Confirm	ation No. 123	34	house 1	
F	irst Name Bikesh			Ward Pyang1						
nsurees	# .	/ X								
SHI NO	LAST NAME		FI	RST NAME		GENDER	BIRTH	DATE	BENEFICIARY	CARD
00000070	Bajracharya		Bi	kesh		M	30/01/1	.980	✓	
08997634	Sharma		Sa	bin		M	02/02/1	.950	✓	
10379644	Khanal		Sh	niva		M	02/02/1	999	✓	
21769403	Basnet		Ra	am		M	03/03/1	.950	✓	
NROL DATE	EFFECTIVE DATE	START DATE	EYDIRV DATE	PRODUCT	ENROLMENT ASSIST	TANT DOL	TCV STATUS	POLTCY VALUE	VALID FROM	VALIDI
	01/08/2014	START DATE 01/08/2014	EXPIRY DATE 31/07/2015	PRODUCT NI2	ENROLMENT ASSIST Karki Ram	Acti	ICY STATUS	POLICY VALUE 3,350.00	VALID FROM 17/11/2014	VALID TO
0/06/2014										VALID TO
	01/08/2014									VALID TO
0/06/2014	01/08/2014 ions	01/08/2014	31/07/2015					3,350.00		VALID TO
ontributi	01/08/2014 ions	01/08/2014	31/07/2015 BY	NI2	Karki Ram		ive	3,350.00	17/11/2014	VALID T
ontributi	01/08/2014 ions	01/08/2014	31/07/2015 BY	NI2 AMOUNT	Karki Ram PAY METHOD		RECEIPT	3,350.00	17/11/2014 CATEGORY	VALID T
ontributi	01/08/2014 ions	01/08/2014	31/07/2015 BY	NI2 AMOUNT	Karki Ram PAY METHOD		RECEIPT	3,350.00	17/11/2014 CATEGORY	VALID TO
ontributi	01/08/2014 ions	01/08/2014	31/07/2015 BY	NI2 AMOUNT	Karki Ram PAY METHOD		RECEIPT	3,350.00	17/11/2014 CATEGORY	VALID TO

Product Selection



Home Insurees and	Policies Claims	Administration	Tools	Logout	Search NSHI No	▼▶	7
Family/Group Details							
	Number 000000070				District Ilam		
La	ast Name Bajracharya			Ward Pyang1			
Fir	rst Name Bikesh		VDC/	/Municipality Pyang			
Phone	Number 123456677				mation Type A		
Policy Details							
Enrolment Date 20/	/06/2014					Policy Stat	tus
Product NI2	2 - National Insurar						
Effective Date 01/						Active	
						rictive	
Start Date 01/	·						
Expiry Date 31/	/07/2015						
Enrolment Assistant 11 -	- Karki Ram						
Po	olicy Value	Contribution Paid	Balance				
	3350.00	3350.00	0.0	0			
G	eneral	In-Patient	Out-Patient				
Deductible _	0.00	0.00	0.0	0			
Remunerated Health Care	140.00	140.00	0.0	0			
							Cancel

Payment Information

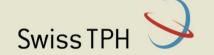


Home Insurees	and Policies	Claims	Administration	Tools	Logou	t Searc	h NSHI No	▼ ▶	7
	NSHI Number 000 Last Name Baj First Name Bik Phone Number 123	jracharya esh							
	23/09/2014	3,350.00 r1234	Policy Value Contribution	3,350.00	etails Balance Policy Status Active	0.00			
Save									Cancel

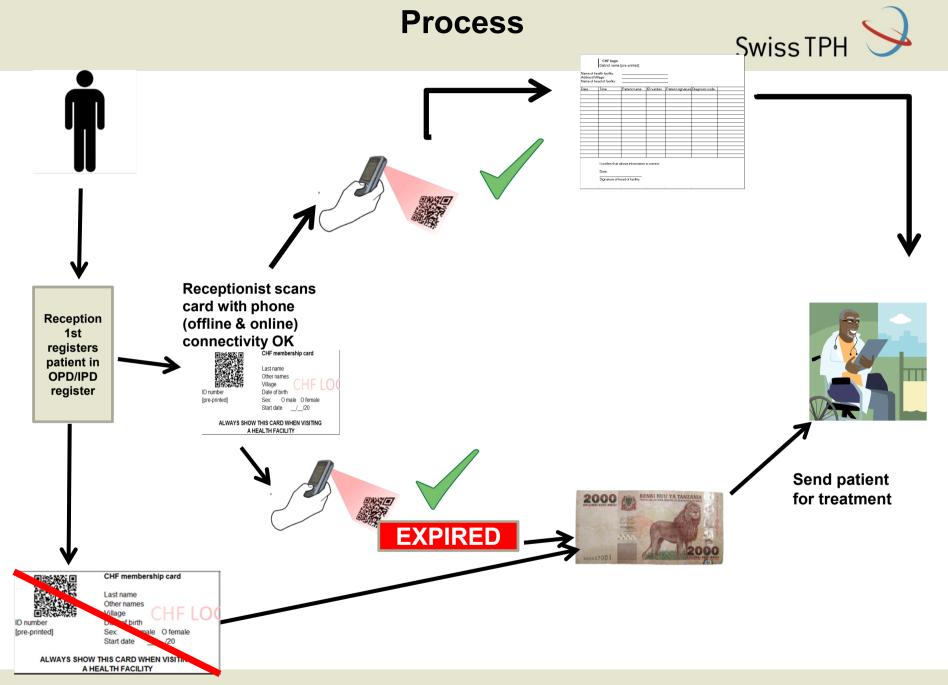


Upcoming features

Mobile payment for contribution/premium collection and health facility payments



Client Service Utilization

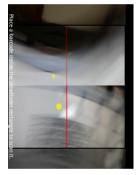




Mobile phone applications- Receiving Patients

1. insuree's ID number read by phone through QR code



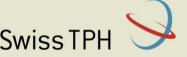


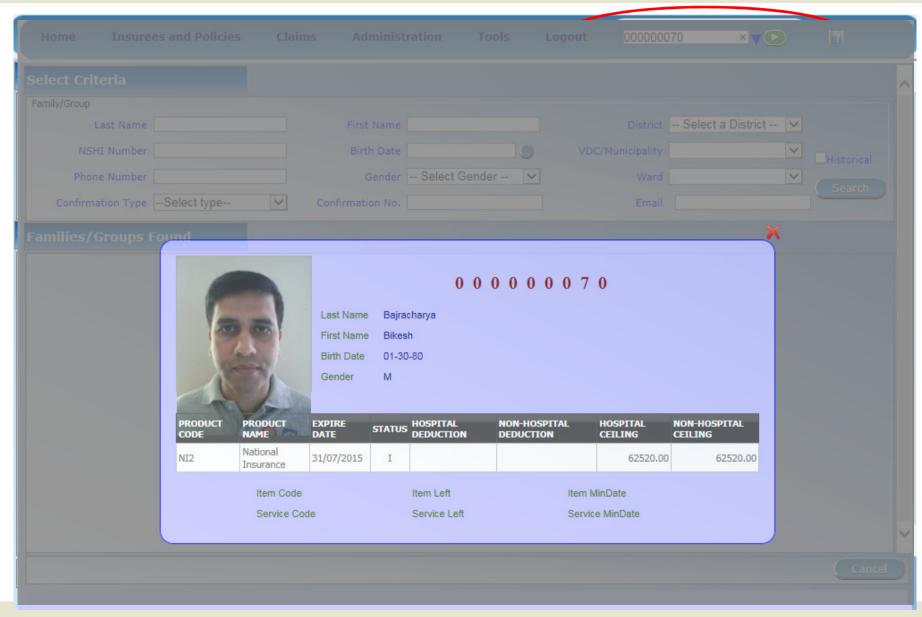
2.sending it on the central server



3.retrieving photo and information on coverage

Online/Offline querying of clients Swiss TPH







Upcoming features

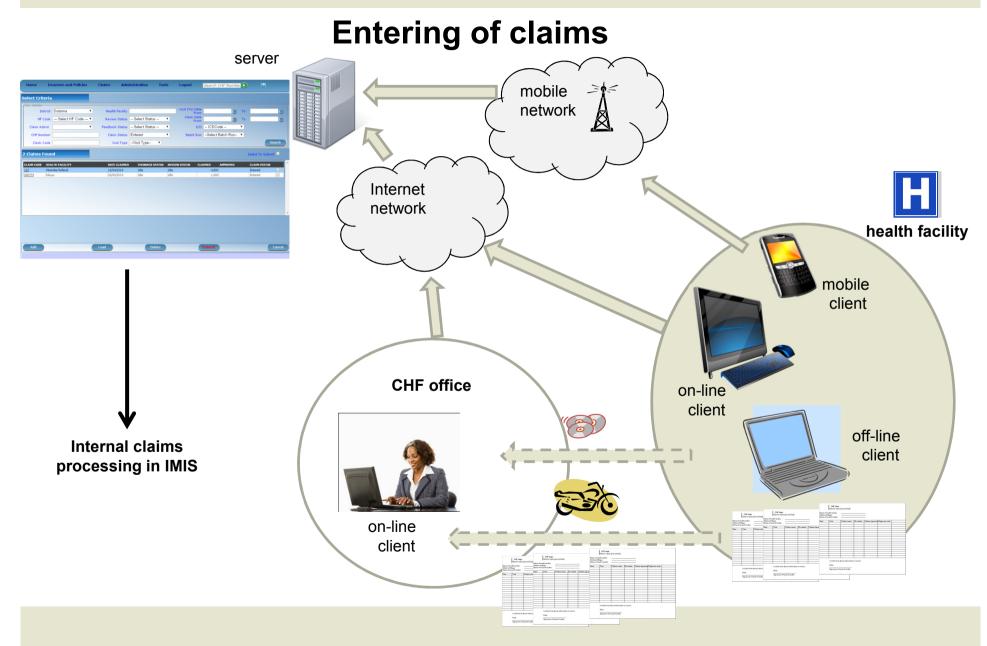
Exploring other solutions for clients to make enquiries on their own status (mainly Tanzanian context):

Client querying through USSD service



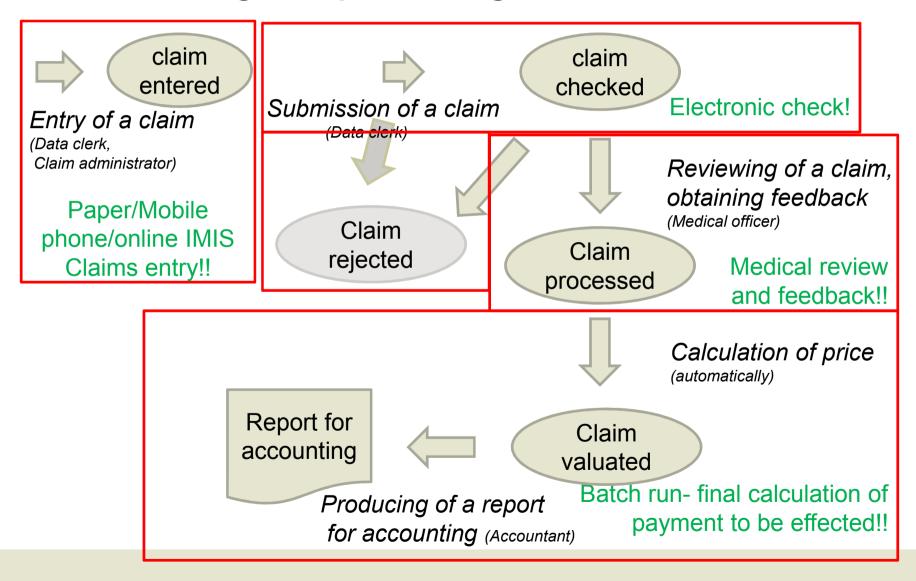
Claims Processing







Stages of processing of a claim



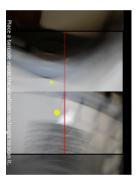
Claims Entry



Mobile phone applications- Entering claims

1. insuree's ID number read by phone through QR code

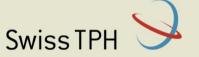




3.sending it on the central server



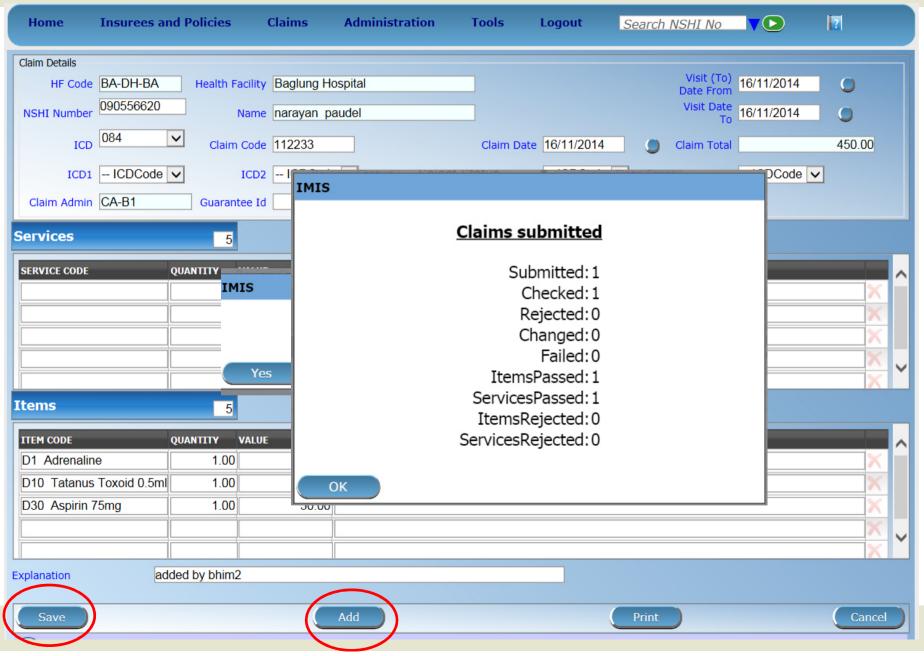
Online/offline entry of claims Swiss TPH



Home	Insurees and Policies	Claims	Administration	Tools	Logout	Search CHF) 7
Select Criteria		Health Facility Claims						
Claim Details		Review			Visit (To) Date			
	District Chamwino F Code 00201 - Chamwino H V	Batch Run	ect Statu	s 🗸	From Claim Date From) То	
Claim A		Feedback	Status Select Statu	s 🔻	ICD	ICDCode	~	
CHF N	umber	Claim	Status Entered	~	Batch Run	Select Batch Run	ı V	
Clain	n Code	Vis	it TypeVisit Type	~				Search
Claims Fo	ound							
								^
								<u> </u>
Add								Cancel

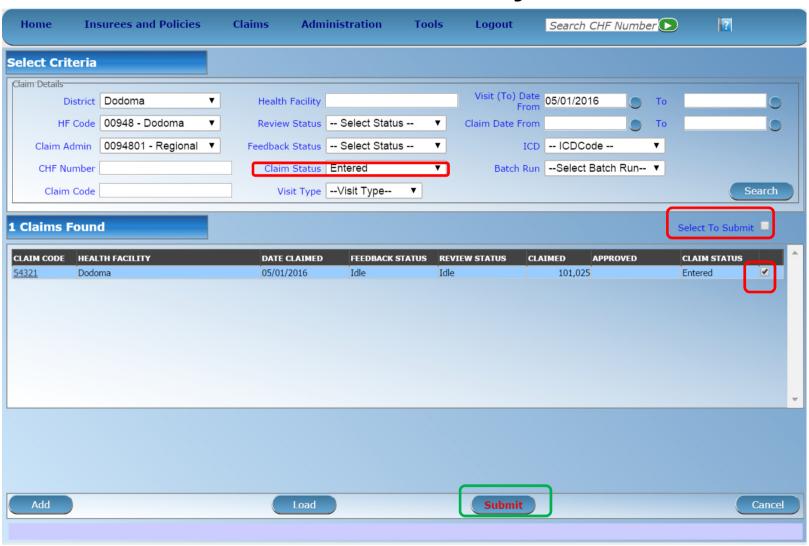
Entry of a claim

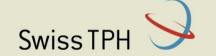






Submission of claims for first level system check

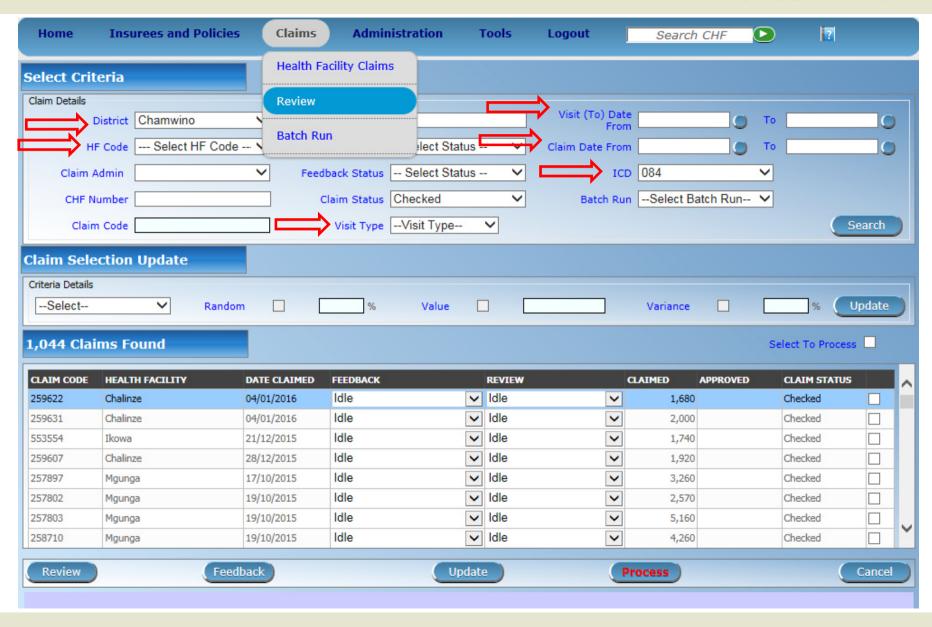




Claims Review

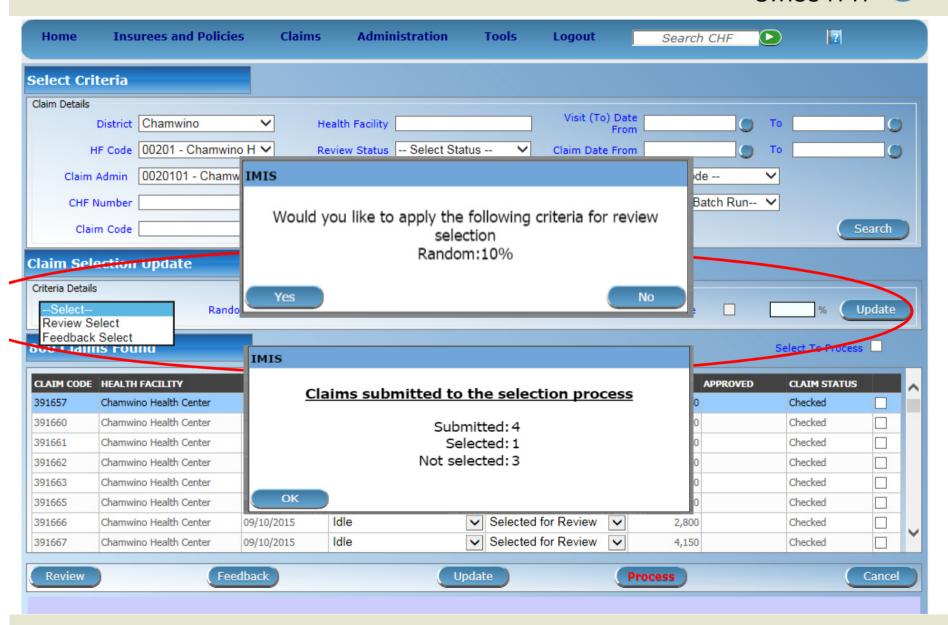








Selection for medical review and feedback - Ibwiss TPH



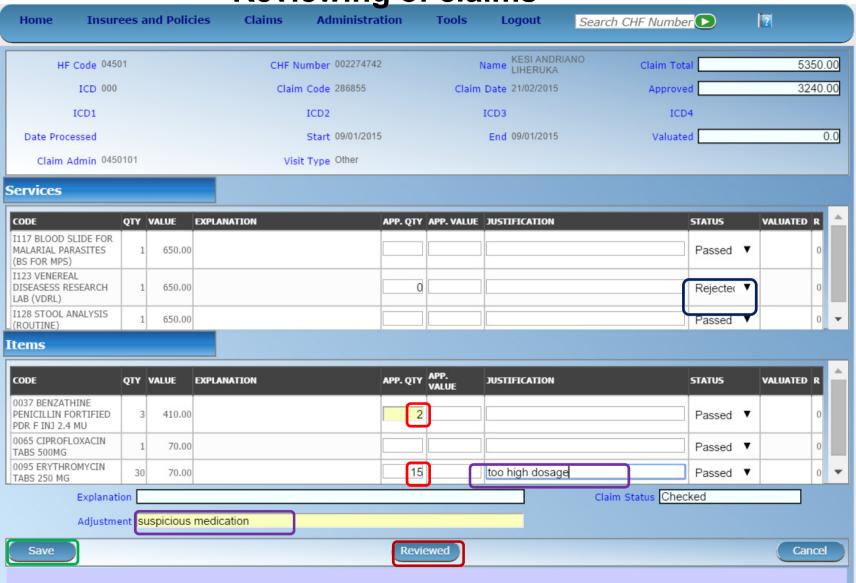




Home	Insurees and Policies	. Claims	Administration	Tools	Logout	Searc	h CHF					
Select Criteria												
Claim Details					492286-0							
	District Chamwino	✓ He	alth Facility		Visit (To)	Date From		То				
н	HF Code 00201 - Chamwino	H V	view Status Select Stat	tus 🗸	Claim Date	From		То				
Claim	Admin 0020101 - Chamwi	ino 🗸 Feedb	pack Status Select Stat	tus 🗸		ICD ICDCod	de 💉	2				
CHF N	Number	c	laim Status Checked	~	Batcl	RunSelect E	Batch Run N	/				
Clair	m Code		Visit TypeVisit Type	~					Search			
Claim Selection Update Criteria Details Select												
800 Claiii	ns Found							Select To Proc	ess 🗆			
CLAIM CODE	HEALTH FACILITY	DATE CLAIMED	FEEDBACK	REVIEW		CLAIMED	APPROVED	CLAIM STAT	US			
391657	Chamwino Health Center	09/10/2015	ldle	✓ Selected	for Review	3,780		Checked				
391660	Chamwino Health Center	09/10/2015	ldle [✓ Selected	for Review	5,130		Checked				
391661	Chamwino Health Center	09/10/2015	ldle [✓ Selected	for Review	3,180		Checked				
391662	Chamwino Health Center	09/10/2015	ldle [✓ Selected	for Review	4,330		Checked				
391663	Chamwino Health Center	09/10/2015	ldle [✓ Selected	for Review	3,180		Checked				
391665	Chamwino Health Center	09/10/2015	ldle [✓ Not Select	cted	820		Checked				
391666	Chamwino Health Center	09/10/2015	ldle [✓ Selected	for Review	2,800		Checked		V		
391667	Chamwino Health Center	09/10/2015	ldle [✓ Selected	for Review	4,150		Checked		*		
Review	Feed	lback	Up	date		Process			Cancel			

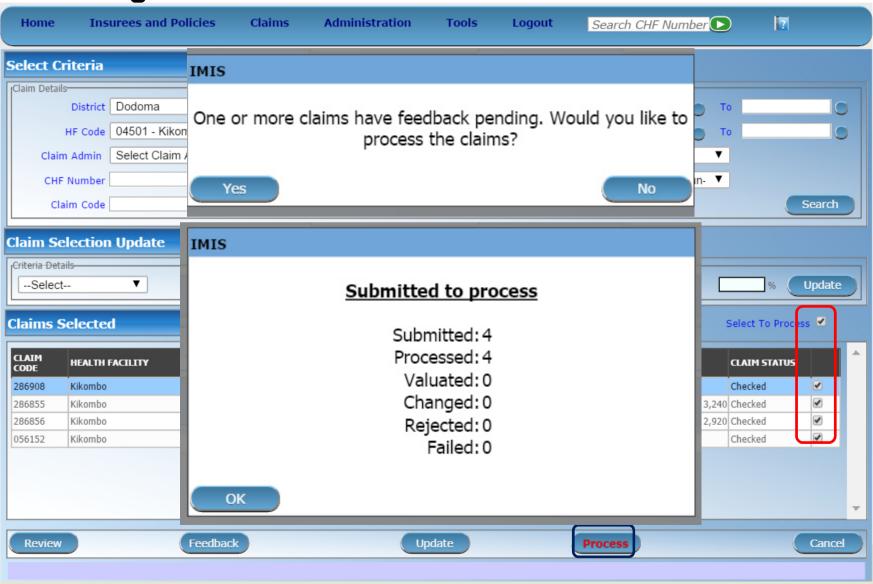


Reviewing of claims



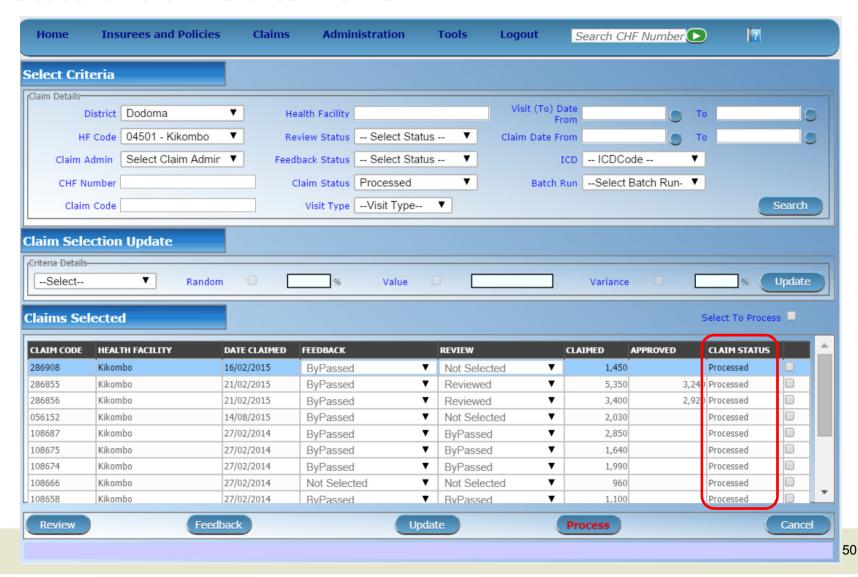


Processing of reviewed claims



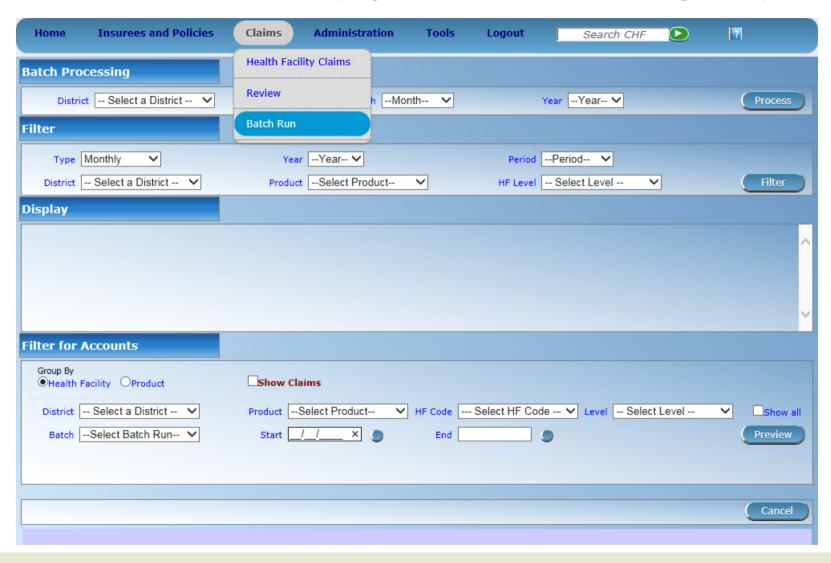


State of claims after review



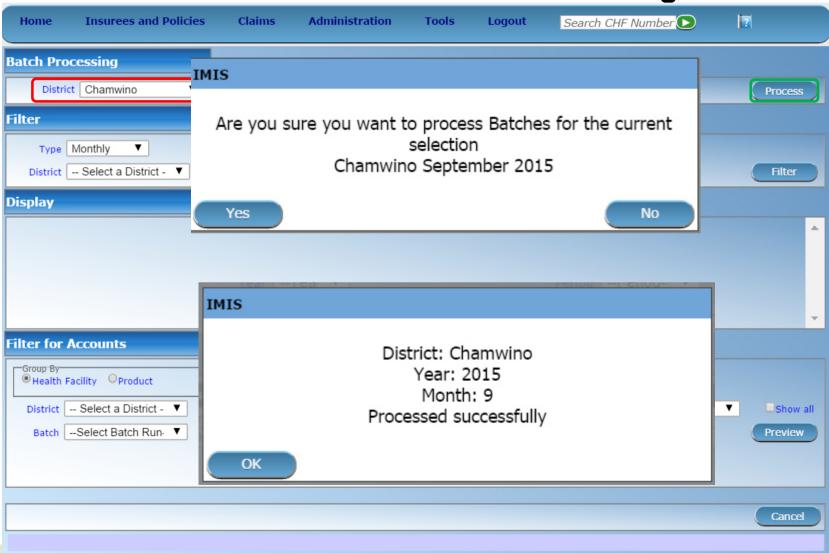


Batch run - calculate final payment to facilities for given period



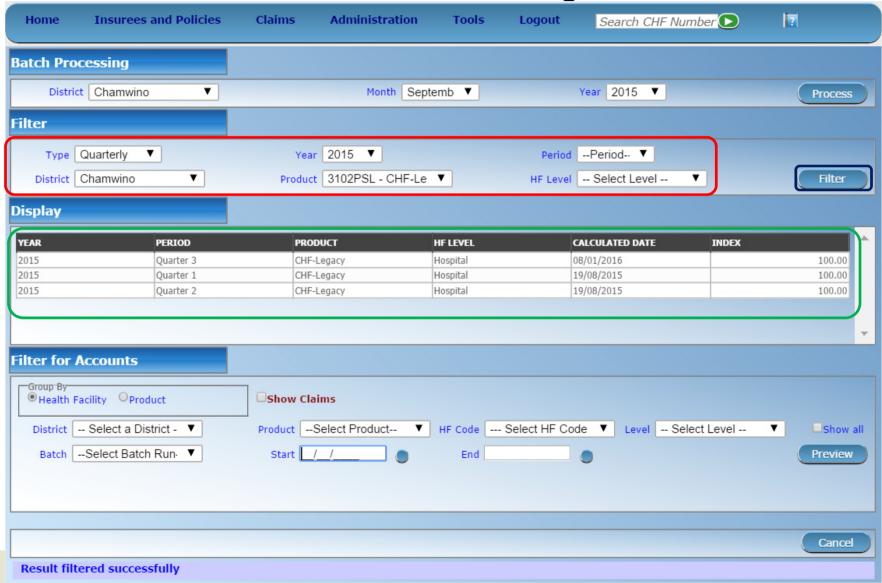


Creation of batches/link to accounting



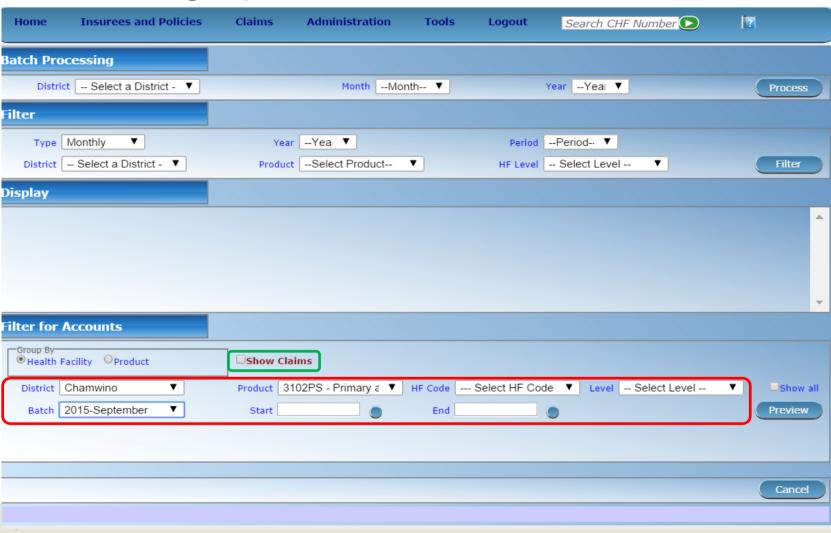


Creation of batches/link to accounting – list of batches



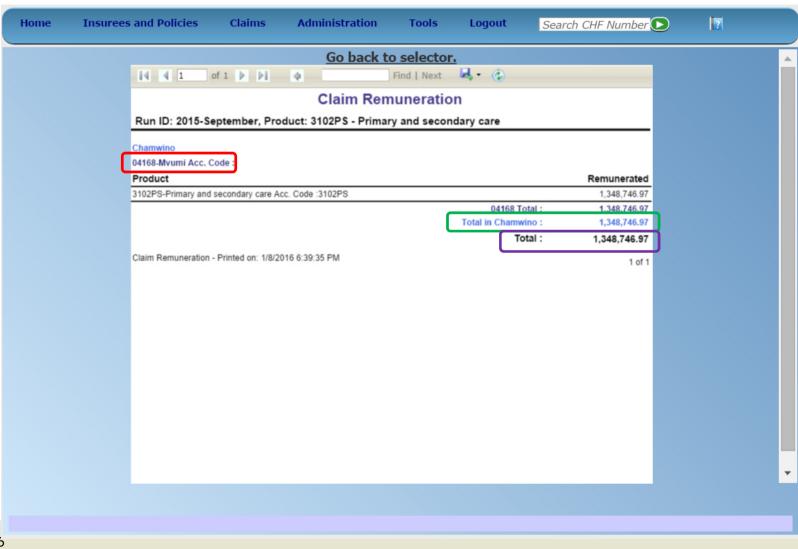


Creation of batches/link to accounting - generating accounting report



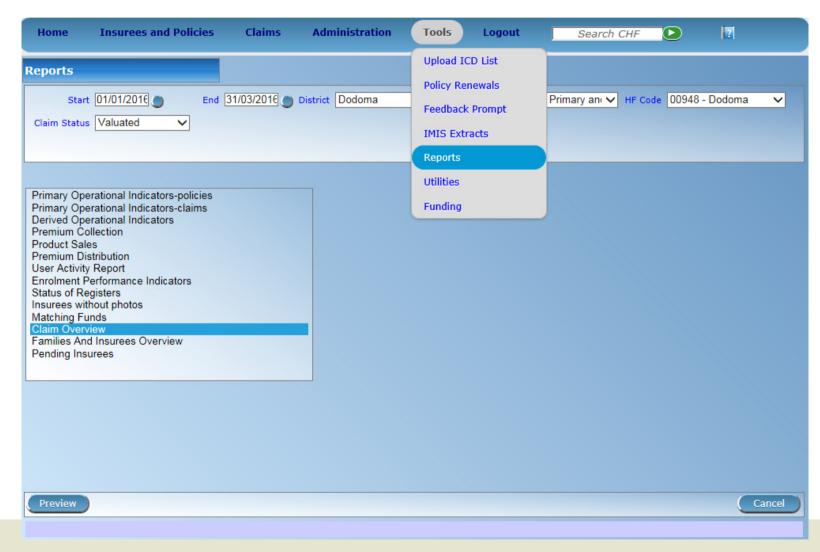


Creation of batches/link to accounting - report for accounting



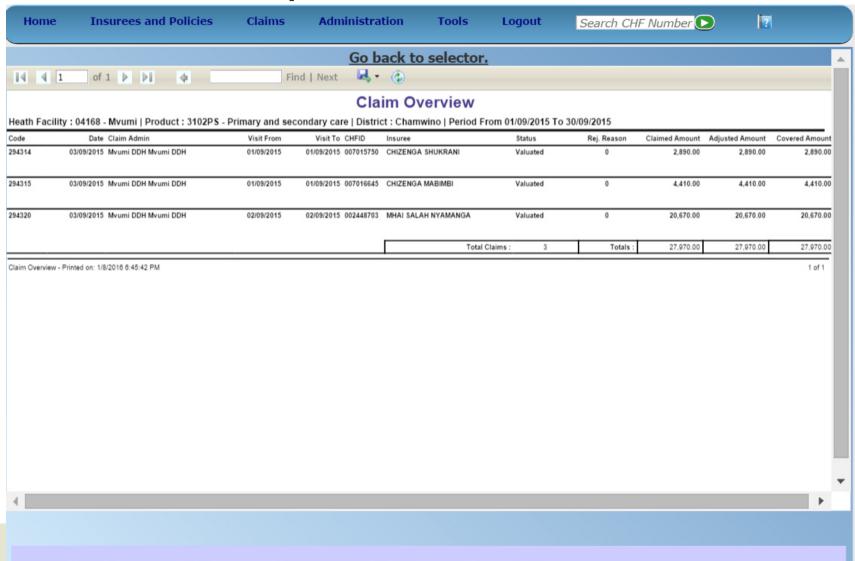


Claims Overview for facilities





Claim Overview report



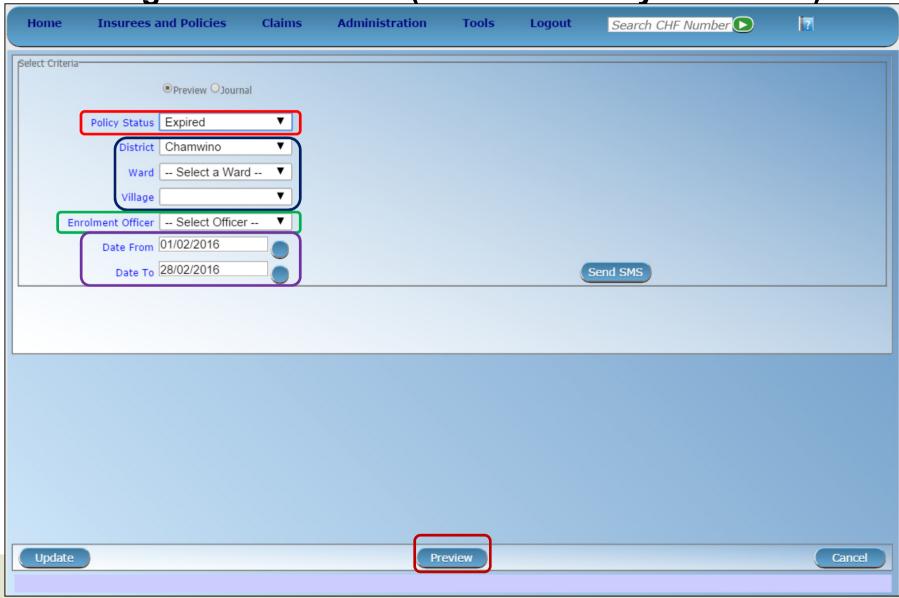


Renewals & Feedback

Process flow SwissTPH Feedback trigger server mobile Network sms Renewal mobile trigger Network data transfer CHF office Print out of generated Renewal list

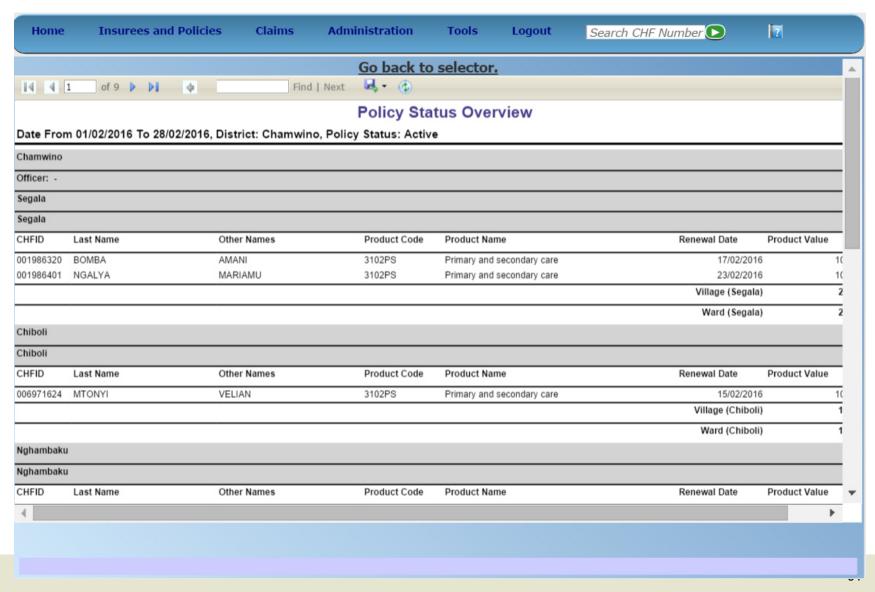


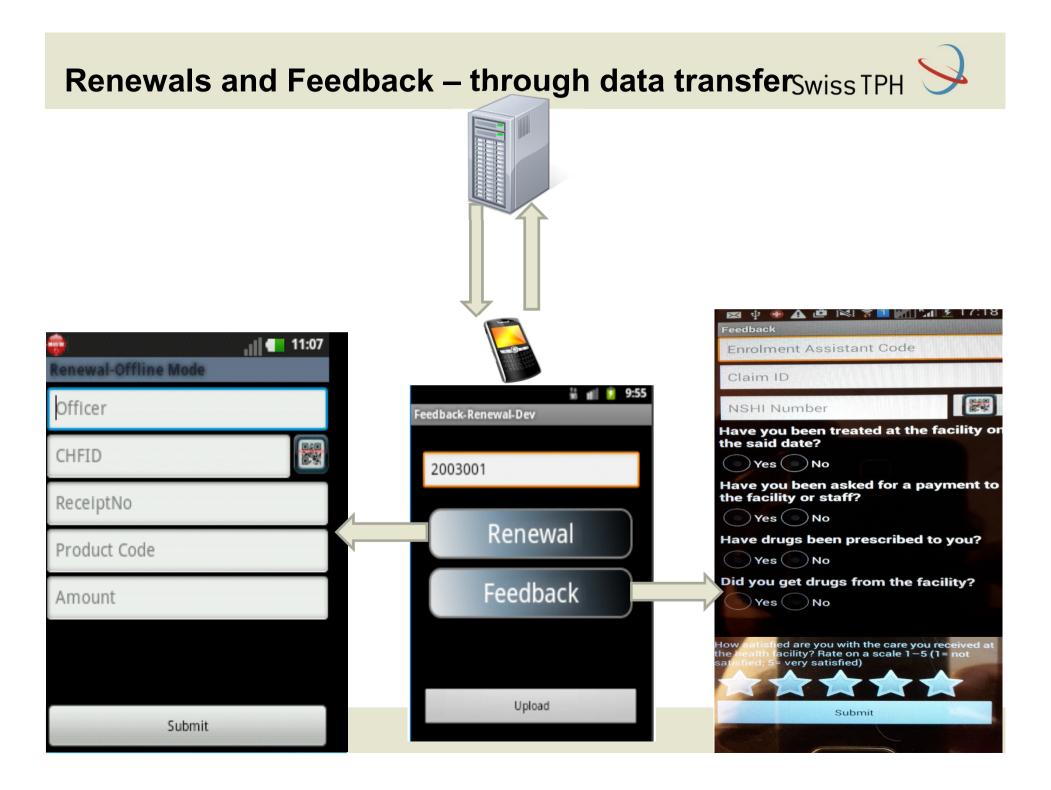
Generating list of renewals (Tools -> Policy Renewals)





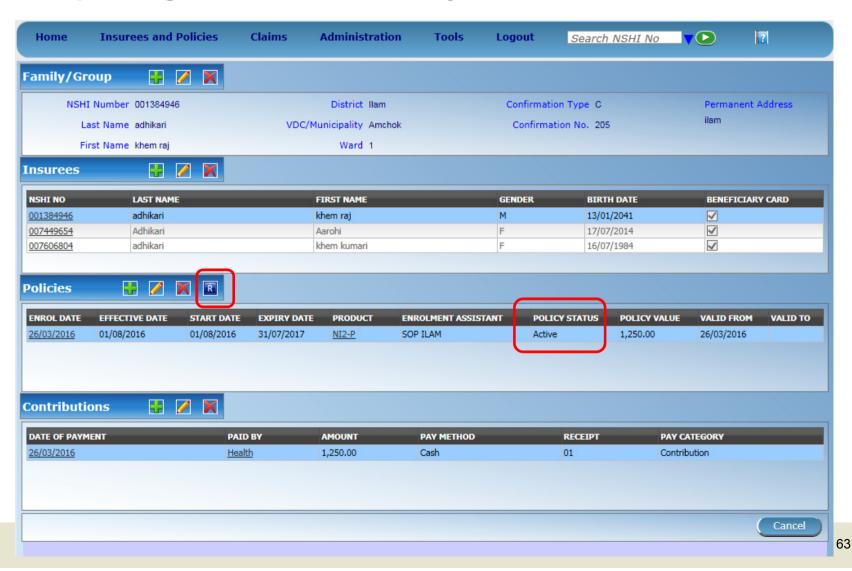
Print out of list of renewals

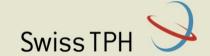






Completing renewals in the system





Upcoming features

Exploring other ways in which client can renew while balancing the disincentives for the active enrolment structure on the ground:

Clients renewing through USSD service



Modification of policies

Conditions and procedures

Conditions:

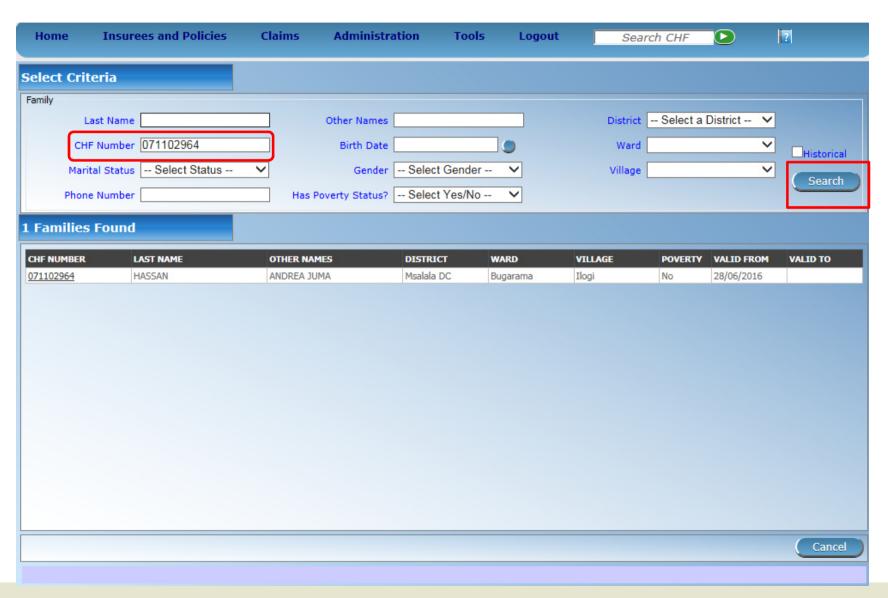
- Death
- Change of HH head or HH details
- New born
- In migration (eg. marriage)
- Out migration (eg. moving out of country for work)

Each schemes define their own rules/procedures on:

- Modification under which of these conditions is allowed
- When can changes be made anytime or at time of renewal
- What impact does it have on benefit package (price of product, ceilings, etc.)

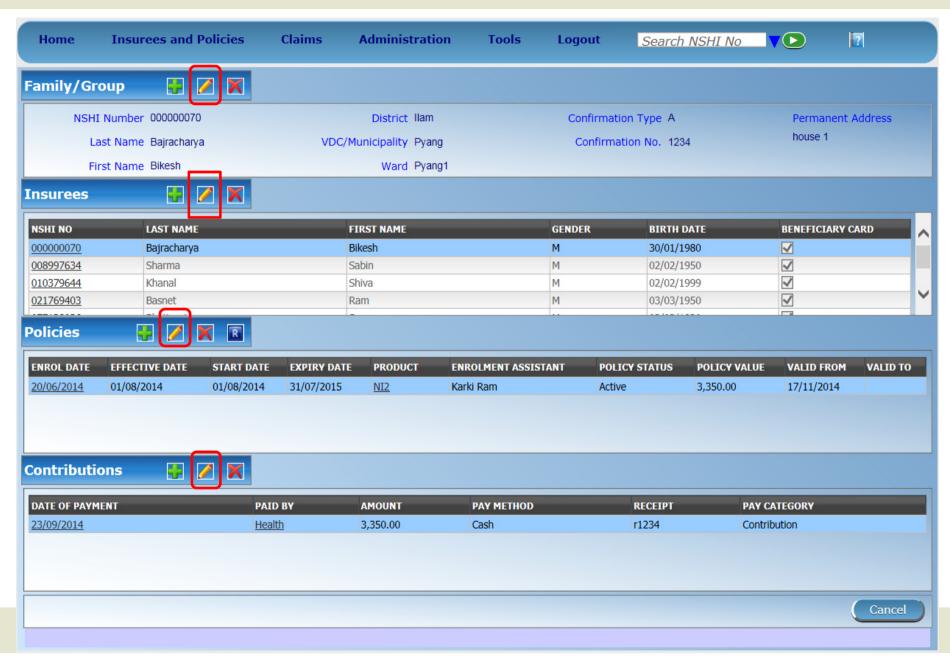
Locate family





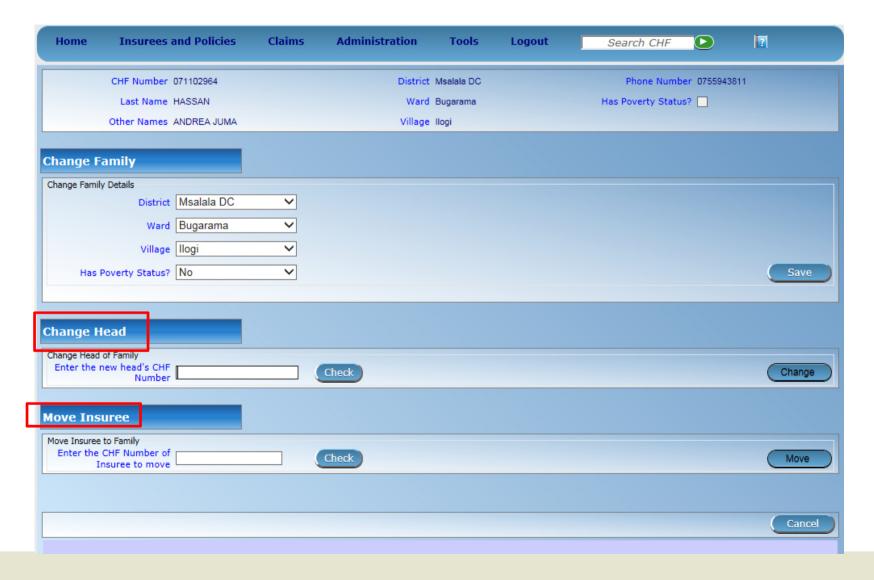
Modify







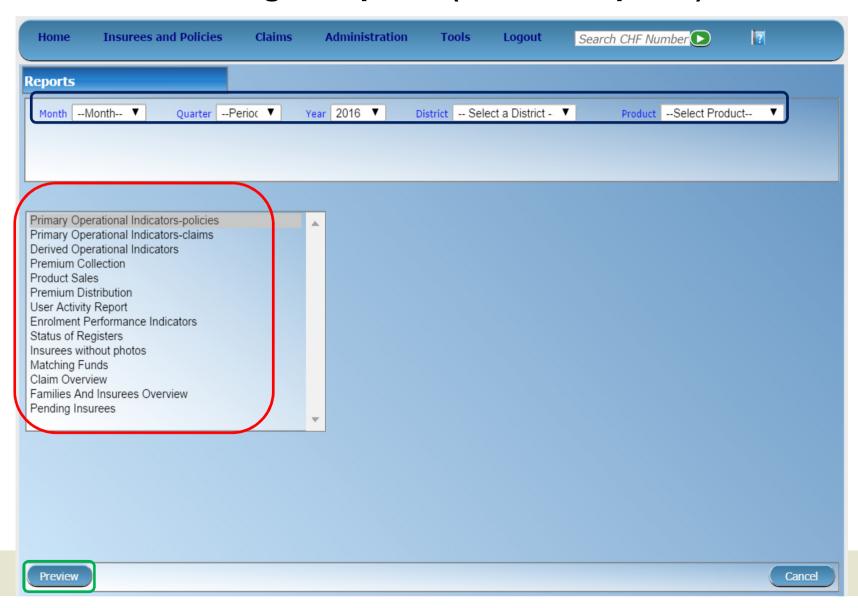
Transfers of members



Reporting

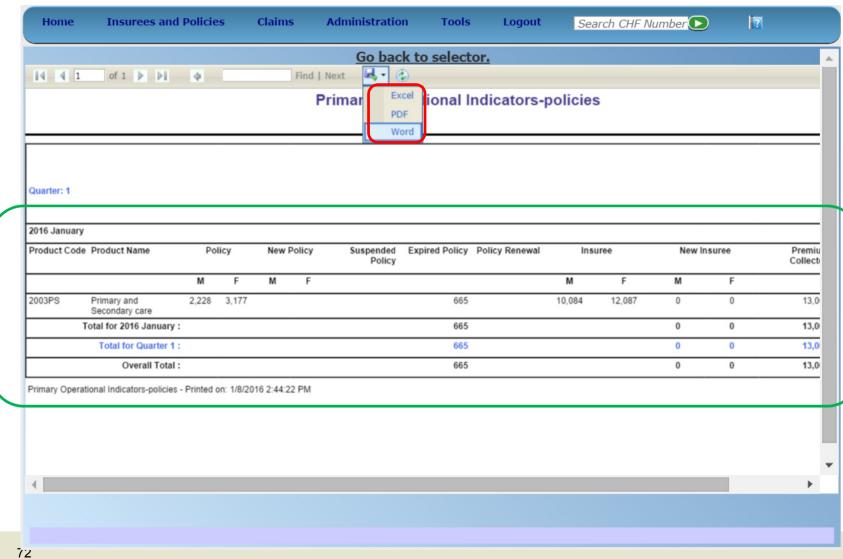


Generating of reports (Tools->Reports)





Saving reports





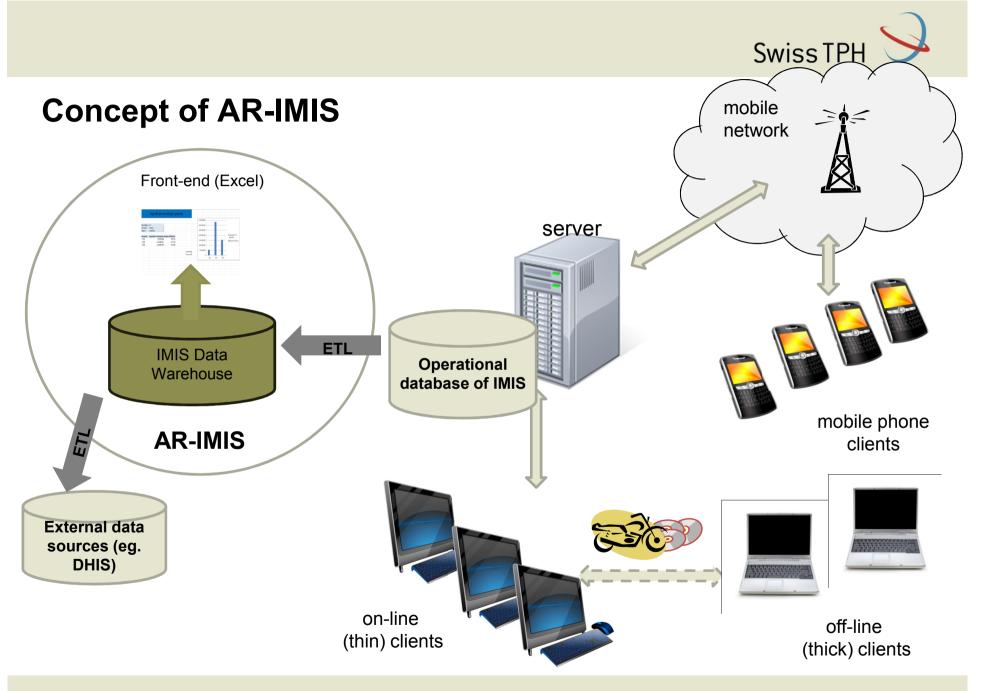
Types of reports

Reports on management of families, insurees, policies, premiums:

- Primary Operational Indicators-policies
 - -statistics on the number of enrolled insurees, policies and collected premiums
- Derived Operational Indicators
- -renewal ratio, growth ratio
- Premium Collection
 - -overview of individual payments of premiums
- Product Sales
 - -overview of individual sales of a product
- Premium Distribution
 - -amount of premiums allocated to months
- Enrolment Performance Indicators
 - -portfolio of insurees and policies according to enrolment officers
- Insurees without photos
 - -list of insurees without assigned photo
- Matching Funds (reporting requirement to receive matching grants)
- Families and Insurees Overview
 - -list of families and dependents enrolled with specified period
- Pending Insurees



Additional reporting through Analytic & Reporting (excel based) Tool





Implementation approach

Definition of scheme structure and benefit package

Definition of standard operating procedures

Definition of software requirement specifications

System modification (where applicable)

Installation, scheme configuration & creation of support structure

User training & technical capacity building training

System roll out





http://www.swisstph.ch/de/imis.html