Data Management in Practice: Database and Reporting System for Voluntary Counseling and Testing Center in Cambodia

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Background

- In the last 6 years number of VCCT sites in Cambodia increased dramatically.

- Necessity to monitor the activities of VCCT

- The existing VCCT tools needed to be simplified and standardized in order to get accurate, timely information from the sites.

Number of VCCT Sites 1995- 2006 (End of June)
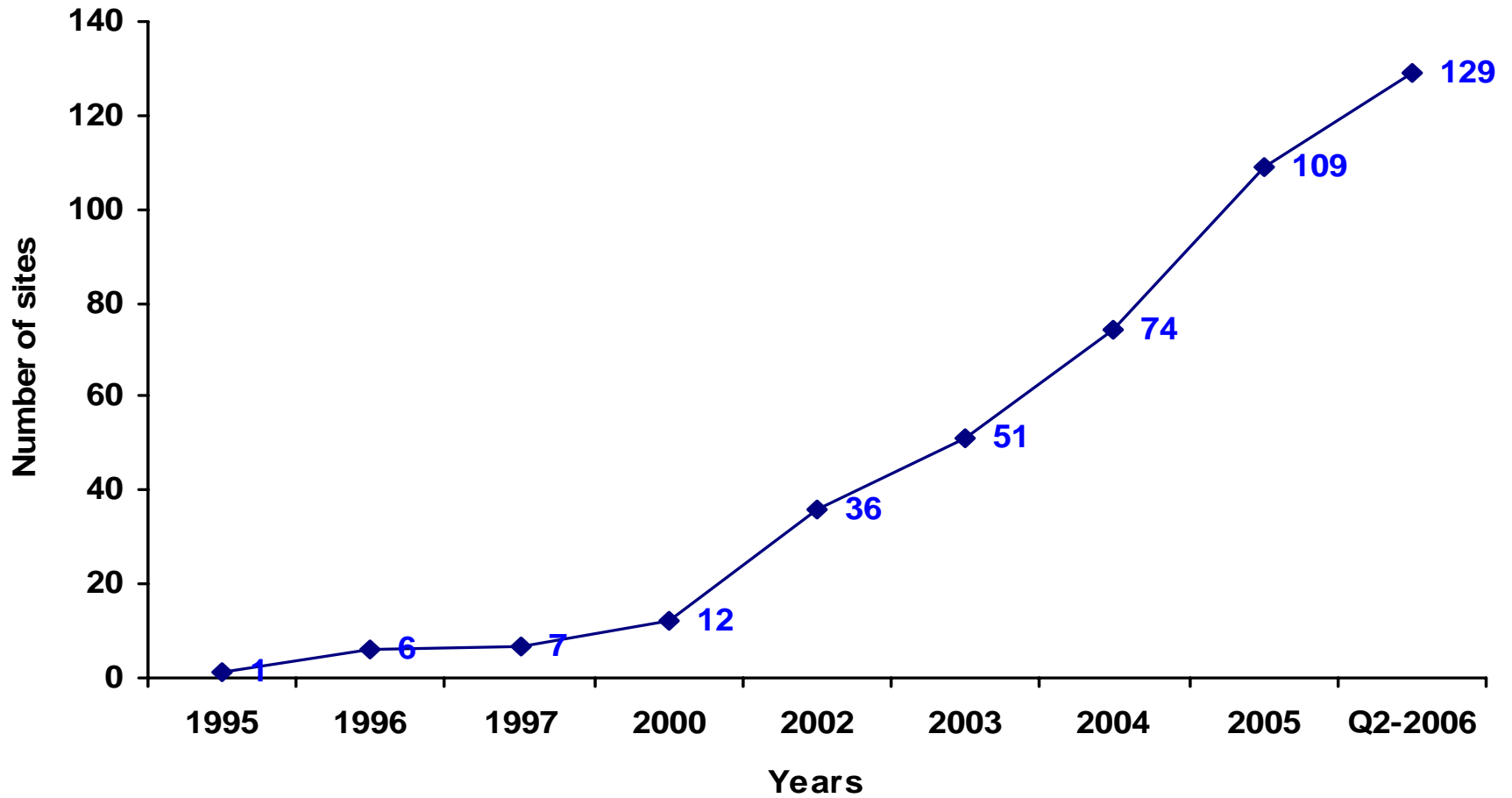
Number of VCCT (Govn't site) Sites currently equipped with computer
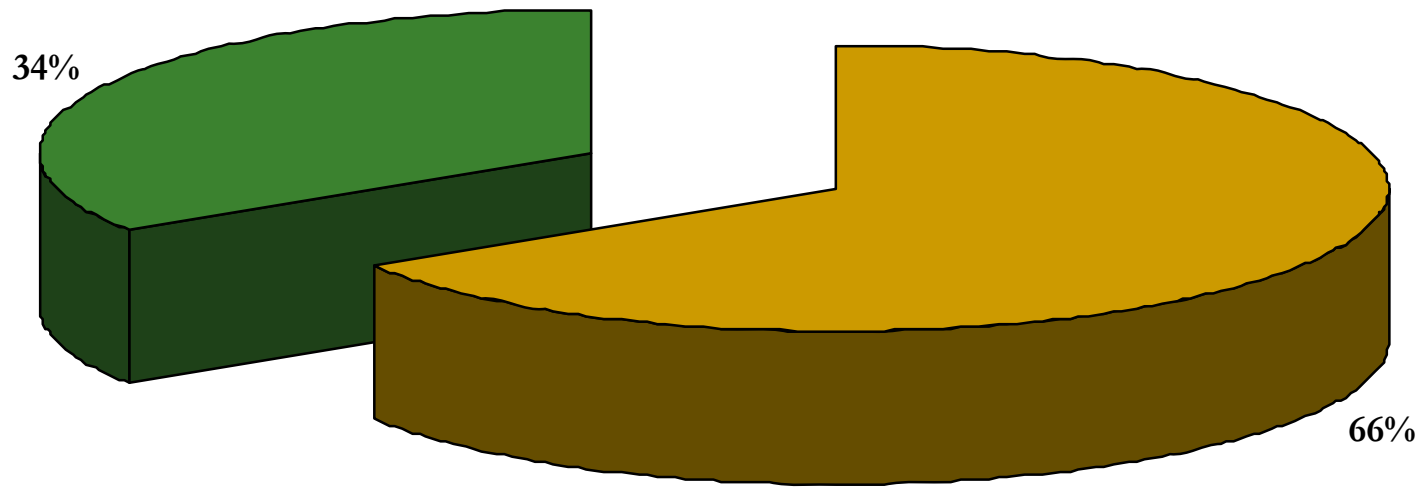
Changing of the tools and reporting system

- At the end of 2005 data management unit at NCHADS have been created in order to collaborate with other unit on update/revise the exist data collection tools and also collecting , Compiling the data from VCCT, OI/ART,STD Clinic, HBC . Until now we have 1 central data management team and 11 Provincial data management teams in 11 provinces (PVG, SVR, BTB, KDL, TKO, KHK, SHV, SRP, PST, KCM, BMC) which are supported WHO.

- In order to decrease the workload of staff at the facilities and get more accurate data we have changed the frequency of report from monthly to quarterly basis.

- Simplified the report form (officially used Jan. 2006)

- Simplified the Database (early 2006)

Changes in the Reporting Form for VCCT

- Layout of the report was totally change
- Delete some unnecessary Information from the report and standardize Age group.
- Adding information referral information.

Total: Patient: **985p**	HIV+ = 57 (4.70%) HIV - = 409 (95.29%)	Marital Status		Group Risk Behavior Number And %		Refer to L.W.F 17P WorldVision: 30P
Total male 635p= (60.68%)	Total female 350p= (39.3%)	Single : 384p (38.98%)		Military:	12 /247 (25.07%)	
Result of HIV			Fiancé : p	Police:	0/0 (%)	
HIV +		**HIV-**		DSWs:	0/0 (%)	
				Married : 509p (51.67%)	IDSWs:	6 /47 (4.77%)	
Male Total :28p (2.84%) 04 : 15-24y (0.40%)	Female Total : 29p (2.94%)	Male Total : 607p	Female Total : 321p	Divorced: 92p (9.34%)	Risk Partner:	0/0 (%)	
	0 5 : 15-24y		(32.58%)		Partner or Parent:	0/0 (%)	
0 : 25-29y (.%)	(0.50%)	(61 .62%)		Risk Group(Non precise)	0/0 (%)	
					Student:	0/60 (6.09%)	
24 : >29y (2.43%)	0 : 25-29y (.%) 24 : >29y (2.43%)			Non information:	32 /553(56. 14%)	
				House wife:	7 / 78 (7.9%)	

OLD Paper-based (top) and Computer generated (bottom) Report format

1. Activity

	N		% HIV positive
Total number of patients attending VCCT	1025		5.9 %

2. Distribution by age and sex

	N	% of total	% HIV positive
Males	654	63.8 %	4.1 %
.	1	100.0 %	0.0 %
0-14	17	39.5 %	5.9 %
15-24	206	62.2 %	1.5 %
25-29	134	64.7 %	0.7 %
30 & +	296	66.8 %	7.4 %
Females	371	36.2 %	8.9 %
.	0	0.0 %	0.0 %
0-14	26	60.5 %	0.0 %
15-24	125	37.8 %	3.2 %
25-29	73	35.3 %	13.7 %
30 & +	147	33.2 %	12.9 %

3. Distribution by marital status

	N	% of total	% HIV positive
Single	401	39.1 %	2.7 %
Married	527	51.4 %	6.1 %
'dow	97	9.5 %	17.5 %

ឈ្មោះមន្ទីរពេទ្យបង្អែក/គ្លីនិក (Facility)				លេខកូដ (Facility Code)		
ឈ្មោះស្រុកប្រតិបត្តិ (Operational District)				ខេត្ត/ក្រុង(Province)		
ឆ្នាំ (year)				ត្រីមាសទី (Quarter)		

	ចំនួនអតិថិជនដែលបានទទួលការផ្ដល់ប្រឹក្សា មុនពេលធ្វើតេស្ត (Number of Client referred from)	
មុនពេលធ្វើតេស្ត	មក **ដោយខ្លួនឯង** (Self referred)	
	អតិថិជនដែលបានបញ្ជូនមកពី **សេវាព្យាបាលជំងឺរបេង** (មណ្ឌលសុខភាព, អតីតមន្ទីរពេទ្យស្រុក, មន្ទីរពេទ្យបង្អែក)	
	អតិថិជនដែលបានបញ្ជូនមកពី កន្លែងផ្សេងៗទៀត (Others)	
	សរុប	0

		អាយុ	ប្រុស	ស្រី	សរុប
បានធ្វើតេស្ត	ចំនួនអតិថិជនដែលបានទទួលធ្វើតេស្ត (# of Clients tested)				0
	តេស្ត HIV +	≤ 14			0
		15 - 49			0
		> 49			0
		សរុប	0	0	0
	តេស្ត HIV -	≤ 14			0
		15 - 49			0
		> 49			0
		សរុប	0	0	0
	តេស្ត HIV Indeterminate	≤ 14			0
		15 - 49			0
		> 49			0
		សរុប	0	0	0

ក្រោយពេលធ្វើតេស្ត	ចំនួនអតិថិជនដែលបានទទួលការផ្ដល់ប្រឹក្សា ក្រោយពេលធ្វើតេស្ត (# of Clients received Post-Test Counseling)	≤ 14			0
		15 - 49			0
		> 49			0
		សរុប	0	0	0
	ចំនួនអតិថិជនបានទទួលលទ្ធផល HIV + ដែលបានបញ្ជូនទៅកាន់ : (# of HIV + Clients referred to Other services)	កន្លែងផ្ដល់សេវា OI/ART			
		សេវាផ្សេងទៀត			
		សរុប			0

ថ្ងៃ.ខែ.ឆ្នាំធ្វើរបាយការណ៍ (date reported)	/ /
ឈ្មោះ និង ហត្ថលេខាអ្នកធ្វើរបាយការណ៍ (Report Completed by)	
ឈ្មោះ និង ហត្ថលេខាអ្នកទទួលខុសត្រូវ VCCT (Report Approved by)	

Changes in the Database

- Simple and user friendly interface than the Previous version.

- Input mechanism can improve the quality of the data (point and Click *versus* Type-in)

- Store more records than the previous version (*Epidata file* VS *MSDE)*

- Simple backup and export function

- Report Generating faster than the previous version (*Crystal report* VS R- Statistical package)

File   Goto   Filter   Window   Help

Voluntary Counseling Confidential Testing

Centre Dépistage Anonyme et Gratuit

Counseling Registration Sheet

IDNUM   Identification number

DATE   Date   VCCT   VCCT Center

CCODE   Client code   SEXCODE   Sex

Age   Age   MSTATUS   Marital status

JOB   Occupation   OTHJOB   Other job

PROVCODE   Province   COUNTRY Country of origin

OTHLOC   Other country

VISIT   Reason for visit   OTHWHY   Other reasons

REFER   Refer from   OTHREFER Other referral

RISKCODE   Risk assessment   LASTDATE   Last Date

OTHRISK   Other risks

PrevTS   Previous test   Result   Date

Current Test:

TSTP   Test provided   TSTPR   Test result

POSTTS Post-test counselling   POSTDATE   Date

REFERTO   Refer to   OTHREFE   Refer to other

NAME   Counsellor's name

	N	% of total
1. Activity		
Total number of patients attending VCCT	1025	
2. Distribution by age and sex	N	% of total
Males	654	63.8 %
	1	100.0 %
0-14	17	39.5 %
15-24	206	62.2 %
25-29	134	64.7 %
30 & +	296	66.8 %
Females	371	36.2 %
	0	0.0 %
0-14	26	60.5 %
15-24	125	37.8 %
25-29	73	35.3 %
30 & +	147	33.2 %
3. Distribution by marital status	N	% of total
Single	401	39.1 %
Married	527	51.4 %
dow	97	9.5 %
4. Distribution by occupation	N	% of total
DSW	0	0.0 %
Beer promotion gril karaok massage	54	5.3 %
Police Soldier	249	24.3 %
Fisherman	1	0.1 %
Housewife	26	2.5 %
Farmer	497	48.5 %
Factory worker	13	1.3 %
Construction worker	12	1.2 %
Officer	21	2.0 %
NGO Worker	4	0.4 %
Company worker	0	0.0 %
Student	61	6.0 %
Seller	22	2.1 %
Driver	6	0.6 %
Health Worker	11	1.1 %
Dressmaker	14	1.4 %
aftsman's trade (artisan)	0	0.0 %
Artist	0	0.0 %
Child	16	1.6 %
Unemployed	0	0.0 %
Other	18	1.8 %
5. Distribution by visit reason	N	% of total
Self demand with symptoms	5	0.5 %
Self demand with perceived risk	945	92.2 %
PREMARTITAL STATUS	47	4.6 %
Pregnancy	4	0.4 %
Partner HIV+	11	1.1 %
Parent HIV+	11	1.1 %
Follow up visit	0	0.0 %
Others	0	0.0 %
6. Distribution by risk assessment	N	% of total
Sex without condom with non regular partner	3	0.3 %

The data entry screen is in English and not put order as the one in registration paper

New Database

File   View   Report   Help

Menu   ⊓ ✕

Form   ☆
🖼 **Registration**

🏠 **VCCT Center**

👤 **Counselor**

Report   ☆
🇰🇭 **In Khmer**

Tool   ☆
📦 **Backup**
📦 **Restore**

🗂 **Import**
🗂 **Export**

Start Page

🧪 Voluntary Confidential Counselling and Testing

Welcome to NCHADS Database Software.

You can find all what you need with the following links.

Form

🖼 **Registration**

🏠 **VCCT Center**

👤 **Counselor**

Tool

📦 **Backup**

📦 **Restore**

🗂 **Import**

🗂 **Export**

Report

🇰🇭 **In Khmer**

Contact

Data Management Unit, NCHADS

Email: datamgt@nchads.org

Phone/Fax: (+855) 23 216 515

Main Screen is quit simple and Strait forward

Copyright By NCHADS   (http://www.nchads.org)

File   View   Report   Help

Menu   ⊣ ×   Start Page   VCCT Registration

Form   ⌄   Detail   Registration

    Registration   New Registration

    VCCT Center   ## បំណ្ណចុះឈ្មោះអតិថិជនមកទទួលសេវាផ្តល់ប្រឹក្សា

    Counselor
                                              ១.កាលបរិច្ឆេទ :   14/09/2006   ∨
Report   ⌄

    In Khmer   ២. ឈ្មោះមណ្ឌលផ្តល់ប្រឹក្សា និងធ្វើតេស្ត :   V12-01   ∨

Tool   ⌄   ៣. អត្តលេខអតិថិជន :

    Backup   ៤. ភេទ :   ○ ប្រុស   ○ ស្រី
    Restore

    Import   ៥. អាយុ:

    Export
                                              ៦. ស្ថានភាពអាពាហ៍ពិពាហ៍ :   ○ នៅលីវ   ○ រៀបការហើយ   ○ ពោះ-មេម៉ាយ

                                              ៧. មុខរបរ :   ∨

                                              ៨. លេខកូដខេត្ត ក្រុង :   ∨

                                              ៩. ប្រទេសកំណើត: ○ កម្ពុជា   ○ វៀតណាម   ○ ថៃ   ○ ប្រទេសផ្សេង១

                                              ១០: មូលហេតុរកសេវា:

Data Entry screen have been localized (using Khmer language) and Prepare by order as shown in the registration paper.

VCCT Report

By Quarter | By Month

OPTION

ការជ្រើសរើស

ឆ្នាំ (Year) 2006

ត្រីមាសទី (Quarter) 1

1
2
3
4

VCCT Report

By Quarter | **By Month**

OPTION

ការជ្រើសរើស

ឆ្នាំ (Year) 2006

ខែ (Month) 1

1
2
3
4
5
6
7
8

Report can be generated by Quarterly and Monthly.

របាយការណ៍ស្តីពីការផ្តល់ទ្រឹស្សា និងបើកតេស្តឈាមរកមេរោគអេដស៍ស្ម័គ្រចិត្ត និងសម្ងាត់ (VCCT)

ឈ្មោះមន្ទីរពេទ្យបង្អែក/គ្លីនិក (Facility) មន្ទីរពេទ្យមិត្តភាពខ្មែរសូវៀត	លេខកូដ (Facility Code) V12-01
ឈ្មោះស្រុកប្រតិបត្តិ (Operational District) កណ្ដាល	ខេត្ត/ក្រុង (Province) ១២ ភ្នំពេញ
ឆ្នាំ (year) 2006	ត្រីមាសទី (Quarter) 2

	ចំនួនអតិថិជនដែលបានទទួលបញ្ជូនឲ្យប្រឹក្សា ចេញពេលទទួលបាន (Number of Client referred from)			
	មកដោយខ្លួនឯង (Self referred)			152
	អតិថិជនបញ្ជូនមកពី កម្មវិធីរបេង (TB Program)			1
	អតិថិជនបញ្ជូនមកពី កន្លែងផ្សេងៗទៀត (Others)			103
	សរុប			256

	ចំនួនអតិថិជនដែលបានទទួលតេស្ត (# of Clients tested)		ប្រុស	ស្រី	សរុប
	តេស្ត HIV +	≤ 14	3	1	4
		15 - 49	66	49	115
		> 49	4	3	7
		សរុប	73	53	126
	តេស្ត HIV -	≤ 14	5	2	7
		15 - 49	51	62	113
		> 49	4	6	10
		សរុប	60	70	130
		សរុប	133	123	256

			ប្រុស	ស្រី	សរុប
	ចំនួនអតិថិជនដែលបានទទួលបញ្ជូនឲ្យប្រឹក្សាក្រោយពេលទទួលបាន	< 14	8	3	11
	(# of Clients received				

(# of Clients receive

| ថ្ងៃ ខែ. ឆ្នាំទទួលរបាយការណ៍ (date rep |
| ឈ្មោះ និង បុព្វលេខានុករទទួលរបាយ |
| ឈ្មោះ និង បុព្វលេខានុករទទួលយល |

រចនាការណ៍នេះ ផ្តល់ដើម្បី Data Management Unit (NCHADS)

Generated report can be print or save as electronic file in many different format (Word, PDF,…etc)

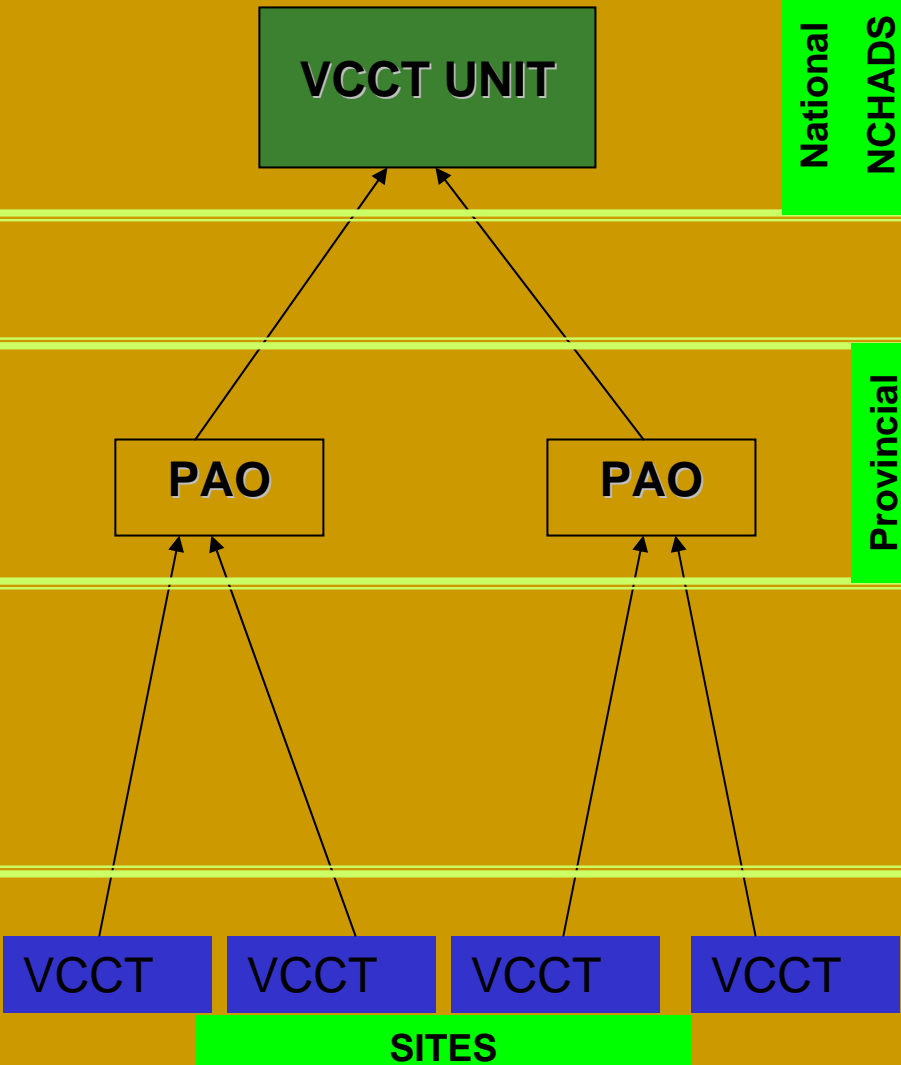**Searching for a record is quit simple and fast by just enter the VCCT client code.**

Data Could be easily Export into many format (excel, CVS,…etc) for easily import to the statistical package for Analysis.

File   View   Report   Help

Import database...
Export database...

Backup database...
Restore database...

Exit

VCCT Center
Counselor

Report

In Khmer

Save As

Save in: My Documents

CyberLink
DepartmentStore2
History
Human_Resource
My Albums
My eBooks
My Music
My Pictures
My Playlists
My Received Files
My Webs
NCHADS
Roxio
Start Menu
VCCT

Visual Studio 2005
Zuma Deluxe
STD Update 2 record.bak

My Recent Documents
Desktop
My Documents
My Computer
My Network

File name: vcct14092006

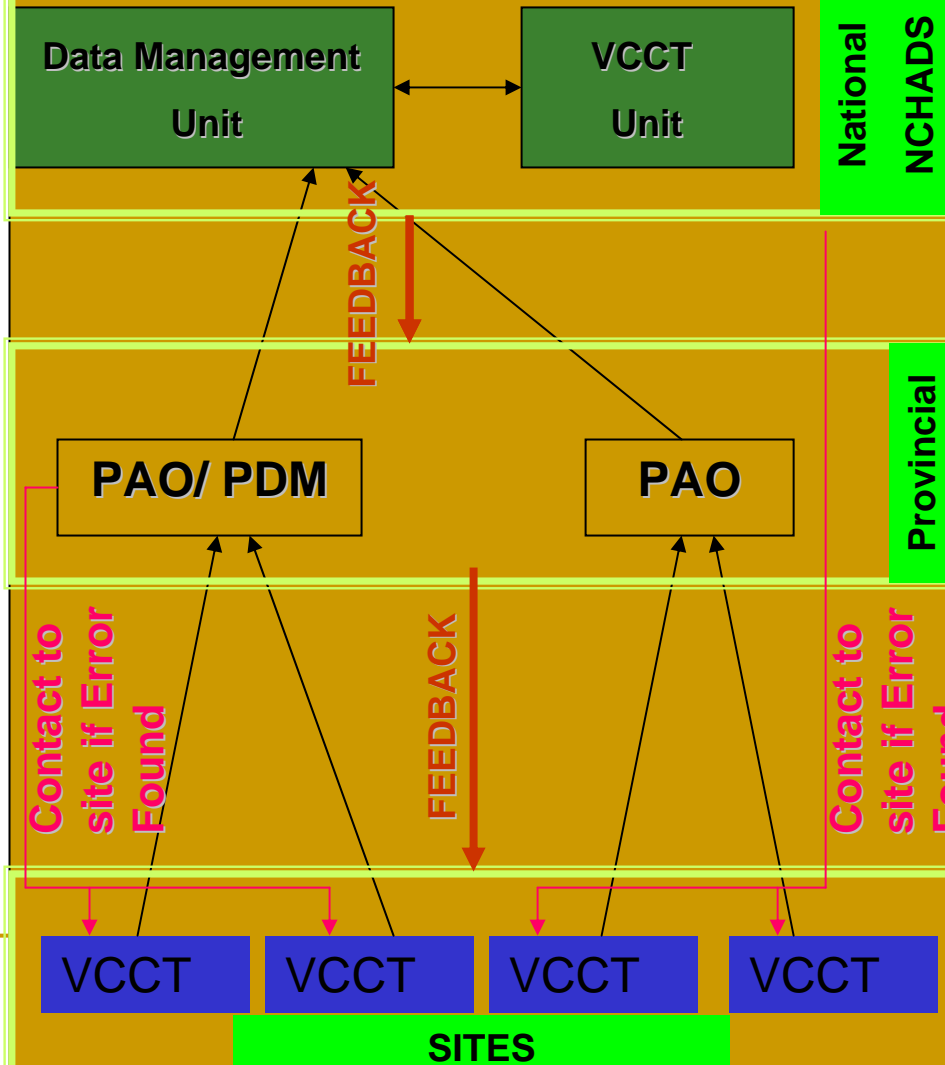Save as type: Database Backup files (*.bak)

Save

Cancel

Simple way to back up and restore the whole database as easy as save and open the document in word processor.

Changing of the reporting Flow

OLD REPORTING FLOW

VCCT UNIT

National NCHADS

PAO

PAO

Provincial

VCCT VCCT VCCT VCCT

SITES

NEW REPORTING FLOW

Data Management Unit

VCCT Unit

National NCHADS

FEEDBACK

PAO/ PDM

PAO

Provincial

Contact to site if Error Found

FEEDBACK

Contact to site if Error Found

VCCT VCCT VCCT VCCT

SITES

Limitation

- Although strong system in place, we haven't done any in depth analysis of the electronic data available.

Lesson Learnt

- Using well-designed, simple and standardized paper-based and electronic tools improved the quality and timeliness of VCCT data and contributed to strengthen the VCCT programme monitoring and evaluation.

- Well designed system alone could make the system working. The continuous support to VCCT sites is also one key element.

Recommendations

- In addition to the paper-based report, the in depth analysis of VCCT electronic datasets will allow better understanding of the type of VCCT clients over time.