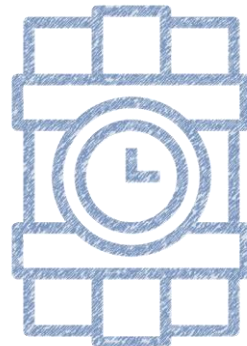


cop 18 data pack

hackathon | dec 19





overview



data pack structure



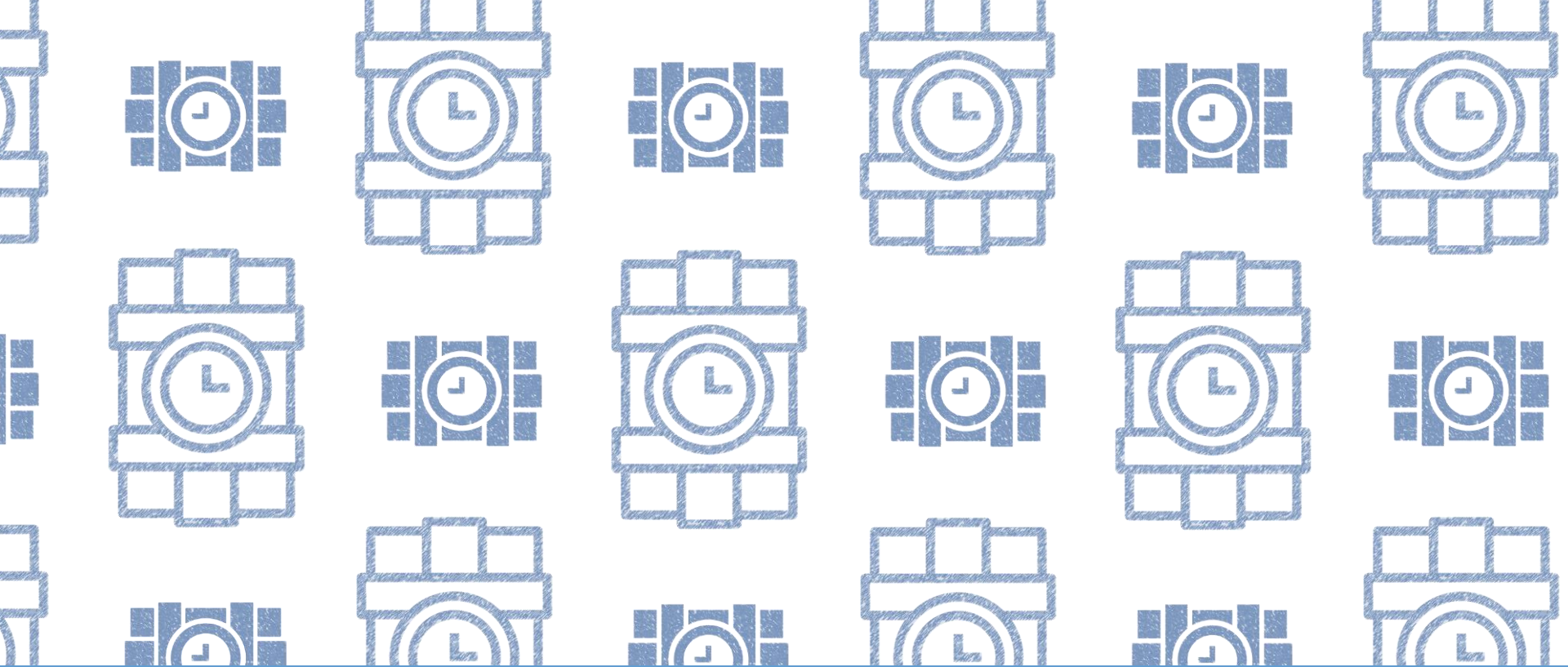
capturing issues



error checking tools



appendix: im allocation



overview

purpose

need to ensure the data
packs are generated
without bugs and with
the correct data



Jan 10 – data pack release

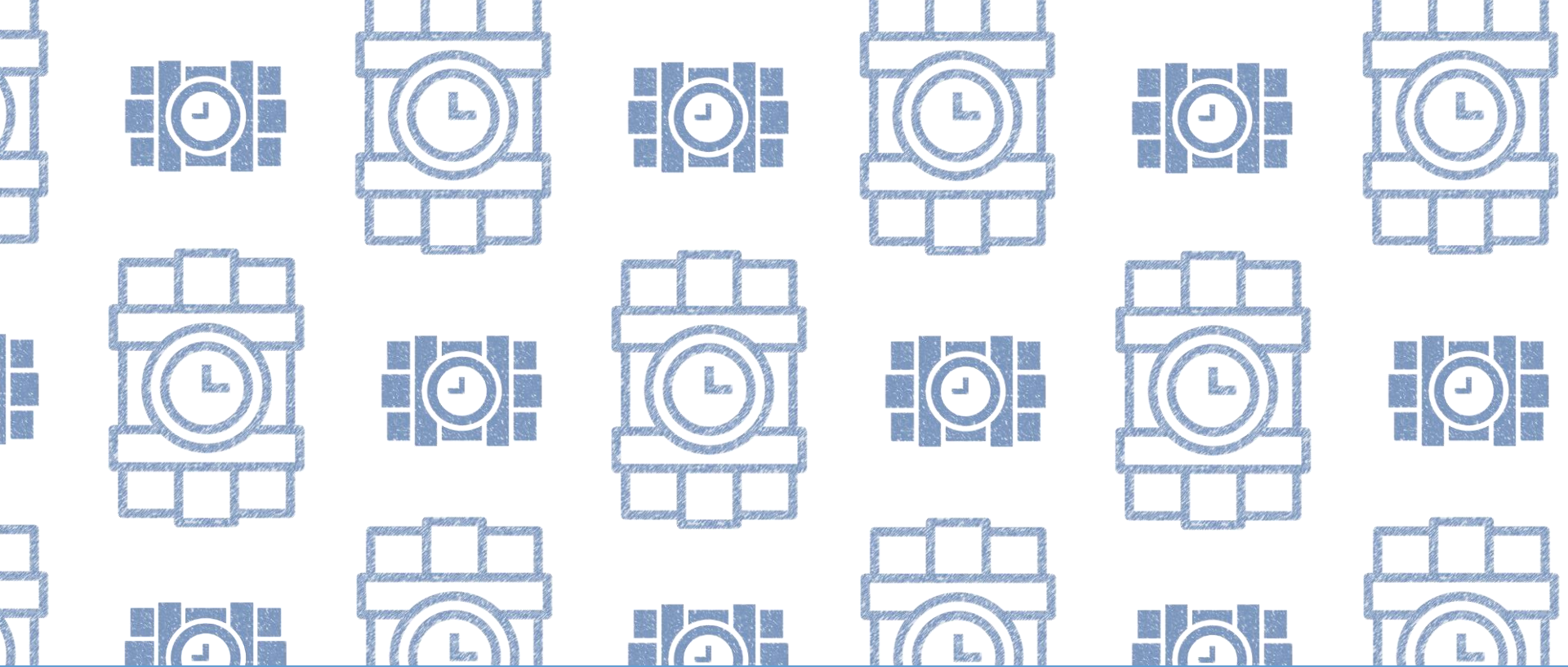
while any feedback is appreciated, we likely won't be making any huge structural changes; the main goal is simply to error check

- validate data pull from fact view, ie cross check indicator table with DATIM/Pano/other fact view pull
- review distribution on IM distro tab
- verification on assumption tab values
- check formulas on all tabs
- test moving data from IM targets tab to disagg tool
- review distribution tabs
- check formulas on all target tabs



Hackathon Sections to check #72 [\[link\]](#)

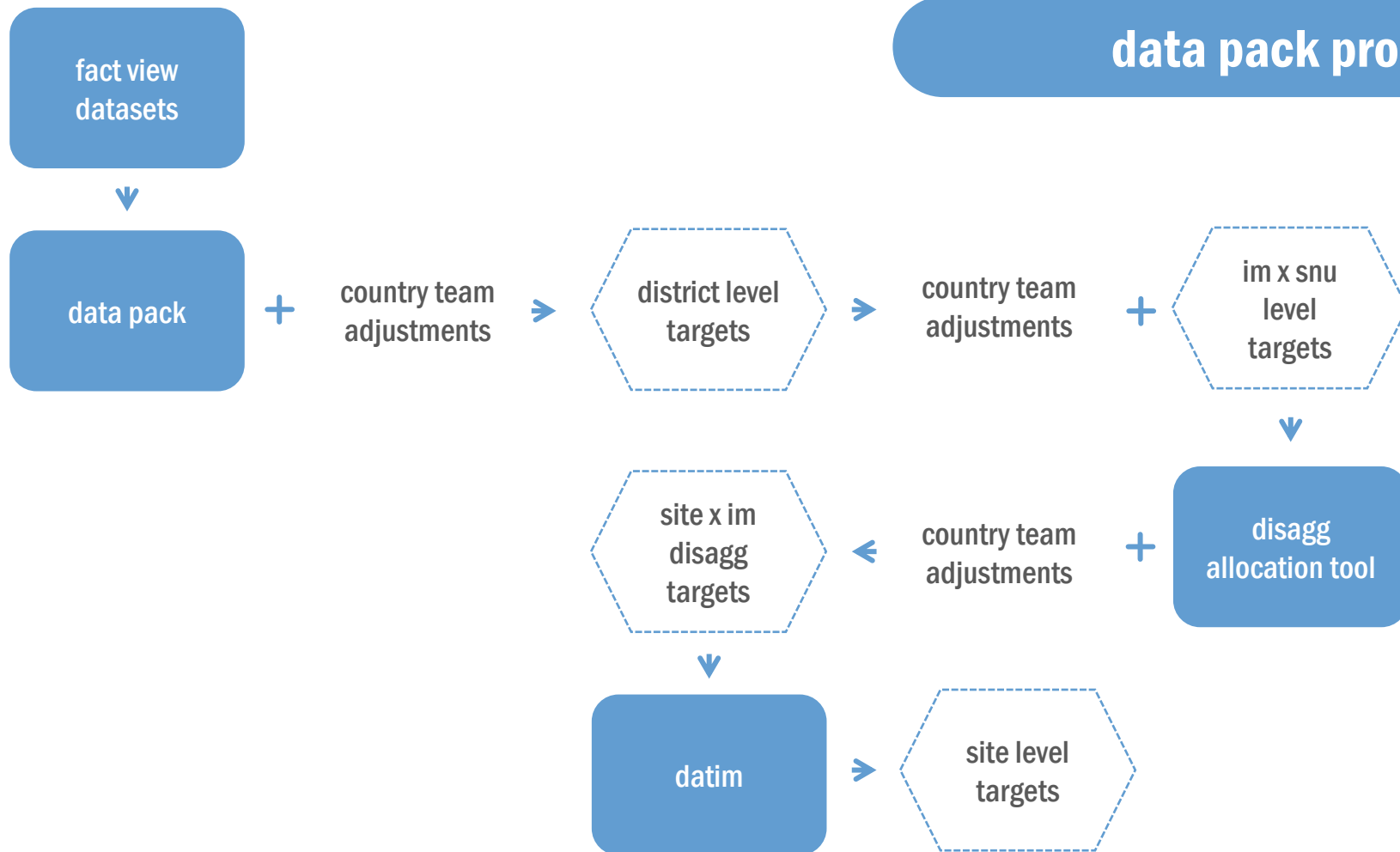
- wrong data
- 0's
- variable name doesn't match column heading
- #N/A or #NAME
- wrong cell reference
- match is looking up correct SNU list
- formatting is off/doesn't match rest of cell (eg percent



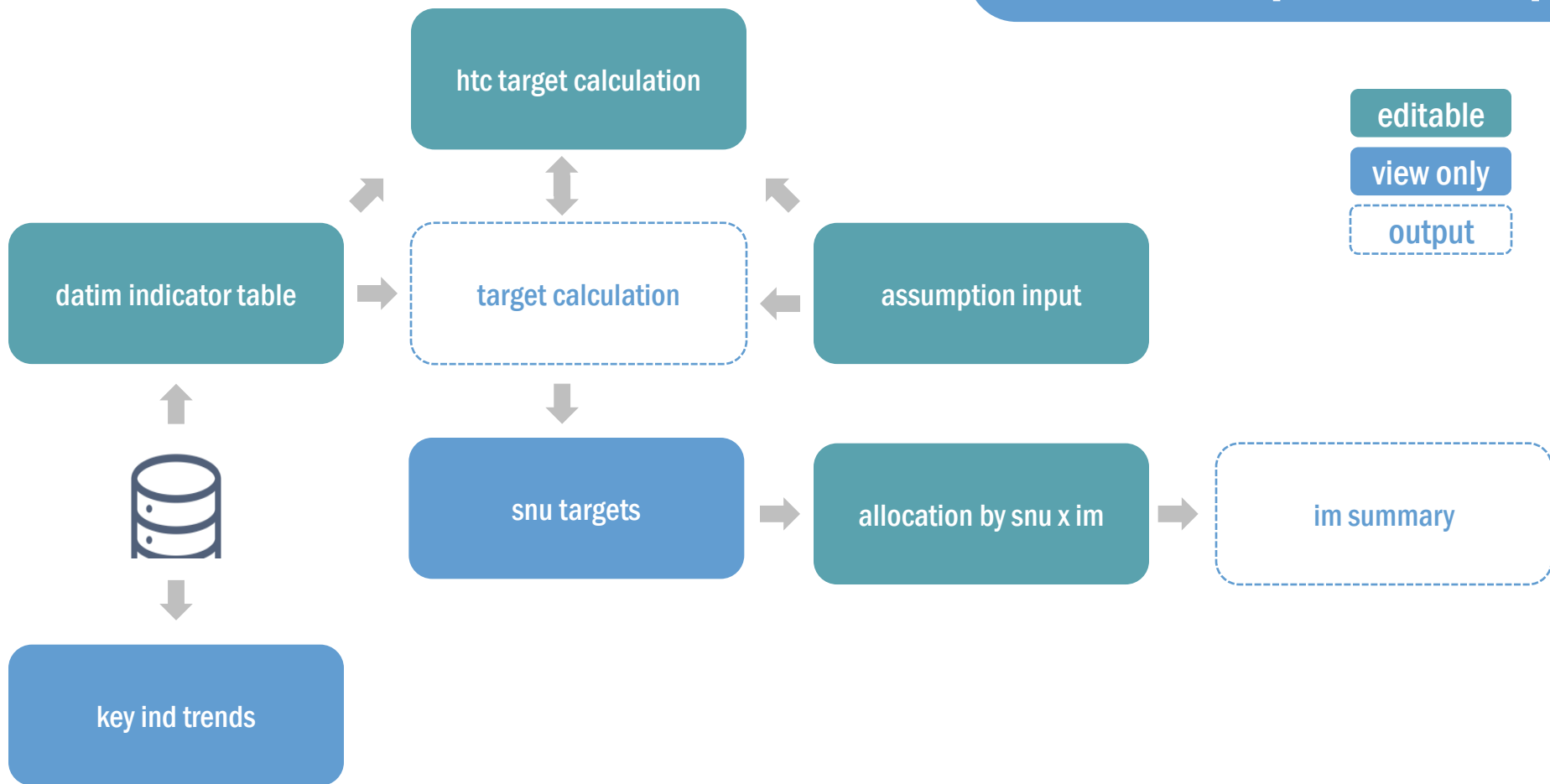
data pack structure

gend_gbv	ovc_serv	prep_new	tx_curr
hts_tst	pmtct_art	tb_art	tx_new
hts_tst_pos	pmtct_eid	tb_prev	tx_ret
kp_prev	pmtct_stat	tb_stat	vmmc_circ
kp_mat	pp_prev	tb_stat_pos	

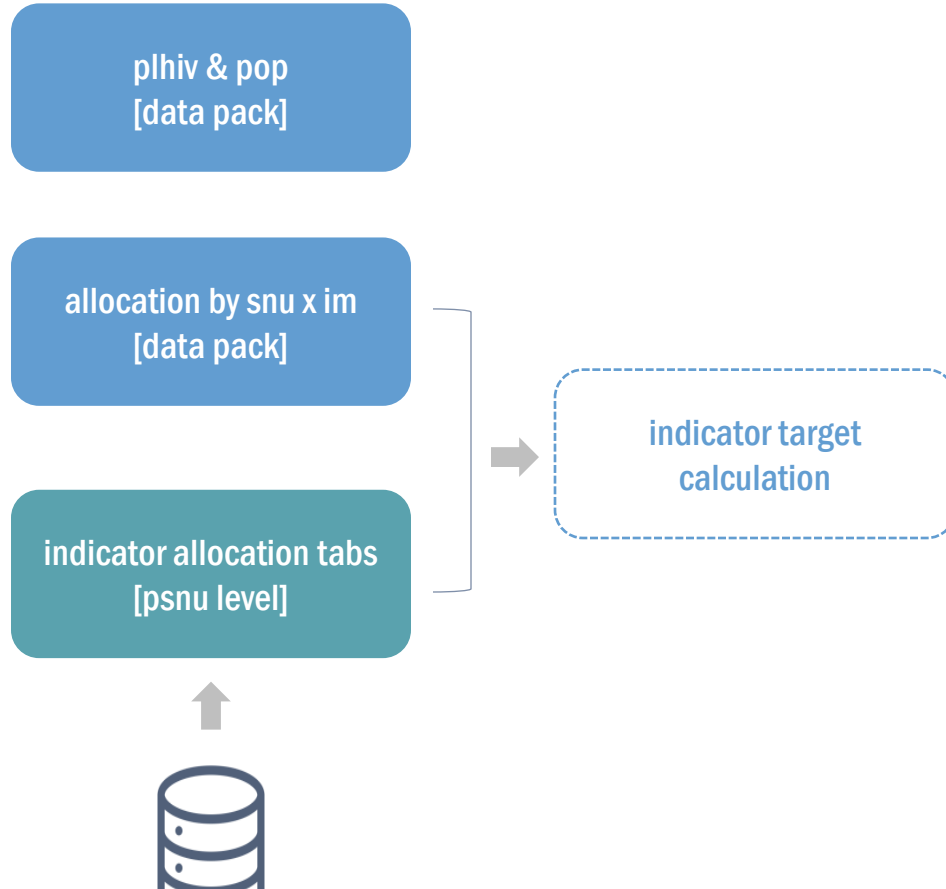
data pack process



data pack site map



disagg tool site map



editable

view only

output

indicator table

DATIM IND. TABLE		HTS	
Worksheet Navigation Links		FY17 HTS_TST	FY17 HTS_TST_POS
snulist		hts_tst	hts_tst_pos
SNU1	Total	11,911,750	189,862
Priority			
HTC	Homa Bay	396,297	15,082
HTC: SDP	Nairobi County	1,230,985	26,682

variable title

variable name

dataset created from fact view data

scripts [link]

variables [link]

target calculation

TARGET CALCULATION		PEPFAR ART									
Worksheet Navigation Links		Source Legend									
		c - calculation a - Assumption Input tab h - HTC Target Calc. tab r - result, DATIM Ind. tab t - target, DATIM Ind. tab									
		FY17 Results		FY18 Targets				FY19 target			
		FY17 TX_CURR	FY17 TX_NEW	FY18 TX_CURR Target	Anticipated achievement of FY18 TX_CURR target	FY18 Expected TX_CURR Ret	FY18 TX_NEW	TX_RET in cohort	Percent of eligible followed into cohort	FY19 TX_RET (Denom.)	
Host Ctry	Total	1,037,946	149,580	1,314,707		1,314,707	274,004	274,004		274,004	
ART											
PMTCT	Homa Bay	98,500	12,410	140,743	100%	140,743	37,969	37,969	100%	37,969	
EID	Nairobi County	141,541	19,165	161,999	100%	161,999	36,916	36,916	100%	36,916	
Peds	Kisumu	97,973	13,130	124,563	100%	124,563	29,337	29,337	100%	29,337	
TB/HIV	Siaya	78,891	11,009	115,322	100%	115,322	36,224	36,224	100%	36,224	
Entry Points	Migori	64,577	8,848	79,881	100%	79,881	12,794	12,794	100%	12,794	

=INDEX(tx_curr_T, MATCH(snu,snulist,0))

indicator table

allocation by snu x im

see appendix for visual explanation

ALLOCATION
BY IM

Worksheet
Navigation
Links

FY16 Distro

FY18 Alloc.

Dsnulist	D_priority	D_mech	D_type	D_tx_ret_D_f...	D_tx_ret_D_f...
Total				100%	2,935
Bungoma	ScaleUp Sat		O TA		
Bungoma	ScaleUp Sat	13354	DSD		
Bungoma	ScaleUp Sat	13588	DSD	71%	2,087
Bungoma	ScaleUp Sat	13868	TA		
Bungoma	ScaleUp Sat	14012	DSD	15%	434
Bungoma	ScaleUp Sat	14012	TA		
Bungoma	ScaleUp Sat	16687	DSD	0%	12
Bungoma	ScaleUp Sat	17944	DSD		
Bungoma	ScaleUp Sat	18206	DSD	14%	402
Bungoma	ScaleUp Sat	18284	DSD		

mech share of
snu fy17 total

every snu will sum to
100%

= snu fy19 target
x im share






FY17 APR Distrib FY19 Target Allo

TX_RET
(Denom.)

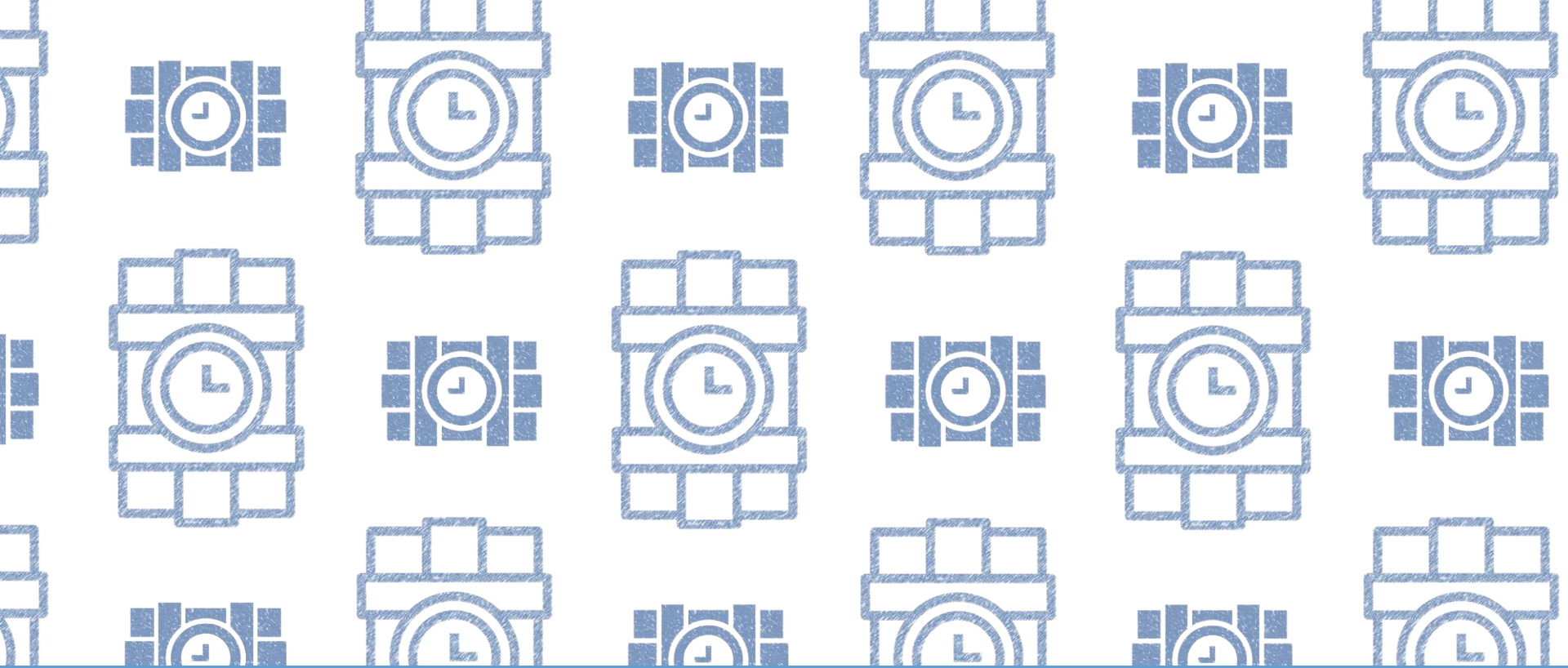
TX_RET
(Denom.)

positives identify
in snu

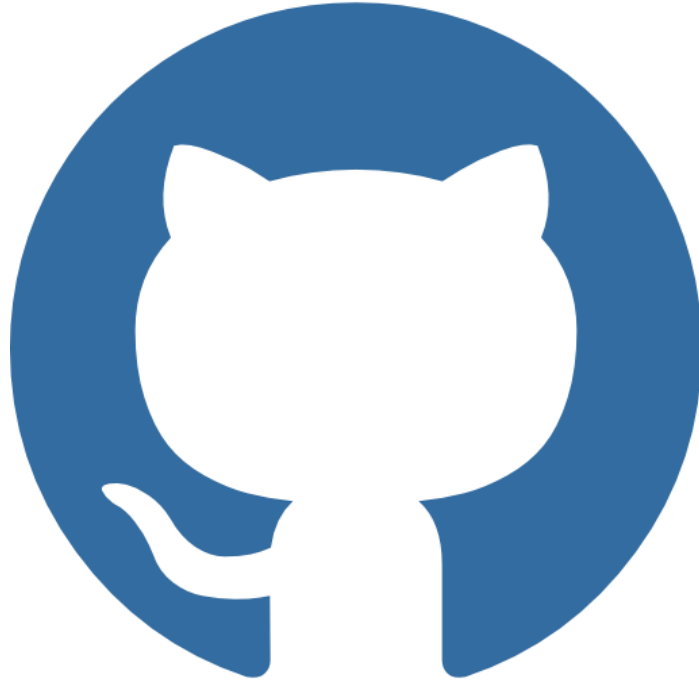
hts calculation

	share of tests (sum to 100%)	positivity	total tests
			
			
			
			
			

← positives identify
x modality psnu share
÷ positivity



capturing issues



github.com/achafetz/DataPack/issues

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FY19 TB_STAT denominator #69

Edit

New issue

[Open](#) achafetz opened this issue 4 days ago · 0 comments

F1

achafetz commented 4 days ago

Owner



Assignees

No one—assign yourself

Labels

Excel: template

help: question

input: assumptions

Projects

COP18 Data Pack Pro... (awaiting triage)

L.Tally - TB_STAT: Recommend that default TB_STAT denominator be FY17 results rather than FY18 targets. Likely more realistic [Not a big deal to leave as is though].

PEPFAR TB/HIV

FY17 Results						FY18 Targets					Change in	FY19 Target	FY19 TB_STAT
FY17 TB_STAT (Denom.)	FY17 TB_STAT	FY17 TB_PREV (Denom.)	FY17 TB_PREV	FY17 TB_STAT_PO S	FY17 TB_STAT Yield	FY18 Target TB_STAT (Denom.)	FY18 Target TB_STAT	FY18 Target TB_PREV (Denom.)	FY18 Target TB_PREV	FY18 Target TB_ART	TB_STAT (Denom.) from FY18 to FY19	TB_STAT (Denom.)	Target percentage of TB cases who know HIV status
15,037	14,906	0	0	69		18,455	17,620	279,959	271,619	9,356		18,455	
2,825	2,800	0	0	0	0%	3,815	3,716	82,111	79,667	1,944	100%	=IFERROR(OK7*OF7,0)	

open a new issue



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achafetz / DataPack

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Code

Issues 23

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Settings

Filters

is:issue is:open

Labels

Milestones

New issue

23 Open 46 Closed

Author

Labels

Projects

Milestones

Assignee

Sort

FY19 TB_STAT denominator Excel: template help: question input: assumptions

#69 opened 4 days ago by achafetz

PVLS Eligible to take into account attrition/death in the FY18 TX_CURR cohort? Excel: template

help: question

#67 opened 4 days ago by achafetz

FY18 OVC_SERV Total Numerator Target? code: 01_output help: question input: meeting/outreach

#61 opened 18 days ago by achafetz

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F1

Title

Write

Preview

AA B i “ <> 🔗 ☰ ☷ ✓ ↶ @ 🚩

Leave a comment

add a title that captures what the issue is

Attach files by dragging & dropping, [selecting them](#), or pasting from the clipboard.

 Styling with Markdown is supported

Submit new issue

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

open a new issue

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Title

Write

Preview

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Leave a comment

summarize the issue and include the issue location (tab, cell) and what you think the error may be, if possible. you can also copy and paste a screen shot in here.

Attach files by dragging & dropping, [selecting them](#), or pasting from the clipboard.

 Styling with Markdown is supported

Submit new issue

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

open a new issue

<> Code ⓘ Issues 23 🔗 Pull requests 0 📁 Projects 1 📖 Wiki 📊 Insights ⚙️ Settings

F1

Title

Write

Preview

AA ▾ B i “ <> 🔗 ☰ ☷ ✓ ↶ @ 🚩

Leave a comment

assign the issue to Aaron

Attach files by dragging & dropping, [selecting them](#), or pasting from the clipboard.

📄 Styling with Markdown is supported

Submit new issue

Assignees

No one—assign yourself

Labels

None yet

Projects

None yet

Milestone

No milestone

open a new issue

<> Code **! Issues 23** Pull requests 0 Projects 1 Wiki Insights Settings

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Title

Write

Preview

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Leave a comment

add the label “hackathon” and one of the descriptive help labels

Attach files by dragging & dropping, [selecting them](#), or pasting from the clipboard.

 Styling with Markdown is supported


Submit new issue

Assignees



No one—assign yourself

Labels

 hackaton

 help: bug




 help: data quality issue

 help: formula error



 help: need assistance

 help: question



open a new issue

<> Code **! Issues 23** Pull requests 0 Projects 1 Wiki Insights Settings

F1

Title

Write

Preview

AA B i “ <> 🔗 ☰ ☷ ✓ ↶ @ ★

Leave a comment

when done, click submit new issue

Attach files by dragging & dropping, [selecting them](#), or pasting from the clipboard.

 Styling with Markdown is supported

Submit new issue

Assignees



No one—assign yourself

Labels



None yet

Projects



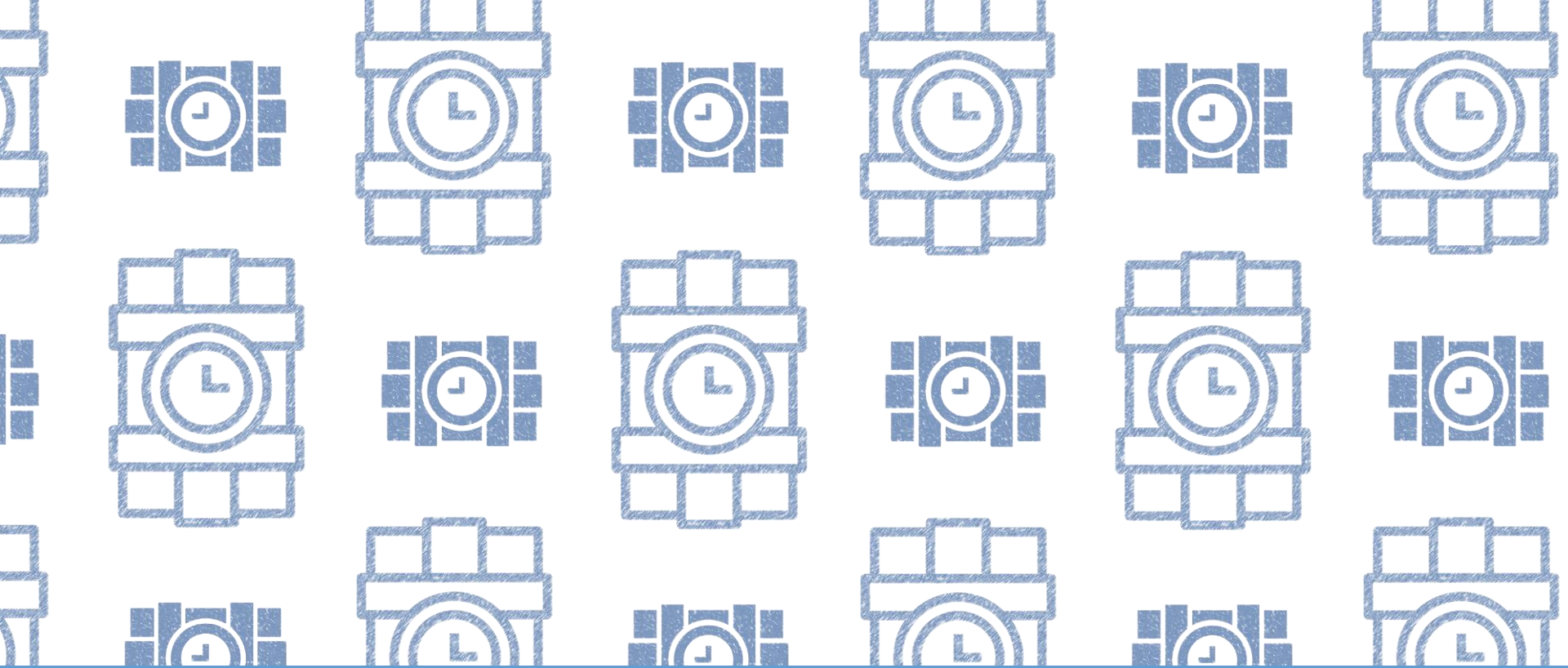
None yet

Milestone



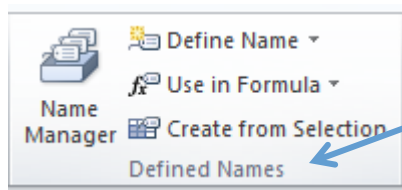
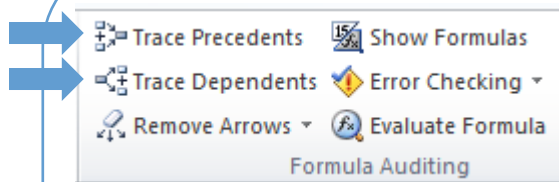
No milestone





error checking tools

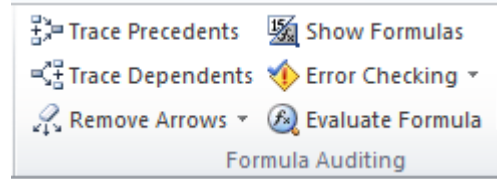
formulas



hts_tst		fx		=SUBTOTAL(109, H6:H54)	
	A	B	C	H	I
1	DATIM IND. TABLE			HTS	
2					
3					
4					
5	SNU1	Total		11,911,750	1
6	Priority				
7	HTC	Homa Bay		396,297	
8	HTC-SPB	Naivasha County		1,330,085	

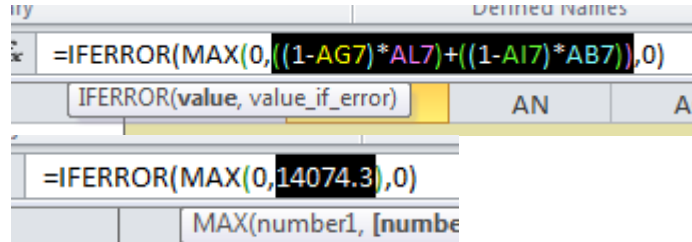
evaluate formula

formulas



F9

key with selection



Esc

key to exit

check data

DATIM IND. TABLE		PMTCT
Worksheet Navigation Links		FY17 PM PMTCT_ARV AI
	snulist	pmtct_art pm
SNU1	Total	47,467
Priority		
HTC	Homa Bay	5,891
HTC: SDP	Nairobi County	7,087
Key Pop	Kisumu	4,906
OVC	Siaya	4,118
PLHIV	Migori	3,696
Pop	Kakamega	1,851
PMTCT	Mombasa	1,872
Priority Pop	Nakuru	1,595
TB	Kiambu	1,610

```
> fv %>%
+   filter(operatingunit == "Kenya", indicator == "PMTCT_ART",
+         disaggregate=="Total Numerator") %>%
+   group_by(psnu) %>%
+   summarise_at(vars(fy2017apr), funs(sum(., na.rm = TRUE)))
# A tibble: 48 x 2
      psnu fy2017apr
  <chr>      <int>
1 _Military Kenya      58
2 Baringo             165
3 Bomet              472
4 Bungoma            1074
5 Busia             1206
6 Elgeyo Marakwet     157
7 Embu              243
8 Garissa             33
9 Homa Bay           5891
10 Isiolo             80
# ... with 38 more rows
```

see list of how
variables were
created [\[link\]](#)

main formulas - max

`=IFERROR(MAX(0,((1-AG7)*AL7)+((1-AI7)*AB7)),0)`

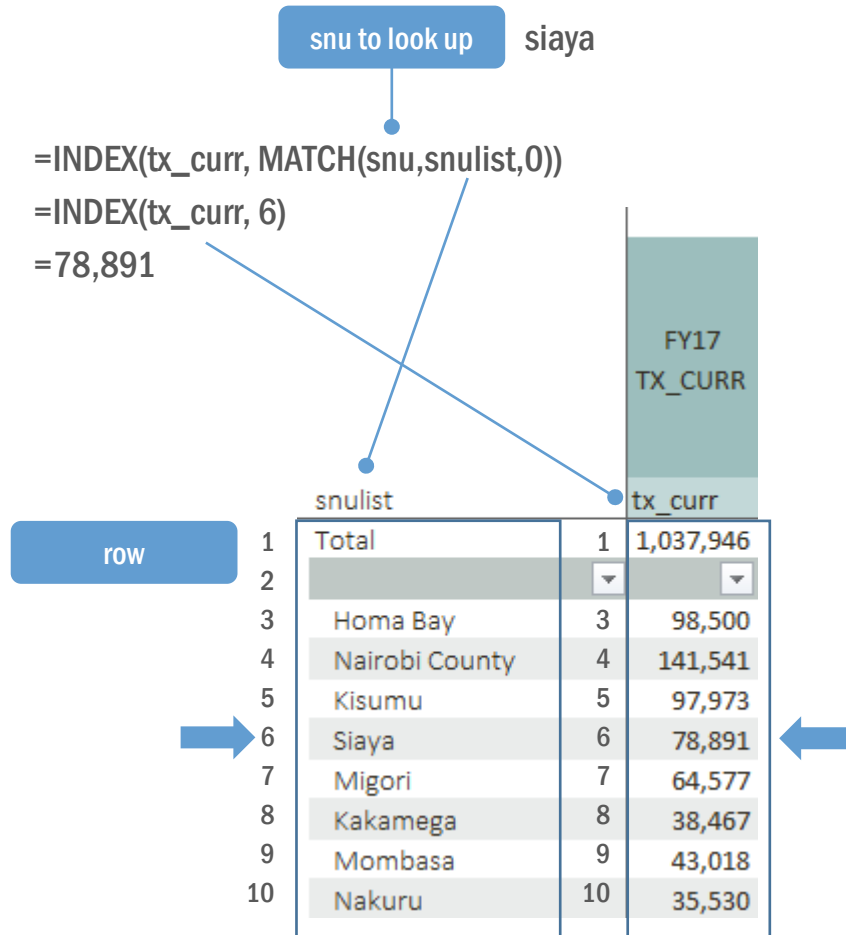
`=IFERROR(MAX(0, value),0)`

max allows us to
ensure values are not
negative

`=IFERROR(value ,0)`

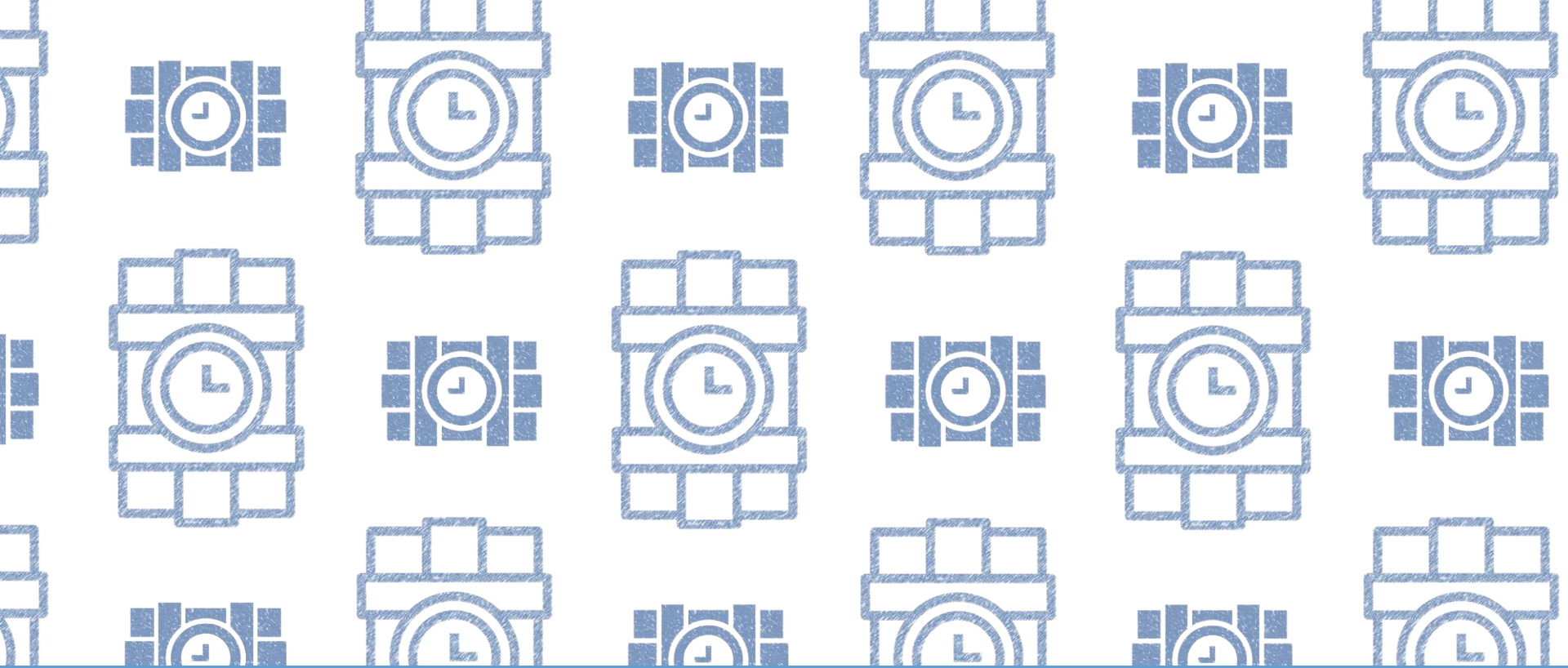
iferror changes #NA to
a 0 or blank

main formulas – index-match



index-match allows us to find a value in a table based on the row and/or column reference.

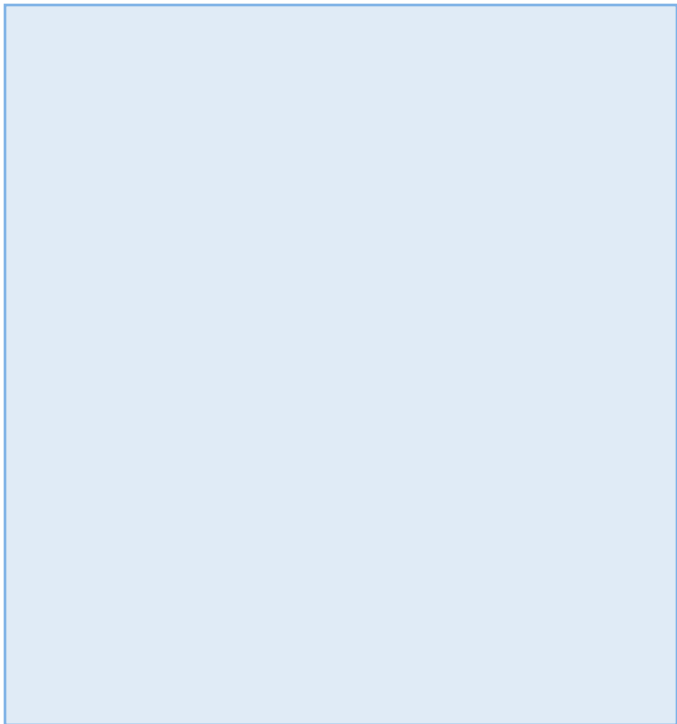
match here is finding what row matches the selected snu. index then looks up the value in the 6th row of the tx_curr reference table



appendix: im allocation

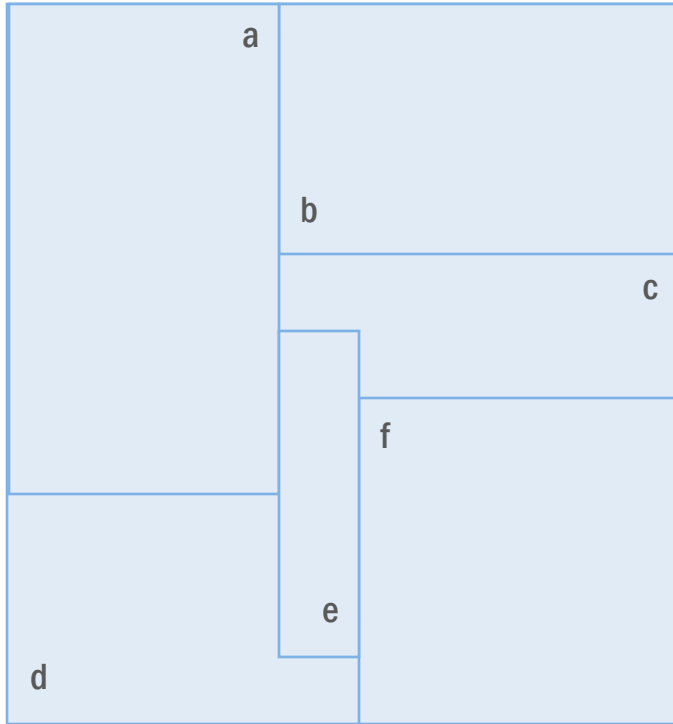
pepfarlandia

im allocation



let's assume we're working in pepfarlandia

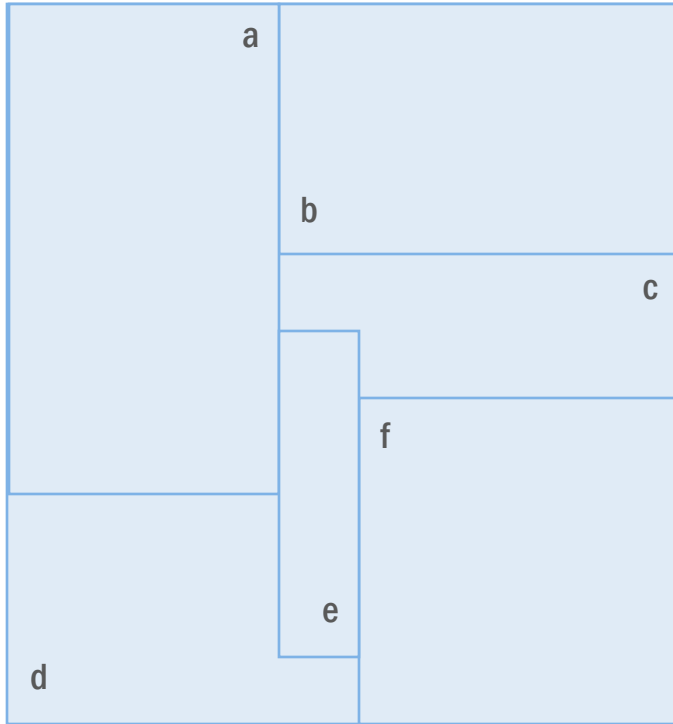
pepfarlandia



im allocation

which has six districts

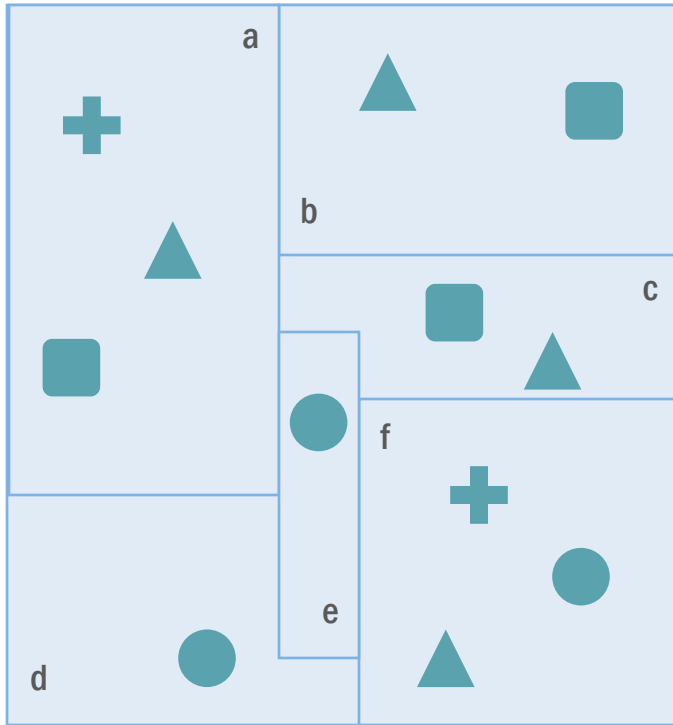
pepfarlandia



im allocation

and four distinct IMs

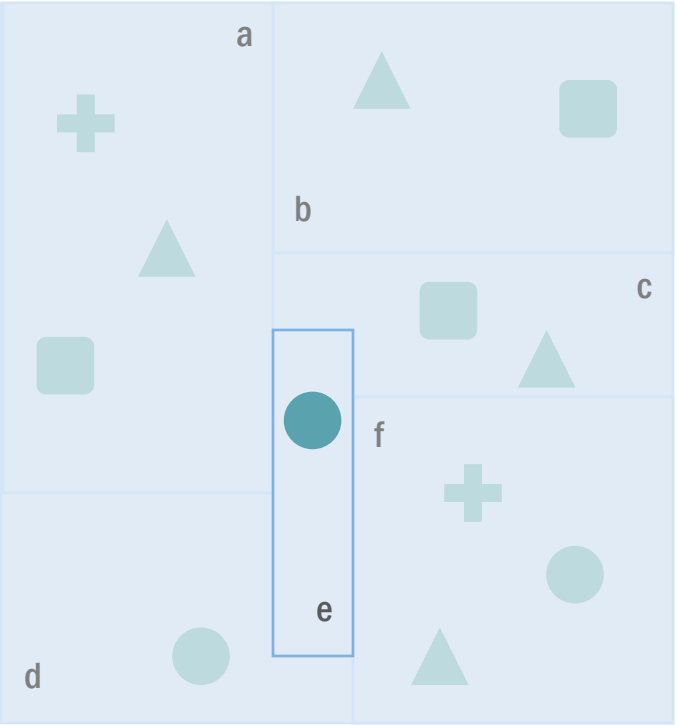
pepfarlandia



im allocation


working across the country

pepfarlandia



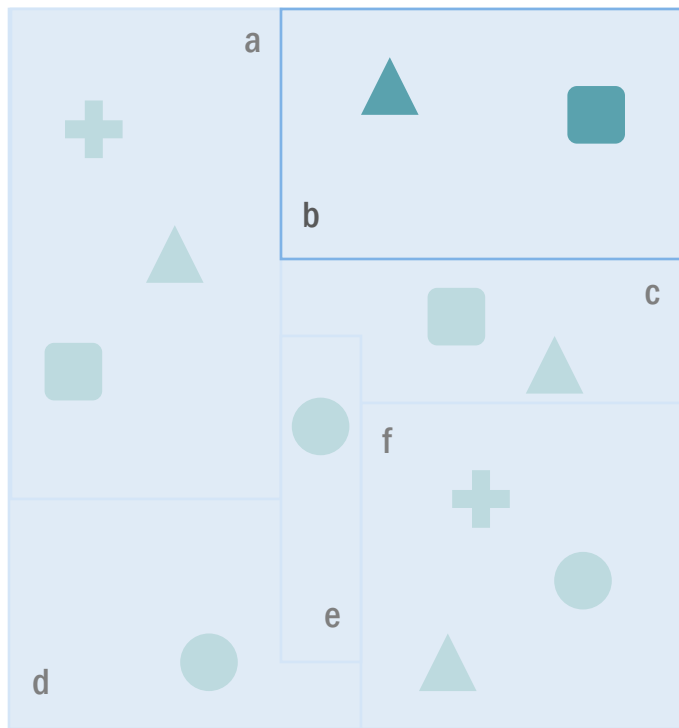
im allocation

district e

snu target	im	results distribution	im target
200 tests		100%	200 tests
		100%	200 tests



it's easy to figure things out with one mechanism in a snu

pepfarlandia



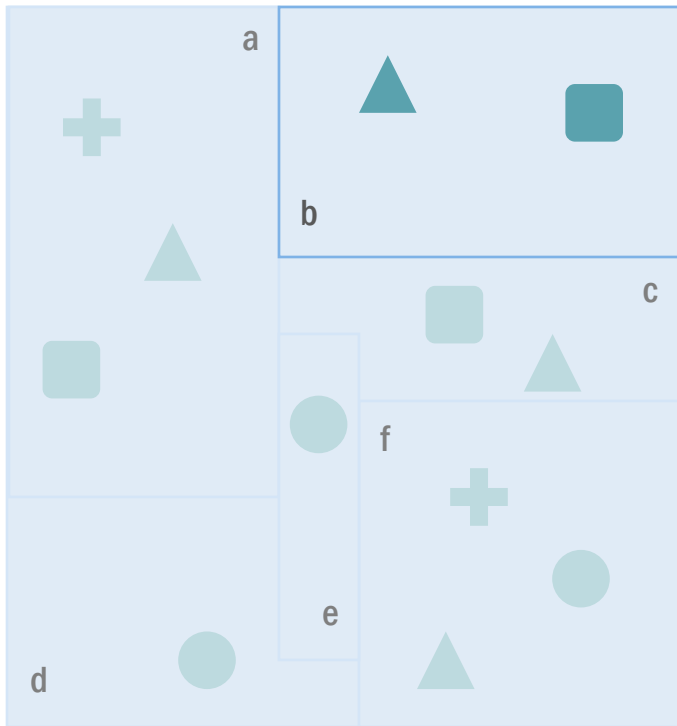
im allocation

district b

snu target	im	results distribution	im target
800 tests		70%	560 tests
		30%	240 tests
		100%	800 tests




but is more challenging with multiple mechanisms

pepfarlandia



im allocation

district b

snu target	im	results distribution	im target
800 tests		70%	560 tests
		40%	320 tests
		-10%	-80 tests
		100%	800 tests

and more challenging with dedups

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