Development of a Community Planning and Budget Allocation Tool to Reduce HIV Outcome Disparities

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NATIONAL
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CONFERENCE
ON HIV CARE & TREATMENT

Project Motivation and Goals

- Disparities in viral suppression across race/ethnicity subpopulations persist in many jurisdictions

- We developed a community planning tool to visualize how expanding different RHWAP services might impact viral suppression disparities

- The tool allows decision makers to
  - Compare different expansion scenarios
  - Estimate expansions costs
  - Facilitate community discussions about how to allocate new funding

- Intended to be used in combination with community-engaged discussions around community needs and priorities

Data Informing the Tool

- Causal statistical analysis to estimate change in probability of sustained viral suppression (VS) with service use (see poster #20427)
  - Data: 2015-2019 Minneapolis-St. Paul TGA RWHAP client data
  - Sustained VS: suppressed on a viral loads in a calendar year
- Five RWHAP services had positive impacts on sustained VS:
  1. ADAP
  2. Food aid (direct meal/food provision)
  3. Transportation assistance
  4. Financial aid (including food vouchers)
  5. Housing assistance
- Costs of expanding services were estimated via qualitative interviews with local service delivery organizations (see poster #20719)

RESOURCE ALLOCATION MODEL FOR MINNEAPOLIS-ST. PAUL RYAN WHITE HIV/AIDS PROGRAM

Date Created: 3/21/2022   Developed in collaboration with University of Minnesota, Hennepin County RWHAP, and Minnesota Department of Human Services

BASELINE INFORMATION   Note: these values should not be changed by the user.

Demographics and Viral Suppression Rates			Current Proportion of Clients Using Service (2019)					Risk Differences for Service Impact on Sustained Viral Suppression				
Population Group	Population Size	Sustained Viral Suppression*	ADAP	Food	Transport	Financial	Housing	ADAP	Food	Transport	Financial	Housing
African American	1,075	76%	30%	23%	36%	43%	2%	2.62%	4.74%	1.68%	3.61%	3.77%
African-born	523	84%	43%	7%	27%	38%	3%	0.73%	0.00%	0.00%	1.64%	2.06%
Hispanic	425	84%	62%	15%	18%	29%	4%	5.22%	0.81%	0.00%	3.13%	0.00%
White	1,302	85%	45%	30%	18%	37%	4%	4.27%	0.00%	1.53%	3.33%	0.47%

* Sustained viral suppression is defined as all viral load tests being suppressed during the year.

	Expansion costs, per new user				
	ADAP	Food	Transport	Financial	Housing
Default estimate	$ 32	$ 145	$ 200	$ 371	$ 2,371
Custom values	$ 32	$ 145	$ 200	$ 371	$ 2,371	<-- put in custom costs if you wish

USER INPUTS

1. Select services to expand and the order in which they would be prioritized or expanded (white cells).
2. Specify increase in service utilization (as % of population) for each expansion (white cells).
   Values must be ≤ (100% - current service utilization) so expanded utilization does not exceed 100%.
   Invalid entries will be highlighted in red.
3. View auto-populated expected impact of expanded services on utilization (yellow cells)

Select service(s)

Specify expansion amounts

Expansion Order	1st	2nd	3rd	4th	5th	
Service	Food	Financial	None	None	None	<-- choose service
Expansion Amount, By Race/Ethnicity						
African American	25%	5%	0%	0%	0%	<-- choose amt
African-born	0%	5%	0%	0%	0%	<--
Hispanic	0%	5%	0%	0%	0%	<--
White	0%	5%	0%	0%	0%	<--

Type of expansion costs	Default	<-- choose options

RESULTS

Expected Impact of Expansion on Viral Suppression Rates

Population	Sustained Viral Suppression Rates		
	Pre-expansion	Post-expansion	Difference
African American	75.6%	77.0%	1.37%
African-born	83.7%	83.8%	0.08%
Hispanic	83.5%	83.7%	0.16%
White	85.5%	85.7%	0.17%
Overall	81.8%	82.3%	0.54%

Total Expansion Cost	
$	100,658

Tool Interface – Outputs

USER INPUTS

1. Select services to expand and the order in which they would be prioritized or expanded (white cells).
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Expansion Order	1st	2nd	3rd	4th	5th	
Service	Food	Financial	None	None	None	<-- choose service
Expansion Amount, By Race/Ethnicity						
African American	25%	5%	0%	0%	0%	<-- choose amt
African-born	0%	5%	0%	0%	0%	<--
Hispanic	0%	5%	0%	0%	0%	<--
White	0%	5%	0%	0%	0%	<--

Type of expansion costs	Default	<-- choose options

Expected Impact of Expansion on Service Utilization					
Service	Food	Financial	None	None	None
Number of New Clients Receiving Service					
African American	268.75	53.75	-	-	-
African-born	-	26.15	-	-	-
Hispanic	-	21.25	-	-	-
White	-	65.10	-	-	-
Total Proportion of Clients Using Service After Expansion					
African American	48%	48%	0%	0%	0%
African-born	7%	43%	0%	0%	0%
Hispanic	15%	34%	0%	0%	0%
White	30%	42%	0%	0%	0%
Expansion cost					
Default costs	38,951.30	61,706.46	-	-	-

Post-expansion service use

RESULTS

Expected Impact of Expansion on Viral Suppression Rates			
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Total Expansion Cost	
$	100,658

Projected change in VS

Expansion Scenarios

Expansion scenario	Expansion costs	Sustained VS – Overall	Sustained VS – African American clients
No expansion (baseline)	$0	81.8%	75.6%
Meet food aid needs	$197,564	82.7%	78.2%
Meet transportation needs	$182,720	82.1%	76.3%
Meet financial aid needs	$252,629	82.4%	76.5%
Meet food, transportation, and financial needs	$632,913	83.6%	79.7%

Limitations

- Data informing the tool has limitations
  - Time period (2015-2019) may not generalize into future years
  - Services received outside of RWHAP are not observed
  - Small sample sizes for some services
- Service use impacts on viral suppression assumed independent
- Expansion costs are general estimates only
- Projections should be considered in the context of community needs, priorities, and preferences

Questions?

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