Utah Department of Health & Human Services

Funding Formula Adjustment Recommendations

State of Utah
Population Health
September 30, 2023

To:	Social Services Appropriations Subcommittee
From:	Braden Ainsworth, Tobacco Prevention and Control Program
Subject:	Funding Formula Adjustment Recommendations

Purpose

The Legislature intends that the Utah Department of Health and Human Services (DHHS) report by October 1, 2023, to the Social Services Appropriations Subcommittee, in collaboration with local health departments (LHDs), on options to adjust the funding formula for fiscal year (FY) 2025. The formula should adjust for areas with higher commercial tobacco[1] use rates collectively, as well as shifting more existing funding sources to address the rates of electronic cigarette use and the pros and cons of that approach.

Executive summary

The DHHS Tobacco Prevention and Control Program (TPCP) staff consulted with the Governance committee and the Utah Association of Local Health Departments (UALHD) for funding formula recommendations. The **current funding formula**, which has remained largely unchanged since the creation of the San Juan Public Health Department in 2016, is a careful calculation based on **land area, population, and tobacco use prevalence rates**. Land area is an important consideration in the funding formula as it takes into consideration distances for required activities such as retail inspections. Using a data-driven approach, TPCP epidemiologists developed seven scenarios and subsequently applied them to the current tobacco state funding allocation ($7.2 million) designated for local health departments (LHD). TPCP's mission is to use evidence-based and promising practices to promote health equity and reduce tobacco use and tobacco-related illness, death, and disparities among all Utahns. As part of the analysis, we considered multiple commercial tobacco and nicotine use prevalence rates. Staff also examined additional variables such as communities disproportionately impacted by tobacco use and health determinants that result in health inequities and inequalities. Based on the analysis, The Utah Department of Health and Human Services and the local health departments recommend the funding formula remain

[1] "Commercial tobacco" refers to tobacco that is manufactured and sold by the commercial tobacco industry which is linked to addiction, disease, and death. This differs from traditional tobacco, which is used by some American Indian tribes and communities for sacred and medicinal purposes. Any references to 'tobacco or nicotine' is in reference to commercial tobacco.

unchanged as the current allocation is equitable, appropriate, and is responsive to changing needs and demographics.

Evaluation, findings, and recommendations

Evaluation

Seven scenarios for evaluation were considered and they include a combination of nicotine use prevalence rates, land area, and population:

Scenario 1: 100% nicotine prevalence rates
Scenario 2: 80% original funding formula, 20% nicotine rates
Scenario 3: 80% original funding formula, 10% nicotine rates, 10% Utah Healthy Places Index (HPI)
Scenario 4: 80% original funding formula, 10% nicotine rates, 10% Utah Health Improvement Index (HII)
Scenario 5: Funding by small area, comparable to local health district
- The weight variable (small area, county, LHD) may have an impact on funding allocation.

Scenario 6: Weighting by population
Scenario 7: Children living in poverty

Note: "nicotine use prevalence rate" is a combined rate of all combustible tobacco and electronic cigarette product use

The analysis was conducted using the current allocation of tobacco state funds (cumulative of $7.2 million) by health district based on each scenario. The Utah Indicator Based Information System for Public Health (IBIS) was utilized as the primary data source.

Scenario 1: 100% nicotine prevalence rates
Scenario 1 was developed using data on current everyday smoking and vaping prevalence for both adults and youth in each local health district. Data was referenced using the Behavioral Risk Factor Surveillance System (BRFSS) for adult tobacco prevalence figures and the Student Health and Risk Prevention (SHARP) Survey data for youth prevalence. Both sources are available within IBIS. An equal weighting was given to all four prevalence rates for smoking and vaping among adults and youth; a fractional weight for overall prevalence was utilized.

Scenario 2: 80% original funding, 20% nicotine prevalence
Scenario 2 took the original funding formula and weighted funding amounts to 80%. The remaining 20% of overall funding was weighted the same as Scenario 1 using 100% nicotine prevalence by creating a fractional weight from the overall state prevalence figures broken down by the 13 LHD areas.

Scenario 3: 80% original funding, 10% nicotine prevalence, and 10% HPI
Scenario 3 took the original funding to 80% and used nicotine prevalence at 10% from the previous weighting solution. The last 10% of the $7.2 million funding was weighted by the Utah HPI score and aggregated on the local health district level. The Utah HPI combines 20 community characteristics, such as access to healthcare, housing, education, and more into a single indexed HPI score. The Utah HPI supports efforts to prioritize equitable community investments, develop

critical programs and policies across the state, and more.[2]

Scenario 4: 80% original funding, 10% nicotine prevalence, and 10% HII
Scenario 4 (similar to Scenario 3) applies 80% funding of the original formula and 10% on nicotine prevalence. The remaining 10% of funding is weighted on LHD ratings utilizing the Utah HII. The Utah HII is a health equity measure by geography. It includes nine indicators that describe determinants of health such as demographics, socio-economic deprivation, economic inequality, resource availability, and opportunity structure.[3]

Scenario 5: Funding by small area, comparable to local health district
Scenario 5 weighted all of the above scenarios based on small areas.[4] The results did not differ from weighting by local health districts.

Scenario 6: Weighting by population
Scenario 6 was conducted by weighting each local health district's funding by their proportion of total state population and turning it into a fraction for analysis. Data for the population was extracted from the Kem C. Gardner Institute at the University of Utah.[5]

Scenario 7: Children living in poverty
Scenario 7 evaluated the percentage of children living in poverty. Funding was revised to reflect a formula based on a proportion of the youth poverty within each health district.

Findings

Three scenarios highlighted notable shifts in funding:

Scenario 1: 100% nicotine prevalence
Scenario 6: Weighting per population
Scenario 7: Children living in poverty

Scenario 1: **100% nicotine prevalence** changed all LHD funding the most when compared with all other scenarios. Funding was significantly skewed toward four local health districts with the highest combined prevalence. Central, Southeast, and Weber-Morgan would receive an increase and the largest financial share with each district receiving about $800,000. Southeast health district would receive about a 250% increase in funding. San Juan, Southwest, TriCounty, and Wasatch would also receive a substantial increase in their share of funding. Under this funding scenario, the Utah County and Salt Lake health districts, 2 of the most populous health districts in the state, would see their funding cut down to only a third of their current level. This scenario doesn't appropriately account for the resource needs all LHDs have to implement prevention efforts.

Scenario 6: Weighting **per population** shifts much of the funding to high population health districts, with Salt Lake and Utah County health districts receiving an 80% increase in funding. This scenario would heavily penalize low population health districts. Districts such as the Southeast

[2] https://dhhs.utah.gov/utahhpi/use-utahhpi/
[3] https://healthequity.utah.gov/wp-content/uploads/Utah-HII-2022-Update.pdf
[4] https://ibis.health.utah.gov/ibisph-view/pdf/resource/UtahSmallAreaInfo.pdf
[5] https://gardner.utah.edu/demographics/population-estimates/

would see their funding cut to below one third of their current level. This scenario could exacerbate disparities observed in tobacco use rates in rural communities.

Scenario 7: Children living in **poverty** would take significant funding away from the Salt Lake and Utah County health districts and give it almost entirely to the San Juan health district even after verifying figures and performing additional data checks. The San Juan health district saw approximately a 750% funding increase in this scenario. This scenario doesn't appropriately account for the resource needs all LHDs have to implement prevention efforts, and contributes to inequities observed in other facets beyond childhood poverty.

The four remaining scenarios maintained the original funding formula to at least an **80% level**, and most districts within each scenario only saw a 15% variance in funding. However, when utilizing the 10% HII method (Scenario 4), the San Juan health district saw a 22% funding increase because the HII is heavily weighted toward poverty indicators.

Local Health Department	Current State Funding Formula Allocation	100% Nicotine Use Total State Funding	80% Original 20% Nicotine	80% Original 10% Nicotine 10% HPI	80% Original 10% Nicotine 10% HII	Per Population	Youth Poverty
Bear River	$603,092.30	$474,241.77	$577,322.20	$604,516.15	$587,317.40	$432,887.51	$437,829.83
Central	$512,343.13	$754,375.28	$560,749.56	$550,566.54	$544,306.35	$173,974.95	$624,033.33
Davis	$561,846.00	$388,216.52	$527,120.10	$590,850.84	$534,655.04	$800,253.04	$322,081.72
Salt Lake	$1,575,966.55	$551,443.92	$1,371,062.02	$1,371,853.26	$1,369,148.14	$2,604,591.52	$447,894.89
San Juan	$205,233.06	$242,194.17	$212,625.29	$188,405.87	$263,540.50	$31,856.22	$1,529,888.16
Southeast	$340,284.58	$822,754.33	$436,778.53	$382,470.92	$415,203.59	$87,166.91	$845,464.51
Southwest	$797,164.71	$560,267.02	$749,785.18	$731,045.17	$752,807.48	$589,021.50	$568,675.53
Summit	$230,142.35	$414,685.83	$267,051.04	$337,453.72	$269,603.99	$93,180.59	$291,886.56
Tooele	$251,826.65	$663,938.48	$334,249.02	$314,471.92	$320,724.75	$165,634.09	$301,951.61
Tri-County	$384,475.00	$688,202.01	$445,220.40	$385,722.43	$437,100.70	$123,262.07	$780,041.66
Utah County	$868,169.50	$291,162.39	$752,768.08	$807,555.29	$778,063.54	$1,486,837.62	$312,016.66
Wasatch	$217,974.40	$597,765.21	$293,932.56	$327,378.37	$284,794.47	$78,021.32	$301,951.61
Weber-Morgan	$723,483.03	$822,754.33	$743,337.29	$679,710.80	$714,735.31	$605,313.92	$508,285.21
TOTAL	**$7,272,001.28**	**$7,272,001.28**	**$7,272,001.28**	**$7,272,001.28**	**$7,272,001.28**	**$7,272,001.28**	**$7,272,001.28**

The above chart shows the funding distribution for the current funding formula compared to the scenarios evaluated.

Recommendation

Upon review, scenarios that maintained 80% of the current formula, coupled with nicotine prevalence and either the HPI or HII, saw no substantive changes in funding to a majority of health districts (Scenarios 2, 3, and 4). The recommendation is to maintain the current formula for local health districts. The current formula already includes a carefully balanced ratio of nicotine prevalence, area, and population, and seems to be the most equitable solution.

The last update to the funding formula was in 2016 with the creation of the San Juan Public Health Department. In the future, it may be beneficial to provide another analysis of the funding formula.

However, any analysis needs to be conducted in a methodical manner to minimize any potential unintended consequences. The relevant socio-demographics in Utah are changing at the local health district level.

Each local health district has nuanced situations that could justify increasing or decreasing funding. Without a clear and unified approach to the funding formula's metrics or weights, it may unintentionally penalize a health district simply based on size, geography, or rates alone.