

Low Income Subsidy (LIS) Targeting Spreadsheets: An Example of How the Spreadsheets Can Be Utilized

To aid local outreach efforts in targeting their resources, CMS has provided two excel spreadsheets, one at the county level and the other at the zip code level. These spread sheets contain the total number of Medicare beneficiaries, the estimated number of beneficiaries in the target audience, and the estimated percentage of the Medicare population in the target audience. The estimated number of beneficiaries in the target audience allows users to view the counties or zip codes that have the highest number of people estimated in the target audience. Outreach in these areas may reach the most beneficiaries. The estimated percentage of the Medicare population allows users to view areas with the highest density of people in the target audience. Outreach in these areas may be more efficient in that beneficiaries reached would be more likely to qualify for the low-income subsidy. Here we provide examples of how the data filters can be used to narrow the amount of data one looks at to target their efforts. A description of how the data was developed is at the end of this document.

The spreadsheets have seven columns including, State, two fips codes that allow use of the data with mapping software, county, total Medicare beneficiaries, estimated number in target audience, and estimated percent in target audience. The zip code spreadsheet has an additional column for the zip code. Each column has a filter which allows for a quick and easy analysis to find areas to target outreach. A filtered range displays only the rows that meet the criteria that are specified for a column. Figure 1 demonstrates how to filter for one state, in this case, North Carolina.

Figure 1: Filtering for A Particular State

	A	B	C	D	E	F	G
	State	fips_state_cd	fips_cnty_cd	County	Total Medicare Beneficiaries	Estimated Number in Target Audience	Estimated Percent in Target Audience
1	Kentucky	01	001	Autauga	7,300	301	
	Louisiana	01	003	Baldwin	31,179	886	
	Maine	01	005	Barbour	5,056	299	
	Maryland	01	007	Bibb	3,756	160	
	Massachusetts	01	009	Blount	9,025	468	
	Michigan	01	011	Bullock	1,746	94	
	Minnesota	01	013	Butler	4,207	301	
	Mississippi	01	015	Calhoun	22,344	1,916	
	Missouri	01	017	Chambers	7,124	533	
	Montana	01	019	Cherokee	5,128	367	
	Nebraska	01	021	Chilton	6,786	349	
	Nevada	01	023	Choctaw	3,330	233	
	New Hampshire	01	025	Clarke	5,233	355	
	New Jersey	01	027	Clay	3,025	195	
	New Mexico	01	029	Cleburne	2,840	334	
	New York	01	031	Coffee	8,224	419	
17	Alabama	01	033	Colbert	11,814	746	
18	Alabama	01	035	Conecuh	2,970	47	
19	Alabama	01	037	Cook	2,437	51	
20	National						

Now that we've narrowed our analysis to North Carolina, we can filter the counties to meet our needs. We've decided to identify the counties with the greatest number of beneficiaries in the target audience and then sort them so those with the highest percentage of beneficiaries in the target audience are at the top. The result, Figure 2, was accomplished by filtering for the top 10% in the Estimated Number in Target Audience column and then filtering in descending order in the Estimated Percentage column. Figure 2, shows that in Johnston County, North Carolina there are approximately 1,250 Medicare Beneficiaries in the target audience, representing 6.6% of all beneficiaries in that county. Figure 2 also shows that Mecklenburg county has the largest estimated number in the target audience, but that number represents only 2.9% of the total Medicare beneficiaries within the county.

People in North Carolina will tell you Johnston and Mecklenburg counties have different characteristics that would be important to understand when targeting outreach. For example, Johnston County, North Carolina is smaller with a population of approximately 121,965 people, is geographically located near the center of North Carolina and has ten towns, including: Smithfield (county seat), Clayton, Selma, Benson, Kenly, Four Oaks, Pine Level, Princeton, Wilson's Mills, and Micro. In contrast, Mecklenburg County, is the most populace county in the state with approximately 827,445 people. Mecklenburg County contains seven municipalities including the City of Charlotte and the towns of Cornelius, Davidson, and Huntersville to the north; and the towns of Matthews, Mint Hill, and Pineville to the south and east.

Figure 2: Narrowing Analysis to North Carolina Counties with the Greatest Number in the Target Audience

	A	B	C	D	E	F	G
1	State	County	Total Medicare Beneficiaries	Estimated Number in Target Audience	Estimated Percent in Target Audience	fips_state_cd	fips_cnty_cd
1857	North Carolina	Johnston	18,810	1,250	6.645	37	101
1867	North Carolina	Iredell	22,138	1,354	6.116	37	097
1874	North Carolina	Randolph	21,821	1,299	5.953	37	151
1885	North Carolina	Gaston	32,161	1,907	5.930	37	071
1890	North Carolina	Rowan	23,055	1,253	5.435	37	159
1892	North Carolina	Davidson	25,685	1,381	5.377	37	057
1897	North Carolina	Alamance	24,252	1,248	5.146	37	001
1905	North Carolina	Catawba	25,144	1,192	4.741	37	035
1907	North Carolina	Buncombe	41,262	1,893	4.588	37	021
1916	North Carolina	Forsyth	49,862	1,514	3.036	37	067
1932	North Carolina	Guilford	65,073	1,891	2.906	37	081
1936	North Carolina	Mecklenburg	83,415	2,416	2.896	37	119
1948	North Carolina	Wake	75,717	1,922	2.538	37	183
3094							
3095							
3096							
3097							
3098							
3099							

So far, the analysis suggests that outreach in Johnston county could be the most efficient and outreach to Mecklenburg as a whole would be considerably less efficient. However, Mecklenburg has so many members in the target audience, we would want to work there as well. Therefore, it would be useful if targeting could be narrowed even further to the zip code level. Figures 3 and 4 provide examples of zip code data for Johnston and Mecklenburg counties respectively. Figure 3 contains all the zip codes in Johnston County sorted by percentage in the target audience in descending order. This spreadsheet shows that the highest estimated percentage of Medicare beneficiaries in the target audience reside in zip code 27504 and the highest estimated number of the target audience in Johnston County, North Carolina reside in zip code 27520.

Figure 4 is a snapshot from the zip code spreadsheet where a filter limited analysis to zip codes with at least 30 in the estimated target audience. We filtered out counties with less than 30 in the target audience. As was done with Johnston County, the estimated percentage in the target audience by zip code is displayed in descending order. This spreadsheet shows that the highest estimated number of the target audience in Mecklenburg County, North Carolina reside in zip code 28208 and after the filters the highest estimated percent reside in zip code 28206.

Figure 3: All Johnston County Zip Codes by Estimated Percentage in Target Audience

The screenshot shows an Excel spreadsheet titled "Zipcode Freqs 24129 (2) BA.xls". The spreadsheet displays data for Johnston County, North Carolina, sorted by the estimated percentage of Medicare beneficiaries in the target audience in descending order. The columns are: State, County, Zipcode, Total Medicare Beneficiaries, Estimated Number in Target Audience, Estimated Percent in Target Audience, fips_state, and fips_cd. The data rows are as follows:

	A	B	C	D	E	F	G	H
1	State	County	Zipcode	Total Medicare Beneficiaries	Estimated Number in Target Audience	Estimated Percent in Target Audience	fips_state	fips_cd
19093	NORTH CAROLIN	Johnston	27504	2,085	192	9.209	37	101
19106	NORTH CAROLIN	Johnston	27524	1,784	150	8.408	37	101
19110	NORTH CAROLIN	Johnston	27592	1,145	89	7.773	37	101
19113	NORTH CAROLIN	Johnston	27576	2,219	172	7.751	37	101
19132	NORTH CAROLIN	Johnston	27520	2,997	217	7.241	37	101
19133	NORTH CAROLIN	Johnston	27569	1,147	79	6.888	37	101
19139	NORTH CAROLIN	Johnston	27557	1,062	72	6.780	37	101
19140	NORTH CAROLIN	Johnston	27577	3,733	196	5.250	37	101
19145	NORTH CAROLIN	Johnston	27527	973	36	3.700	37	101
19146	NORTH CAROLIN	Johnston	27593	91	3	3.297	37	101
19155	NORTH CAROLIN	Johnston	27568	270	2	0.741	37	101
19156	NORTH CAROLIN	Johnston	27555	185	1	0.541	37	101
30136								
30137								
30138								
30139								
30140								
30141								
30142								

**Figure 4: Mecklenburg County Zip Codes with at Least 30
In the Target Audience by Estimated Percentage in Target Audience**

	A	B	C	D	E	F	G	H
1	State	County	Zipcode	Total Medicare Beneficiaries	Estimated Number in Target Audience	Estimated Percent in Target Audience	fips_state	fips_c
19419	NORTH CAROLIN	Mecklenburg	28206	1,362	104	7.636	37	119
19420	NORTH CAROLIN	Mecklenburg	28202	691	52	7.525	37	119
19421	NORTH CAROLIN	Mecklenburg	28205	4,417	315	7.132	37	119
19422	NORTH CAROLIN	Mecklenburg	28203	999	70	7.007	37	119
19423	NORTH CAROLIN	Mecklenburg	28204	444	31	6.982	37	119
19424	NORTH CAROLIN	Mecklenburg	28208	3,762	228	6.061	37	119
19425	NORTH CAROLIN	Mecklenburg	28215	4,626	217	4.691	37	119
19426	NORTH CAROLIN	Mecklenburg	28217	2,085	96	4.604	37	119
19427	NORTH CAROLIN	Mecklenburg	28273	1,348	58	4.303	37	119
19428	NORTH CAROLIN	Mecklenburg	28213	2,352	91	3.869	37	119
19429	NORTH CAROLIN	Mecklenburg	28216	4,869	183	3.758	37	119
19430	NORTH CAROLIN	Mecklenburg	28214	3,066	106	3.457	37	119
19431	NORTH CAROLIN	Mecklenburg	28262	1,392	48	3.448	37	119
19432	NORTH CAROLIN	Mecklenburg	28209	2,548	81	3.179	37	119
19433	NORTH CAROLIN	Mecklenburg	28227	4,950	146	2.949	37	119
19434	NORTH CAROLIN	Mecklenburg	28212	3,081	78	2.532	37	119
19435	NORTH CAROLIN	Mecklenburg	28210	5,353	113	2.111	37	119
19436	NORTH CAROLIN	Mecklenburg	28211	4,089	67	1.639	37	119
19437	NORTH CAROLIN	Mecklenburg	28269	4,030	66	1.638	37	119

How were estimations derived?

We used multiple sources of data and some approximations to estimate these numbers. First, we created a file of beneficiaries with no known source of prescription drug coverage. This file was created using Medicare Part D enrollment data, data reported by employers receiving retiree drug subsidies, and enrollment information about creditable drug coverage from other federal, state, and employer sources.

Next, we attempted to identify low income beneficiaries who might be eligible for the LIS. CMS does not have income information for beneficiaries. Therefore we needed to approximate. We geo-coded each beneficiary's address into a census block group. We then assigned the median household income for the population age 65 and over for the block group (provided by the Census Bureau) to the beneficiary. Earlier CMS estimates indicate that up to 30 percent of beneficiaries may be eligible for the LIS. Using this as a guide, we created a file containing the 30 percent of beneficiaries with the lowest assigned incomes.

We then combined the two files above to create a file of beneficiaries with no known source of prescription drug coverage living in the lowest income areas. Counts of beneficiaries were aggregated to the zip code and county level. Zip codes and counties with fewer than 10 beneficiaries were excluded for confidentiality purposes. The county and zip-level files will be provided to partners to guide their LIS outreach efforts. While not the actual numbers of LIS

eligible individuals, the data in these files can be used identify geographic areas with large numbers of beneficiaries who might be eligible for the low income subsidy and who have no other drug coverage.