Regional Variations in Payer Mix and Connecticut's EMS Services

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Payer Mix and Sustainability

-How payer mix limits the Sustainability of CT EMS Services

-Payer Type Range Across Connecticut

-EMS Region 1-5 – Payer Mix by Hospital

-Payer Mix – All CT Hospitals

-Averaged Hospital Payer Mix by EMS Region

-The Current State of CT EMS Payer Mix Data

Payer mix affects every part of the healthcare system, but as billing for service is the primary (often the sole) source of income for ambulance services, it can have a disproportionate effect here. Combined with our state's extreme economic gradients over small geographical distances, the subtle currents in payer mix add a turbulence to the financial management of ambulance services that requires better understanding at the state level.

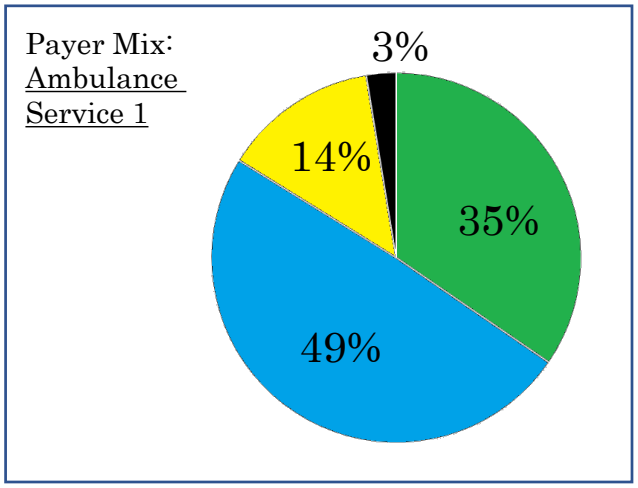
Until we develop the data related to payer mix using only EMS service billing data, the hospital system payer mix data allows us to map the state in a way that helps us see the insurance payment ecosystem CT EMS services find themselves operating in.

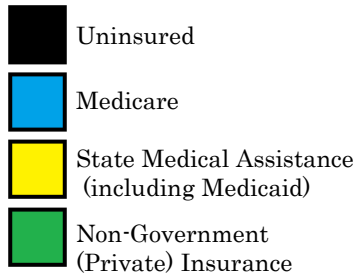
One of the next planned applications of this project will bring together payer mix data, call volume, and annual revenue with the goal of understanding the effectiveness of ambulance services in turning call volume into revenue and to develop some benchmarks for documentation and billing practices.

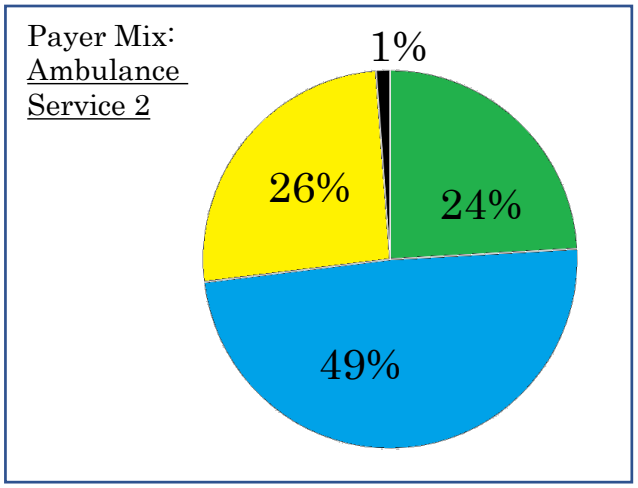
Payer Mix and Connecticut EMS Services

A hypothetical: two Connecticut ambulance services 30 miles apart complete the same number of the same type of calls in a year. Both have excellent documentation practices and insurance info collection rates, and they even use the same billing company.

They bill the exact same amount to their patients' insurance, but at the end of the year, one service has been reimbursed $25,000 less than the other. Two identical sets of ambulance bills result in wildly different amounts actually paid due to the breakdown of their patients' insurance type, AKA the payer mix.







Let's run a year's worth of call volume (at 2.5 transports per day) for these two services:

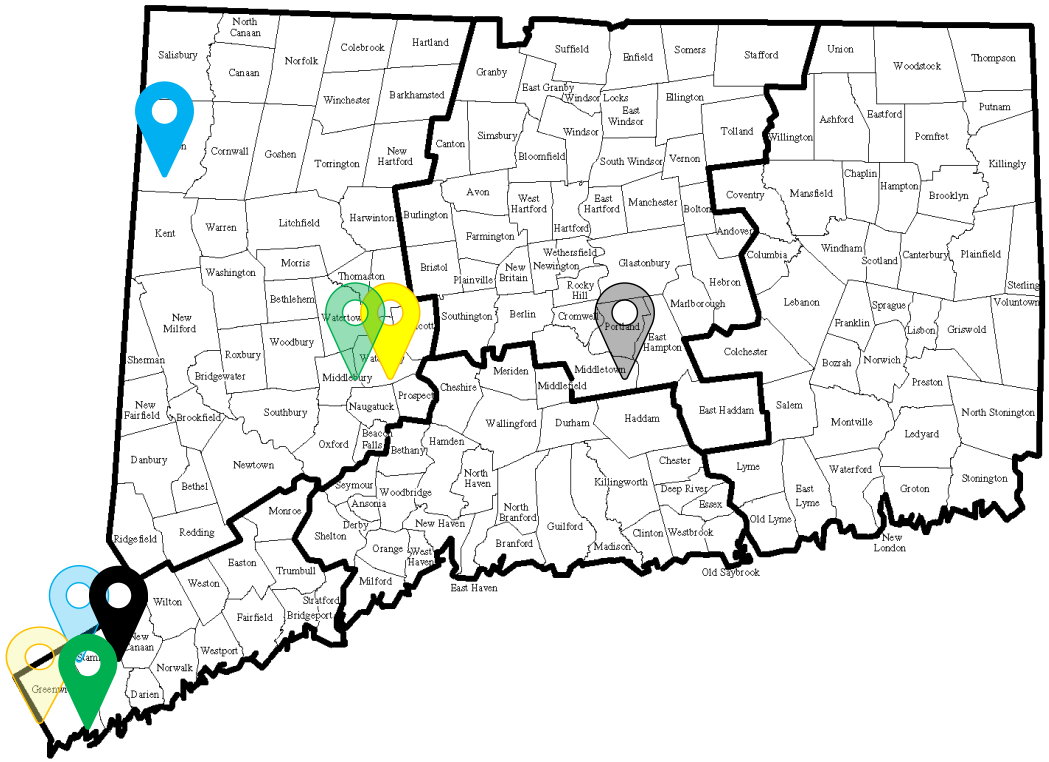
- The difference between 14% and 26% Medicaid patients = $31,608 difference in reimbursement.
- The difference between 35 % and 24% Private Insurance patients = $48,312 in reimbursement.
- The difference between 1% and 3% of patients without insurance = (optimistically) $7,317 in revenue.

And at the end of the year, with these variations totaled up, Service 1 has been reimbursed $24,921 more for completing the same number of the same type of calls.

Payer Type Range Across Connecticut

	Lowest Percentage	Highest Percentage
Non-government (Private) insurance	**24.1%** - Waterbury Hospital	**47.3%** - Greenwich Hospital
Medicare	**40.8%** - Stamford Hospital	**61.7%** - Sharon Hospital
State Medical Assistance (including Medicaid)	**9.6%** - Greenwich Hospital	**27.8%** - St. Mary's
Uninsured	**1.0%** - Middlesex Hospital	**4.1%** - Stamford Hospital

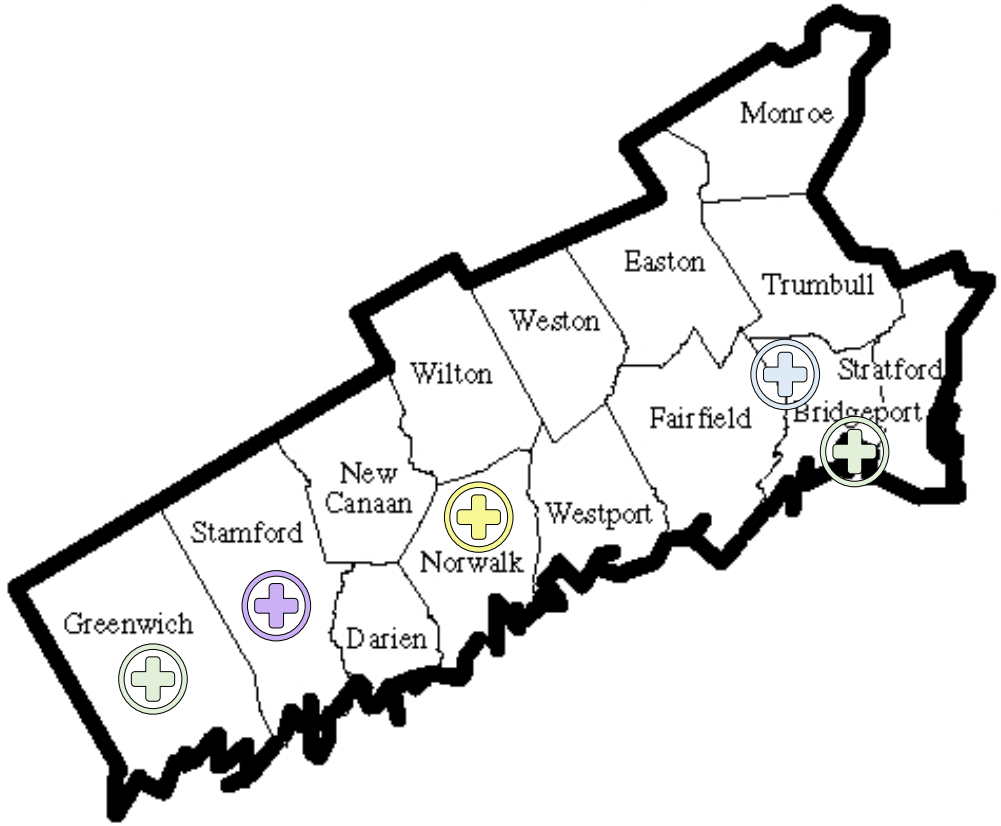
Note: Just by the numbers, CCMC would be the highest and lowest for several categories, but it has been excluded because its pediatric focus makes for an uneven demographic comparison with the rest of the state's hospitals.



EMS Region 1 – Payer Mix by Hospital

Data from CT Office of Health Strategy

	Statewide - Average Hospital Payer Mix	Region 1 - Average Hospital Payer Mix
Non-government (Private) insurance	31.00%	33.90%
Medicare	44.60%	44.60%
State Medical Assistance (incl. Medicaid)	22.20%	18.30%
Uninsured	2.10%	3.30%



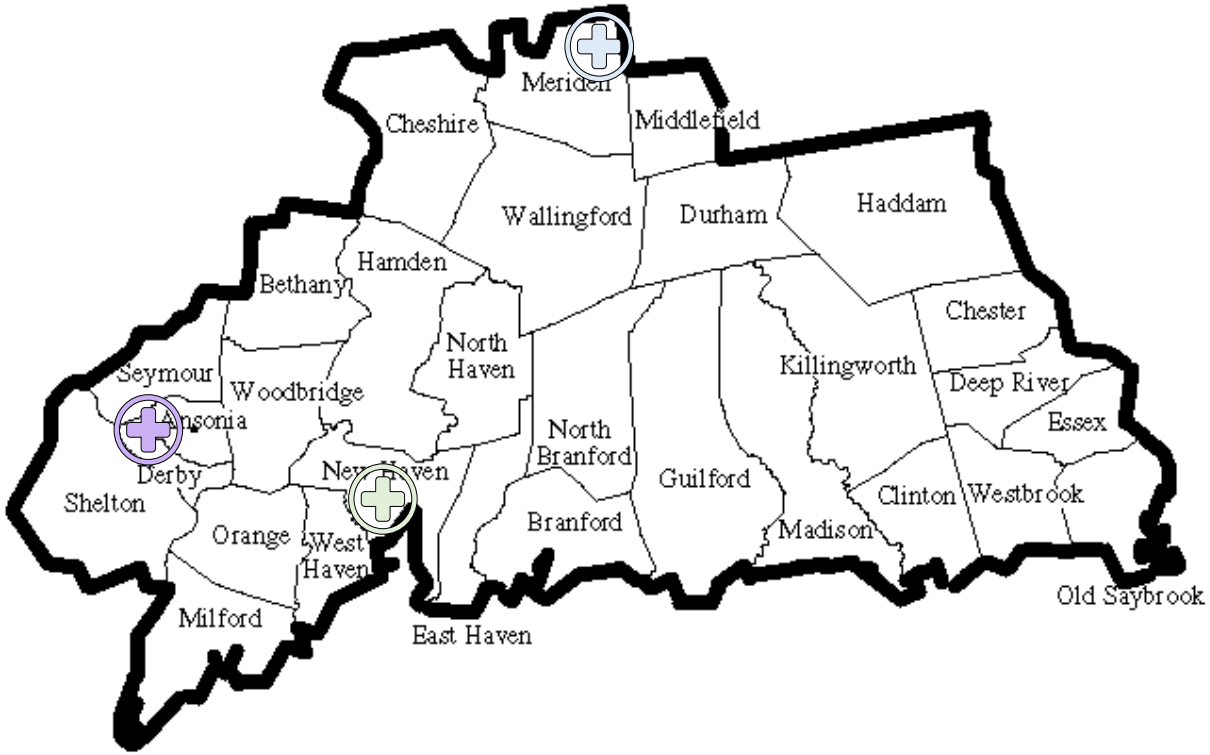
Yale Network
Hartford Network
Nuvance Network
Trinity Network
Independent Hospital

	Greenwich Hospital	Stamford Hospital	Norwalk Hospital	St. Vincent's Hospital	Bridgeport Hospital
Non-government (Private) insurance	47.3%	38.7%	32.0%	25.4%	26.2%
Medicare	41.3%	40.8%	46.5%	50.5%	43.7%
State Medical Assistance (incl. Medicaid)	9.6%	16.5%	17.6%	20.3%	27.4%
Uninsured	1.8%	4.1%	3.9%	3.8%	2.7%

EMS Region 2 – Payer Mix by Hospital

Data from CT Office of Health Strategy

	Statewide - Average Hospital Payer Mix	Region 2 - Average Hospital Payer Mix
Non-government (Private) insurance	31.00%	31.30%
Medicare	44.60%	46.10%
State Medical Assistance (incl. Medicaid)	22.20%	21.00%
Uninsured	2.10%	1.60%



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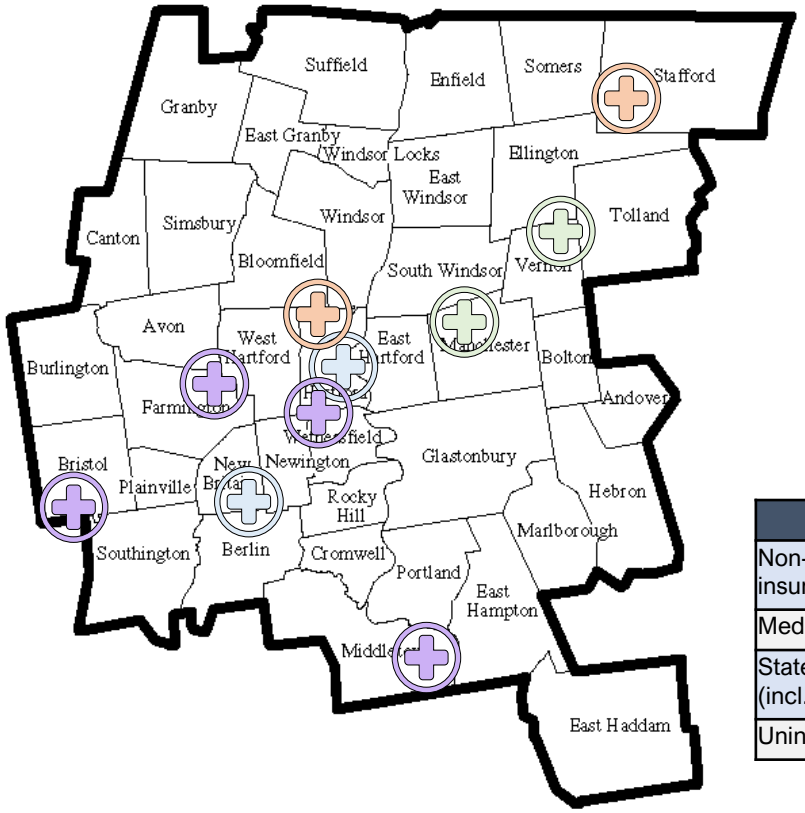
Independent Hospital

	Griffin Hospital	Midstate Hospital	Yale-New Haven Hospital (including St. Raphael's Campus)
Non-government (Private) insurance	34.0%	29.0%	31.0%
Medicare	44.3%	51.0%	43.0%
State Medical Assistance (incl. Medicaid)	20.6%	18.6%	23.9%
Uninsured	1.2%	1.4%	2.2%

EMS Region 3 – Payer Mix by Hospital

Data from CT Office of Health Strategy

	Statewide - Average Hospital Payer Mix	Region 3 - Average Hospital Payer Mix
Non-government (Private) insurance	31.00%	30.97%
Medicare	44.60%	42.20%
State Medical Assistance (incl. Medicaid)	22.20%	25.32%
Uninsured	2.10%	1.53%



Yale Network
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Independent Hospital

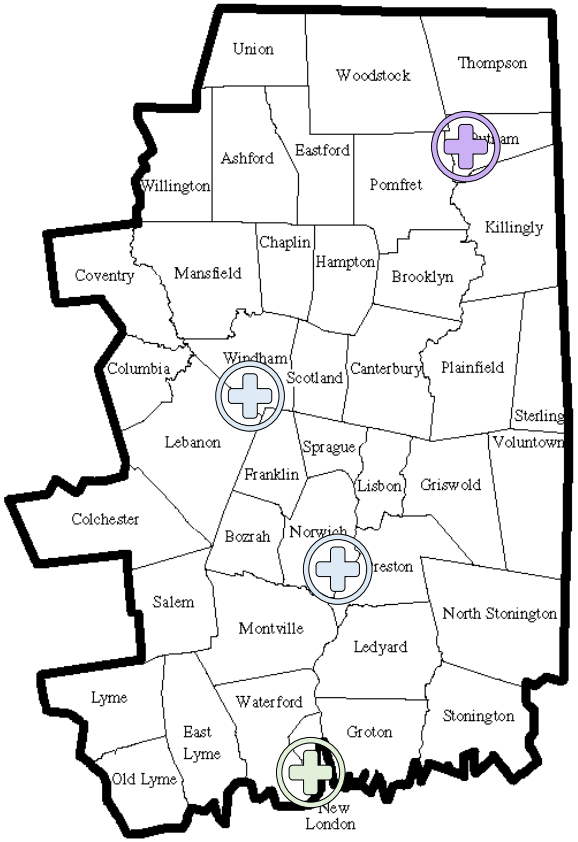
	St. Francis	Johnson
Non-government (Private) insurance	30.4%	30.9%
Medicare	46.6%	49.6%
State Medical Assistance (incl. Medicaid)	21.6%	18.3%
Uninsured	1.4%	1.2%

	Middlesex Hospital	Bristol Hospital	UCONN	CCMC	Hospital of Central CT (incl. Bradley)	Hartford	Manchester	Rockville
Non-government (Private) insurance	32.4%	27.9%	31.5%	41.9%	25.1%	28.2%	30.0%	31.4%
Medicare	51.1%	46.6%	41.7%	1.1%	46.4%	48.3%	46.8%	43.8%
State Medical Assistance (incl. Medicaid)	15.5%	23.9%	24.1%	56.6%	26.7%	21.7%	21.6%	23.2%
Uninsured	1.0%	1.6%	2.7%	0.5%	1.9%	1.8%	1.5%	1.7%

EMS Region 4 – Payer Mix by Hospital

Data from CT Office of Health Strategy

	Statewide - Average Hospital Payer Mix	Region 4 - Average Hospital Payer Mix
Non-government (Private) insurance	31.00%	29.1%
Medicare	44.60%	47.8%
State Medical Assistance (incl. Medicaid)	22.20%	21.5%
Uninsured	2.10%	1.7%



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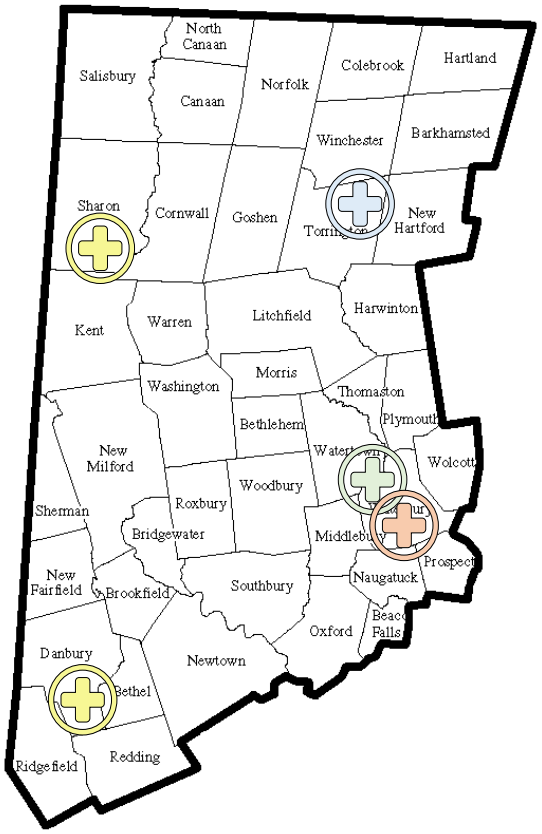
Independent Hospital

	Day-Kimball	Backus Hospital	Windham Hospital	Lawrence & Memorial
Non-government (Private) insurance	31.5%	28.7%	28.8%	27.5%
Medicare	45.7%	48.6%	46.3%	50.5%
State Medical Assistance (incl. Medicaid)	21.8%	21.2%	22.9%	19.9%
Uninsured	1.1%	1.6%	2.0%	2.1%

EMS Region 5 – Payer Mix by Hospital

Data from CT Office of Health Strategy

	Statewide - Average Hospital Payer Mix	Region 5 - Average Hospital Payer Mix
Non-government (Private) insurance	31.00%	27.2%
Medicare	44.60%	50.7%
State Medical Assistance (incl. Medicaid)	22.20%	20.2%
Uninsured	2.10%	1.9%



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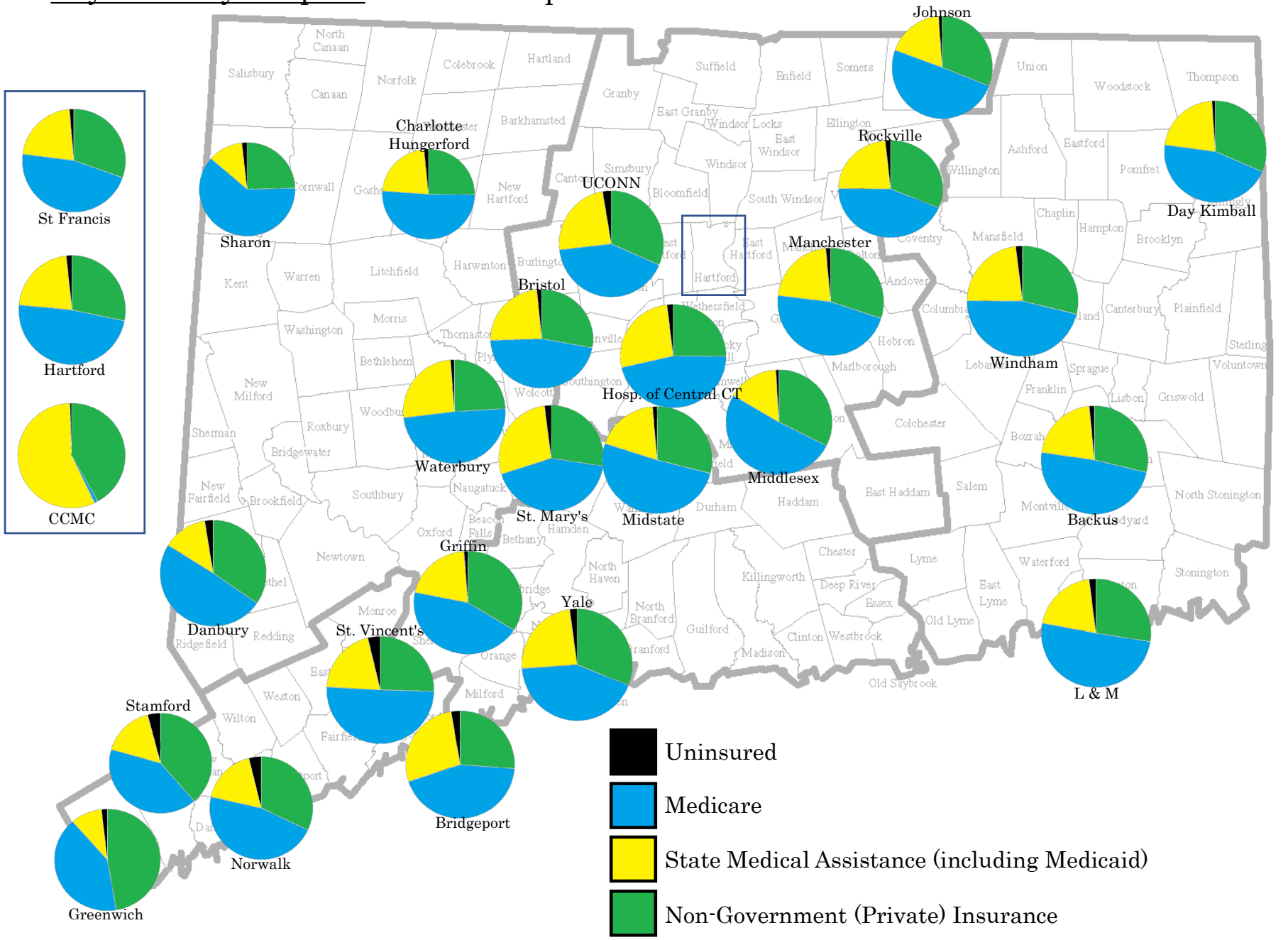
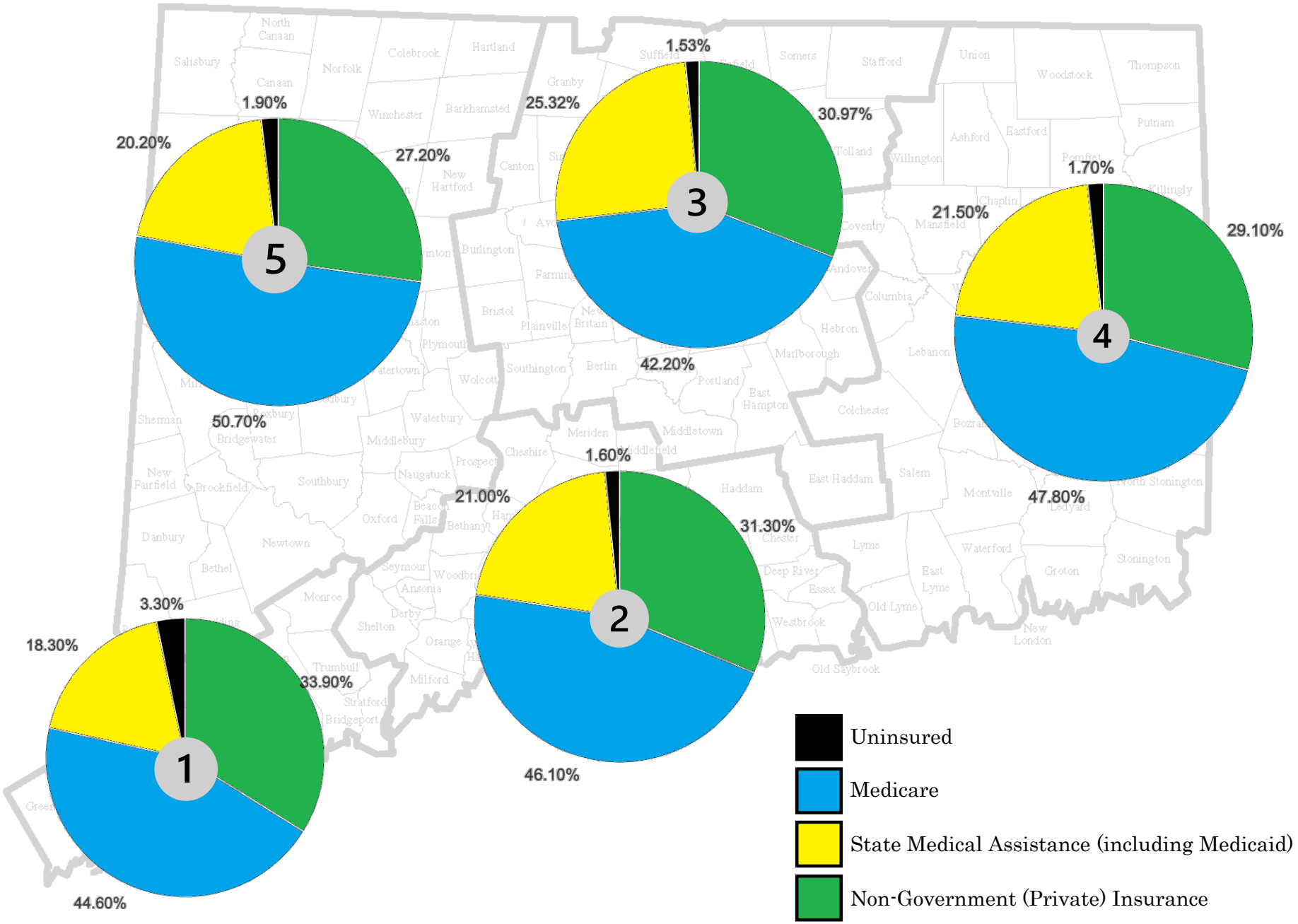
	Danbury	Sharon	Charlotte Hungerford	Waterbury	St. Mary's
Non-government (Private) insurance	34.6%	24.6%	25.2%	24.1%	27.4%
Medicare	49.3%	61.7%	50.9%	48.9%	42.8%
State Medical Assistance (incl. Medicaid)	13.6%	11.8%	22.3%	25.7%	27.8%
Uninsured	2.6%	1.8%	1.6%	1.2%	2.1%

Payer Mix by Hospital - All CT Hospitals



Averaged Hospital Payer Mix by EMS Region

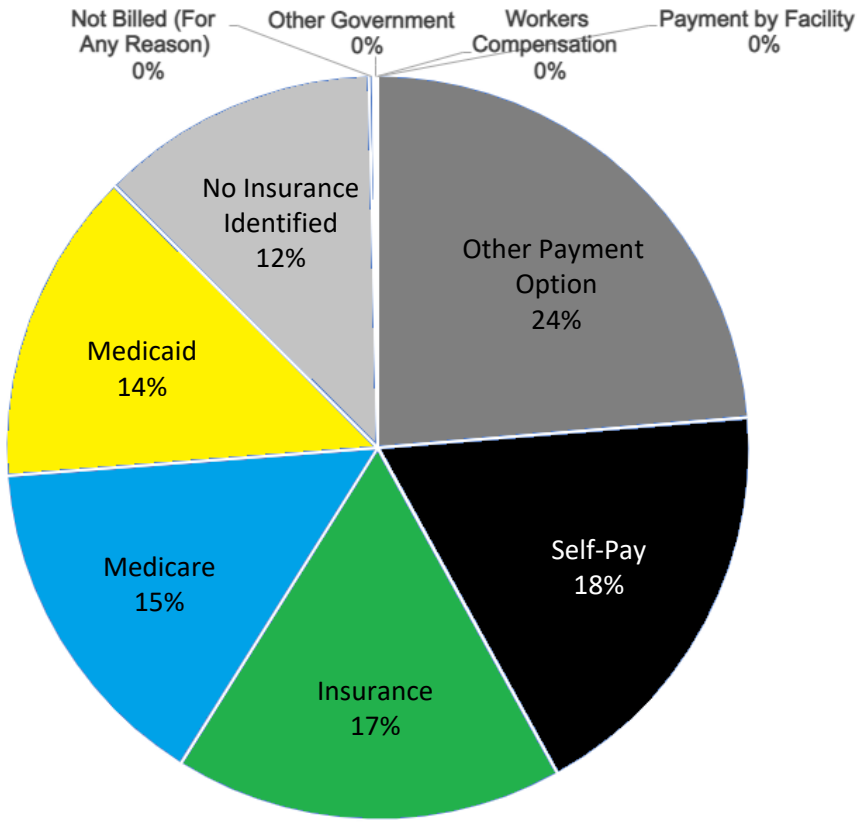


Current State of CT EMS Payer Mix Data

Some payer information was included in OEMS' 2020 CEMSTARS Data Report released in December of 2021. This report draws on ePCRs submitted by all of the state's EMS services, but the information reported is of limited utility for several reasons.

This data was reported using different payer types than the standard. It's also based on only 291,041 of the total 779,016 ePCRs, so these numbers represent only 37% of the total EMS payer data for that year.

	CEMSTARS 2020 Data
Other Payment Option	68,972
Self Pay	53,146
Insurance	49,282
Medicare	43,395
Medicaid	39,736
No Insurance Identified	35,427
Not Billed (For Any Reason)	508
Other Government	327
Workers Compensation	217
Payment by Facility	23



This raises questions about the actual rate and quality of insurance information collection by EMS providers in the state. If an ambulance patient has insurance, but that info is not collected and documented by the crew, it can result in the patient being billed for the full amount of the transport. There are usually billing process checks in place to prevent this.

This data, along with a general lack of familiarity with payer mix, billing, and reimbursement among CT EMS providers highlights this as a focus area for efforts to increase the financial sustainability of EMS services.