



 **Gaylord**
Specialty Healthcare

www.gaylord.org



Community Health Needs Assessment
December 2015

Introduction

Gaylord Specialty Healthcare is a not-for-profit long term acute care hospital located in Wallingford, Connecticut. Our mission is to preserve and enhance a person's health and function, guided by our values including clinical excellence, compassion, integrity, respect and accountability.

Long Term Acute Care Hospital Definition

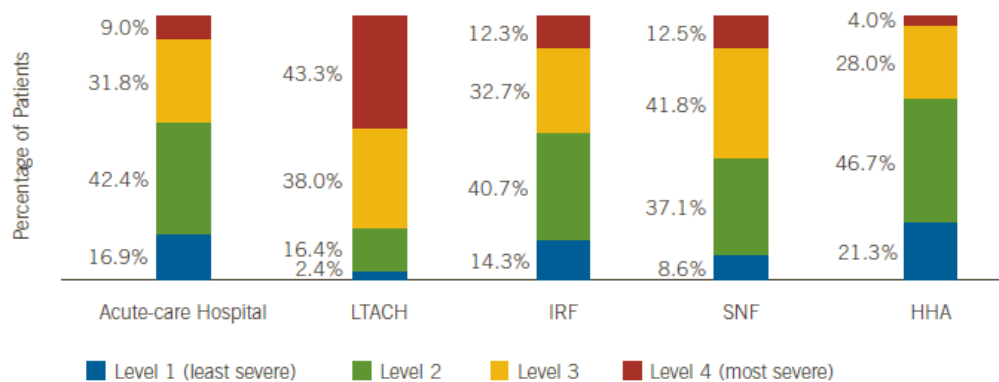
LTACH's are part of the post-acute care continuum. Many of the patients treated at Gaylord are transferred from an acute care hospital's intensive or critical care unit. As an LTACH, Gaylord focuses on patients who require extended medical and rehabilitation care for individuals with clinically complex problems, such as multiple acute or chronic conditions, that need hospital-level care for relatively extended periods (25 days). Our primary services include comprehensive rehabilitation for pulmonary and respiratory care, including vent weaning, traumatic brain injury, stroke and spinal cord injury.

To qualify as an LTACH, Gaylord Hospital must meet Medicare's conditions of participation for acute care hospitals and have an average inpatient length of stay greater than 25 days.

According to Medicare data, LTACH patients have an overall severity of illness that is greater than any other post-acute care setting. Gaylord Hospital's patients require frequent physician oversight and advanced nursing care. Research suggests that patients who receive post-acute care following a major health episode see greater and more rapid clinical improvements compared to patients discharged to their homes without follow-up. Source: Research Triangle Institute. (2009). *Examining Post-Acute Care Relationships In An Integrated Hospital System*. Waltham, MA. There is evidence from national studies that some patients do better in LTACHs when compared to traditional acute hospital care. Patients are weaned from ventilators earlier and have longer survivability after discharge from a LTACH than from traditional acute care alone. This phenomenon is most evident with patients who have been ventilator dependent (Gage, B., Bartosch, W., & Green, B.A., 2007).

Patient severity of illness varies by PAC setting.

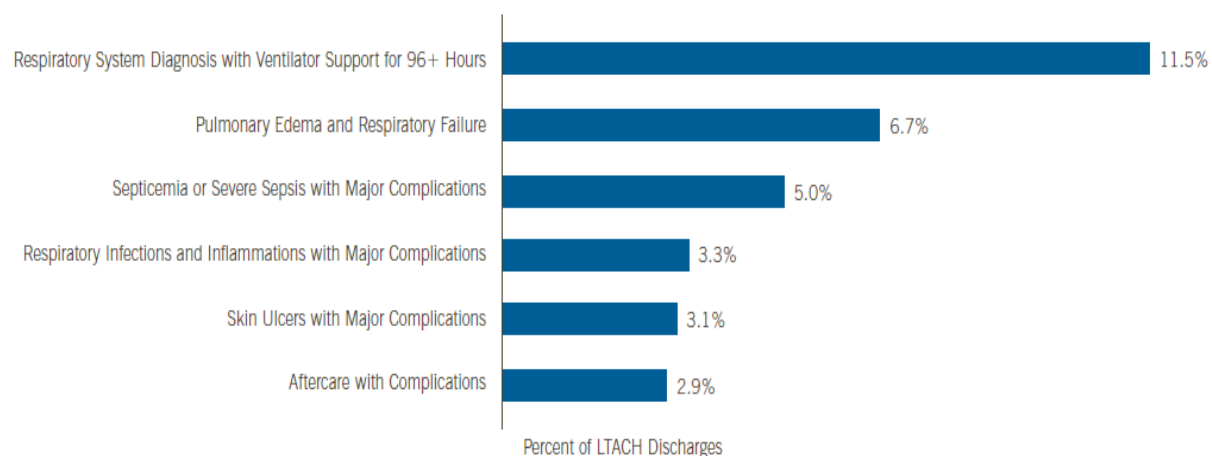
Chart 1: Short Term Acute-care Hospital (STACH) and PAC Severity of Illness (SOI), in Prior STACH Stay



Source: Medicare Payment Advisory Committee (2010)

Three of the top conditions among Medicare beneficiaries admitted to LTACHs require intensive respiratory care.

Chart 4: Leading Diagnoses Among Medicare LTACH Patients, 2008



Source: Medicare Payment Advisory Commission. (2010). *March Report to the Congress: Long-term Care Hospital Services*. Washington, DC.

Source: Medicare Payment Advisory Committee (2010)

Community Health Needs Assessment Rationale

In March 2010, the U.S. Congress passed the Patient Protection and Affordable Care Act that included new requirements for private not-for-profit hospitals. For tax years beginning March 2012, each hospital must:

- Conduct a Community Needs Assessment once every three years, including public health and community input. The Community Needs Assessment is a systematic process to identify and analyze community health needs and prioritize these needs.
- Develop action plans to address community needs by adopting an implementation strategy which must be approved by the Board of Directors.
- Report the process and plan to the community and on IRS Form 990.

THE COMMUNITY GAYLORD SERVES

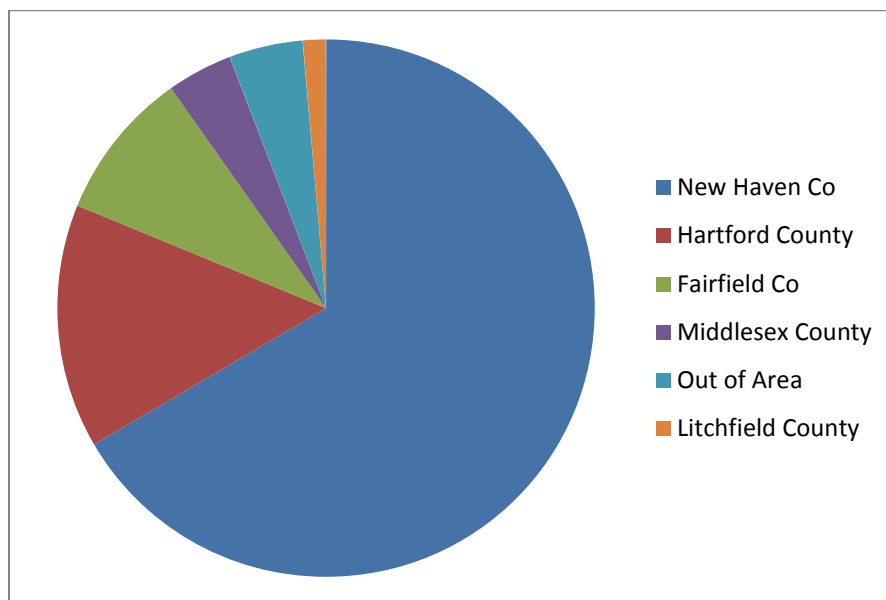
Gaylord Specialty Healthcare includes Gaylord Hospital, located in Wallingford, Connecticut, provides inpatient and outpatient physical therapy, occupational therapy, and speech therapy. Additionally, Gaylord has an outpatient orthopedic and physical therapy center, located in North Haven and a comprehensive sleep medicine program with facilities located in North Haven, Guilford, Glastonbury, and Trumbull. The Hospital's inpatient program has two major divisions: medically complex, including a pulmonary and ventilator weaning program and a rehabilitation division, including a brain injury, spinal cord injury, and stroke program. Because Gaylord is a long term acute care hospital, its inpatient population originates from acute care hospitals and are admitted to Gaylord once their medical condition is no longer deemed acute, yet still require intensive medical care.

The community need for a LTACH has multifaceted medical, nursing, rehabilitation and mental health care needs. Patients have primary diagnoses including extensive wounds, resistant infectious diseases, serious respiratory conditions, neurological disorders, orthopedic problems, multisystem complications, traumatic brain and spinal cord injuries, and complex stroke. The key distinction of patients who are cared for in a LTACH is the multiplicity of diagnoses and problems leading to an aggregate of care need that extends beyond the capabilities of a typical acute care hospital.

Another aspect of the community Gaylord serves is to consider the needs of the acute care hospitals from which Gaylord derives the majority of its referrals. LTACHs have been shown to benefit acute care hospitals by providing care for patients who require a longer length of stay, and who need more acute medical care for their recovery process but no longer require services in a traditional acute care hospital. Admissions to LTACHs thereby shorten length of stay for appropriate patients and produce more efficient throughput in the acute care setting.

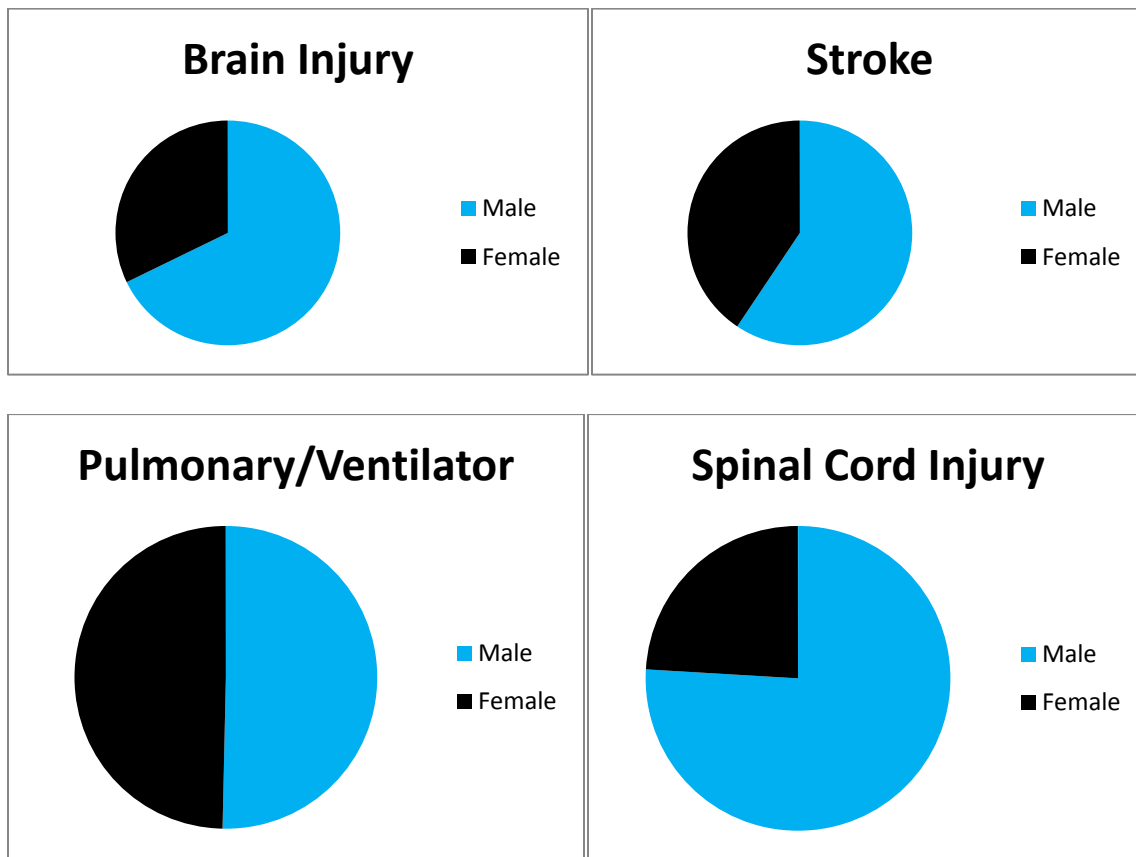
Because of the unique level of service provided by Gaylord Hospital, and LTACHs in general, we define our community as the acute care hospitals from which we admit 80% of our patients and patients requiring post-acute level inpatient care for Spinal Cord Injury, Traumatic Brain Injury, Stroke, and Pulmonary/Ventilator Weaning. (See Appendix for list of Acute Care DRG's that are most highly correlated to need for LTACH level of care).

During the fiscal year, 2012, Gaylord Hospital received admissions from acute care hospitals across the State of Connecticut as well as from out of the area. The following graphic illustrates admissions to Gaylord by county location of the referring hospital. New Haven County had the greatest number of admissions from referral hospitals.



NEW HAVEN COUNTY	HARTFORD COUNTY	FAIRFIELD COUNTY	MIDDLESEX COUNTY	LITCHFIELD COUNTY	OTHER
Yale New Haven Hospital	Hartford Hospital	Bridgeport Hospital	Middlesex Hospital	Charlotte Hungerford Hospital	Backus Hospital
Hospital of St. Raphael	HOCC	St. Vincent's Medical Center			Lawrence and Memorial Hospital
St. Mary's Hospital	St. Francis Hospital and Medical Center	Stamford Hospital			Out of Area
MidState Medical Center	Bristol Hospital	Greenwich Hospital			
Waterbury Hospital	UConn	Danbury Hospital			
Griffin Hospital					
Milford Hospital					
HOCC-Bradley					

Patient Gender by Program, Gaylord Hospital



PULMONARY /VENTILATOR CARE

Gaylord Hospital admits pulmonary patients directly from acute care hospital Intensive Care Units, and Medical/Surgical Units who are well enough to leave an acute care setting, but still require ongoing medical or nursing care. On average, our patients spend about 25 days in our Inpatient Pulmonary Program and typically continue their care in our Outpatient Program once they are discharged from the Hospital.

Patients typically have respiratory complications resulting from neurological disorders including muscular dystrophy and post-polio syndrome; are currently on a mechanical ventilator and are a candidate for ventilator weaning; have respiratory complications resulting from spinal cord injury; have difficulty managing their diagnoses of COPD, emphysema, chronic bronchitis, restrictive lung disease, and other pulmonary conditions.

BRAIN INJURY

The inpatient component of Gaylord's Brain Injury program treats patients emerging from coma following injury. Patients with brain injury are guided through a continuum of care that takes them from post-coma stages through community reentry. This may include some or all of the following:

- Intensive inpatient rehabilitation, including an Early Recovery program
- Day Treatment program: Aphasia Day Program, Cognitive Day Program
- Inpatient Neurobehavioral program
- Traurig Transitional Living Center, located on the Wallingford campus
- Center for Concussion Care

STROKE

Stroke services at Gaylord are designed to meet the needs of people of all ages who have had a stroke. Inpatient and outpatient services are available. Patients are admitted to Gaylord after their condition has been medically stabilized and no longer require the services of an acute care hospital.

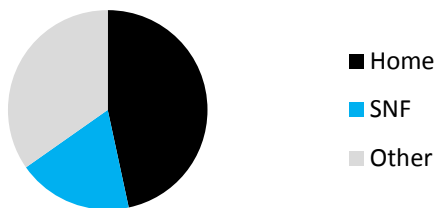
Individualized therapy programs deal with impairments caused by stroke such as:

- Partial paralysis
- Speech loss
- Swallowing problems
- Perceptual or visual problems

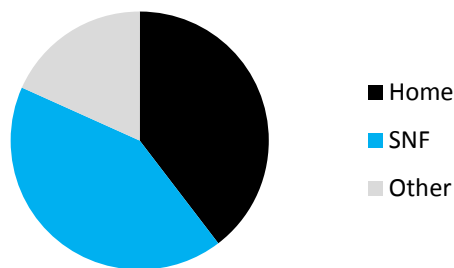
SPINAL CORD INJURY

Gaylord's Spinal Cord Injury includes comprehensive, integrated rehabilitation that is designed to maximize each patient's abilities. Our program draws on a complete team of specialists, as well as the latest technologies and research. Gaylord is a member of the New England Regional Spinal Cord Injury Center (NERSCIC), one of just 14 programs nationwide to be designated as a Spinal Cord Injury Model System by the U.S. National Institute on Disability and Rehabilitation Research (NIDRR). Spinal Cord Injury (SCI) treatment at Gaylord involves an integrated team approach from a wide range of disciplines: physicians, physiatrists, nurses, psychologists, social workers, nutritionists, pulmonary/respiratory specialists, as well as physical, occupational, speech and recreational therapists.

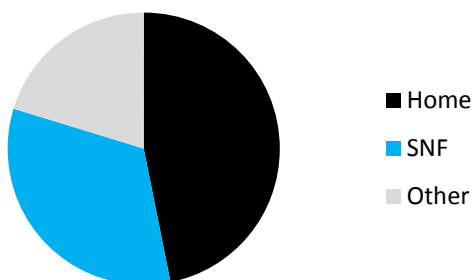
Gaylord Hospital, Brain Injury Discharge Disposition



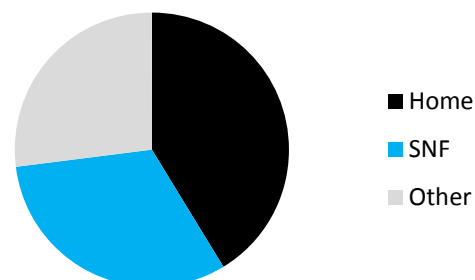
Gaylord Hospital, Stroke Disposition



Gaylord Hospital, Spinal Cord Injury



Gaylord Hospital, Pulmonary/Ventilator



COMMUNITY HEALTH NEEDS ASSESSMENT PROCESS OVERVIEW

Gaylord Specialty Healthcare began the community health needs assessment process by completing a review of its own patient data and state and local public health data. The following section presents key demographic and health status findings relating to the communities Gaylord serves.

DEMOGRAPHICS

OVERVIEW

Population stats of U.S. and CT (Source: Connecticut Census)

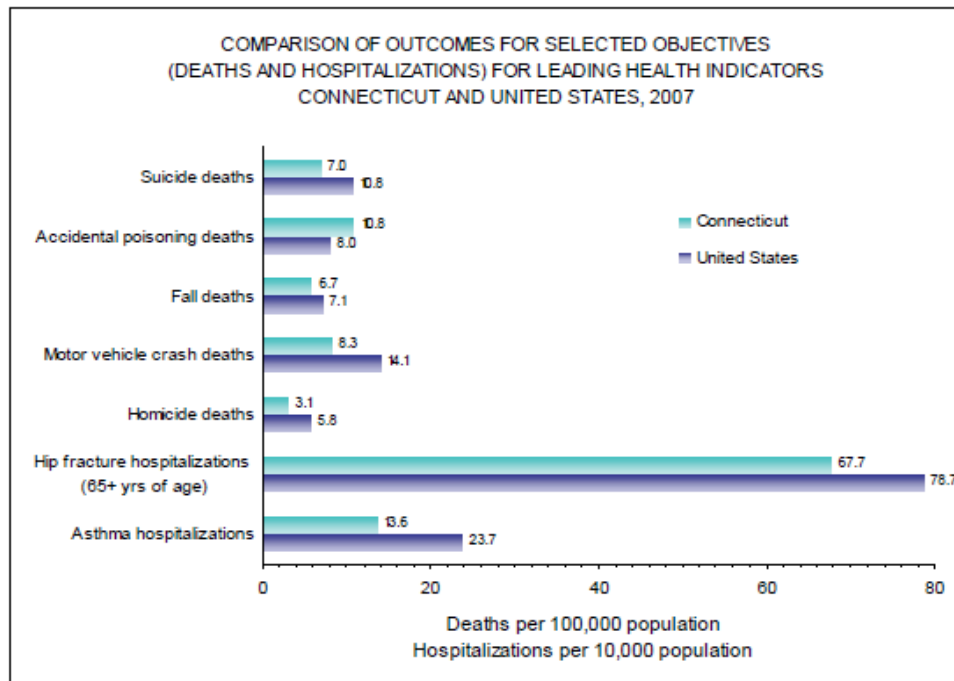
AGE COHORT	CONNECTICUT (2010)	UNITED STATES (2010)
0-19 years	26%	27%
20-44 years	32%	34%
45-64 years	28%	26%
65 and older	14%	13%

HEALTH STATUS

TOP 10 LEADING CAUSES OF DEATH IN CONNECTICUT VERSUS UNITED STATES

CAUSE OF DEATH	CONNECTICUT	UNITED STATES
Heart Disease	25.6%	25.4%
Cancer	23.8%	21.1%
Accidents	4.2%	4.8%
Stroke	5.2%	5.5%
Chronic Lower Respiratory Diseases	4.9%	5.3%
Diabetes	2.6%	3.1%
Septicemia	2.1%	1.4%
Influenza/Pneumonia	2.9%	2.2%
Nephritis and Kidney Disease	1.9%	1.9%

Source: Connecticut Department of Public Health



Sources: Connecticut Death Registry, Connecticut Hospital Discharge Database, National Vital Statistics, National Hospital Discharge Survey

SELECT CONNECTICUT HOSPITAL DISCHARGES BY AGE, 2010 (per 100,000)

Ages 15-24			#	
			Discharges	Rate
<i>Diseases of the respiratory system (460-519)</i>			739	154.5
Pneumonia & influenza (480-487)			155	32.4
Pneumonia (480-486)			152	31.8
Chronic obstructive pulmonary disease (490-496)			254	53.1
All bronchitis (466.0, 490-491)			14	2.9
Chronic bronchitis (491)			a	a
Emphysema (492)			a	a
Asthma (493)			241	50.4
<i>Injury & poisoning (800-999)^f</i>			2,111	441.5
Injuries (800-959)			1,381	288.8
Nonfatal head injury (800-801, 803-804, 850-854,			256	53.5
Non-fatal spinal injury (806, 952)			9	1.9
Age 25-44			#	
			Discharges	Rate
<i>Diseases of the respiratory system (460-519)</i>			2,427	268.4
Pneumonia & influenza (480-487)			664	73.4
Pneumonia (480-486)			652	72.1
Chronic obstructive pulmonary disease (490-496)			952	105.3
All bronchitis (466.0, 490-491)			147	16.3
Chronic bronchitis (491)			90	10.0
Emphysema (492)			10	1.1
Asthma (493)			821	90.8
<i>Injury & poisoning (800-999)^f</i>			4,925	544.6
Injuries (800-959)			2,280	252.1
Nonfatal head injury (800-801, 803-804, 850-854,			395	43.7
Non-fatal spinal injury (806, 952)			24	2.7
Age 45-64			#	
			Discharges	Rate
<i>Diseases of the respiratory system (460-519)</i>			8,100	793.4
Pneumonia & influenza (480-487)			2,207	216.2
Pneumonia (480-486)			2,182	213.7
Chronic obstructive pulmonary disease (490-496)			3,067	300.4
All bronchitis (466.0, 490-491)			1,764	172.8
Chronic bronchitis (491)			1,618	158.5
Emphysema (492)			22	2.2
Asthma (493)			1,350	132.2
<i>Injury & poisoning (800-999)^f</i>			8,838	865.7
Injuries (800-959)			3,254	318.7
Nonfatal head injury (800-801, 803-804, 850-854,			497	48.7
Non-fatal spinal injury (806, 952)			33	3.2

Age 65+	# Discharges	Rate
<i>Diseases of the respiratory system (460-519)</i>	18,873	3,714.0
Pneumonia & influenza (480-487)	6,663	1,311.2
Pneumonia (480-486)	6,625	1,303.7
Chronic obstructive pulmonary disease (490-496)	5,287	1,040.4
All bronchitis (466.0, 490-491)	4,464	878.5
Chronic bronchitis (491)	4,079	802.7
Emphysema (492)	19	3.7
Asthma (493)	967	190.3
<i>Injury & poisoning (800-999)^f</i>	13,572	2,670.8
Injuries (800-959)	8,293	1,632.0
Nonfatal head injury (800-801, 803-804, 850-854,	1,219	239.9
Non-fatal spinal injury (806, 952)	37	7.3

ALL AGES	# Discharges	Rate
<i>Diseases of the respiratory system (460-519)</i>	34,231	858.0
Pneumonia & influenza (480-487)	10,618	258.9
Pneumonia (480-486)	10,517	256.2
Chronic obstructive pulmonary disease (490-496)	10,747	273.3
All bronchitis (466.0, 490-491)	6,404	151.6
Chronic bronchitis (491)	5,791	137.0
Emphysema (492)	56	1.4
Asthma (493)	4,558	126.6
<i>Injury & poisoning (800-999)^f</i>	30,761	775.1
Injuries (800-959)	16,079	400.0
Nonfatal head injury (800-801, 803-804, 850-854,	2,607	66.9
Non-fatal spinal injury (806, 952)	106	2.7

Source: Connecticut Department of Public Health

PULMONARY

Environmental Quality

The environment and the quality of the air we breathe and the water we drink impact our health. The health indicators used in the Hartford Community Health Needs Assessment measured the relative environmental burden of Connecticut's municipalities by using specific Federal Toxic Release Inventory data, examining levels of locally generated air and water pollution, and industrial density. These two measures are negatively correlated with health outcomes. Poor environmental quality is responsible

for 25% of preventable illness. Chronic exposure to indoor and outdoor air pollution increases the risk of developing cardiovascular and respiratory diseases.

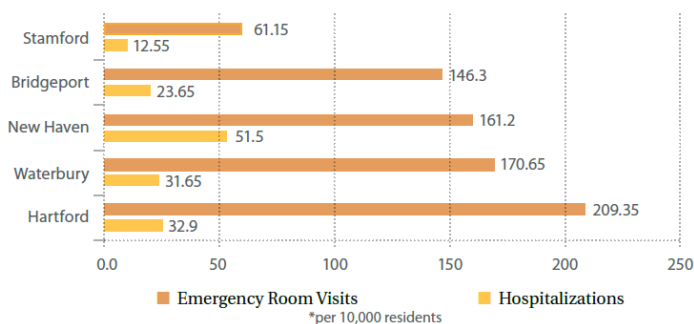
ASTHMA

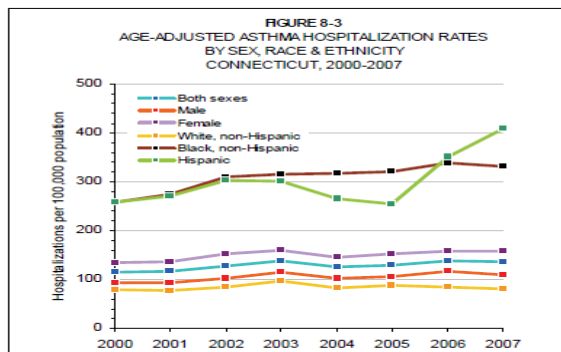
Asthma prevalence is greater in Connecticut than in the U.S. as a whole. In 2006, an estimated 248,000 adults and 6,000 children-about 10% of Connecticut's population- have asthma. Based on asthma prevalence, hospitalization, emergency department visits and deaths, the following subpopulations have been identified as a priority for asthma intervention in Connecticut: (1) children, (2) women, (3) older adults (age 65 and older).

Asthma Emergency Department Visits and Inpatient Hospitalizations

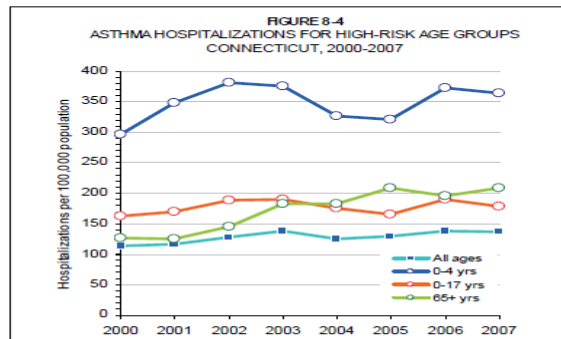
From 1996-2004 in Connecticut, the rate of hospital emergency department visits with a primary diagnosis of asthma was stable, however the rates of ED visits with a secondary diagnosis of asthma increased. Female adults and male children had substantially higher rates of ED visits compared to the opposite gender. Compared to 2000, in 2007, inpatient hospitalizations for asthma increased by 19% overall and by 3% for white non-Hispanics, 28 % for Black non-Hispanics, 58% for Hispanics, and 65% among persons age 65 years and older.

Figure 16. Asthma Hospitalizations and Emergency Room Visit Rates*
for All Residents by Connecticut City (2001-2007)





Children less than 18 years of age--especially those under 5 years--and adults 65 years of age and older also had higher hospitalization rates compared to the overall Connecticut population (Fig. 8-4).



Source: Connecticut Hospital Discharge and Billing Database

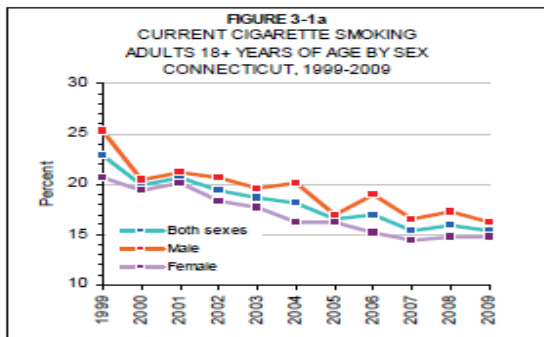
Tobacco Use

Secondhand smoke irritates the chronically inflamed bronchial passages of people with asthma, and can trigger asthma attacks and increase their severity.

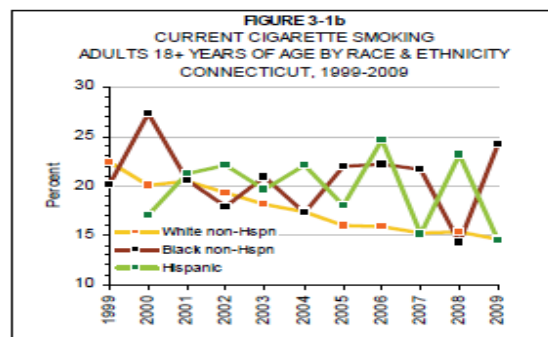
Tobacco use is the single most avoidable cause of death in the United States. It increases the risk of lung cancer and other cancers, heart disease, stroke and chronic lung disease. More than 4,700 Connecticut adults die each year as a consequence of their own smoking and 440 more die from exposure to second hand smoke. Tobacco use also has economic costs, with estimated expenditures attributable to the consequences of tobacco use in Connecticut totaling \$1.6 billion per year.

Source: Hartford Healthy Communities Report

Connecticut has one of the lowest rates of current smoking in the U.S. and ranked 8th lowest among states (15.4% compared to 17.9% nationally). Smoking among CT adults has declined by 40% over the past 20 years.



Source: Behavioral Risk Factor Surveillance System



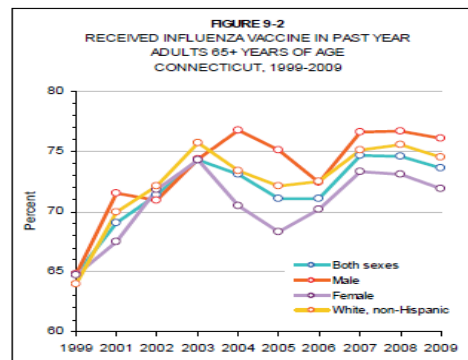
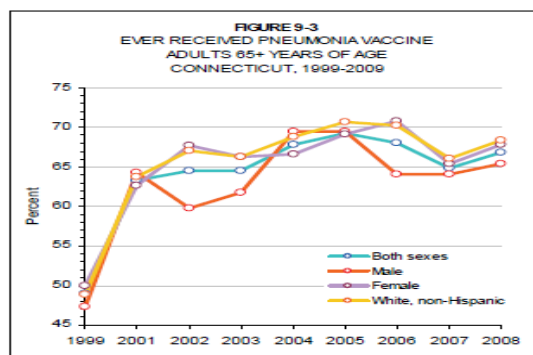
Source: Behavioral Risk Factor Surveillance System

Source: CDC Behavioral Risk Surveillance System

VACCINES

Annual vaccinations for seasonal influenza and a pneumococcal (pneumonia) vaccine every 10 years are recommended for people 65 years of age and older. “Pneumonia and influenza” is the fifth leading cause of death among Connecticut residents 75 to 84 years of age and men 85+ years of age.

From 1999 to 2009, the percentage of adults 65 years of age and older who received a yearly influenza vaccine increased significantly overall and for white non-Hispanics. During the same period, the proportion of older adults who received pneumococcal (pneumonia) vaccine improved significantly for all groups. (Source: Healthy Connecticut 2010)



Source: CDC Behavioral Risk Factor Surveillance System

TRAUMATIC BRAIN INJURY AND SPINAL CORD INJURY

Traumatic Brain Injury in the United States

An estimated 1.7 million people sustain a TBI annually (Source: CDC). Of them 52,000 die, 275,000 are hospitalized, and 1.365 million, nearly 80%, are treated and released from an emergency department. TBI is a contributing factor to a third (30.5%) of all injury-related deaths in the United States. About 75% of TBIs that occur each year are concussions or other forms of mild traumatic brain injury (MTBI). It is estimated that approximately 1.1-1.7% of the U.S. population lives with long term disabilities that result from injury to the brain.

TBI by Age

Children aged 0 to 4 years, older adolescents aged 15 to 19 years, and adults aged 65 years and older are most likely to sustain a TBI. Almost half a million (473,947) emergency department visits for TBI are made annually by children aged 0 to 14 years. Adults aged 75 years and older have the highest rates of TBI-related hospitalization and death.

TBI by External Cause

Falls are the leading cause of TBI. Rates are highest for children aged 0 to 4 years and for adults aged 75 years and older. Falls result in the greatest number of TBI-related emergency department visits (523,043) and hospitalizations (62,334). Motor vehicle–traffic injury is the leading cause of TBI-related death. Rates are highest for adults aged 20 to 24 years. Alcohol was involved in 41% of all fatal crashes and 7% of all crashes in 1996. More than 321,000 persons were injured in accidents where alcohol was present—an average of one person injured every 2 minutes.

Spinal Cord Injury in the United States

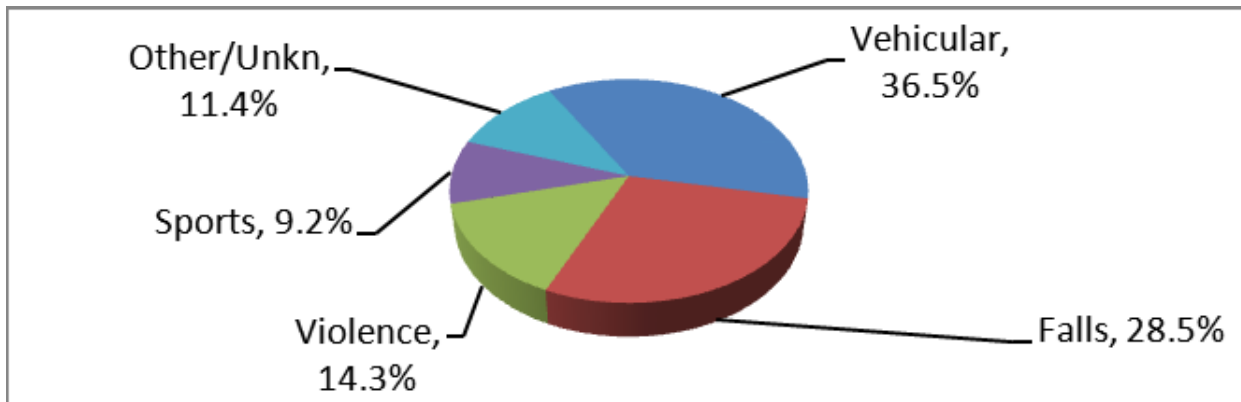
It is estimated that the annual incidence of spinal cord injury (SCI), not including those who die at the scene of the accident, is approximately 40 cases per million population in the U. S. or approximately 12,000 new cases each year. Since there have not been any incidence studies of SCI in the U.S. since the 1990's, it is not known if the incidence has changed in recent years.

The number of people in the United States who are alive in 2013 who have SCI has been estimated to be approximately 273,000 persons, with a range of 238,000 to 332,000 persons.

Since 2010, the average age at injury is 42.6 years. Overall, 80.7% of spinal cord injuries reported to the national database have occurred among males. Among those injured since 2010, 67.0% are Caucasian, 24% are African American, 0.8% are Native American, 2% are Asian and 8% are Hispanic.

Since 2010, motor vehicle crashes account for 36.5% of reported SCI cases. The next most common cause of SCI is falls, followed by acts of violence (primarily gunshot wounds). The proportion of injuries that are due to sports has decreased over time while the proportion of injuries due to falls has increased.

CAUSES OF SPINAL CORD INJURY, 2010



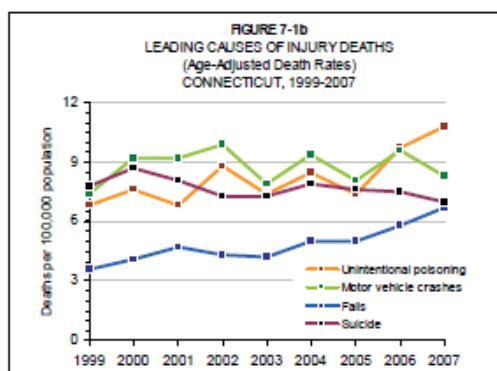
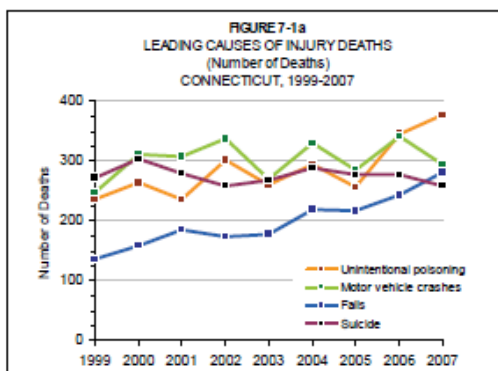
Source: CDC

Since 2010, the most frequent neurologic category at discharge of persons reported to the database is incomplete tetraplegia (40.6%), followed by incomplete paraplegia (18.7%), complete paraplegia (18.0%) and complete tetraplegia (11.6%). Less than 1% of persons experienced complete neurologic recovery by hospital discharge.

Connecticut

Injury is the leading cause of death for Connecticut residents between the ages of 1 and 44 years and the fourth leading cause of death and hospitalization for all ages combined. Each year in Connecticut, about 1,700 resident deaths and about 19,000 hospitalizations results from injuries. In 2007, the most common causes of unintentional injury death included motor vehicle accidents (22%) and falls (21%). (Poisoning accounted for 29%). More than half (58%) of unintentional injury hospitalizations were for falls, whereas about two-thirds (65%) of unintentional injury hospitalizations were for self-inflicted injuries.

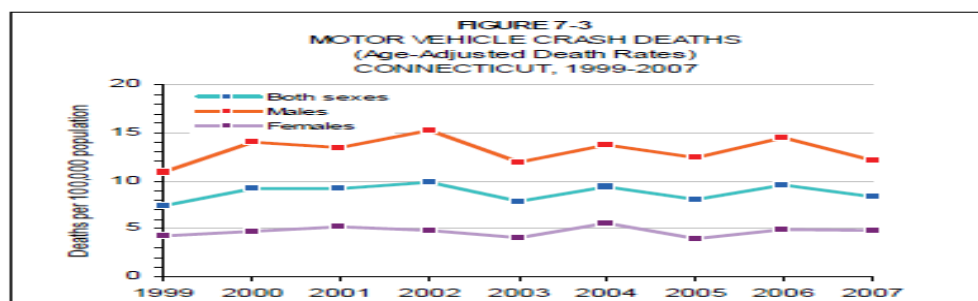
In the U.S. in 2002, \$73.4 billion were spent on medical care for injury-related conditions, including \$27.1 billion for inpatient hospitalizations. In Connecticut, in 2007, more than \$593 million were spent on inpatient hospitalizations and more than \$492 million were spent on hospital emergency department visits.



Source: Connecticut Department of Public Health Information System and Reporting Section, Connecticut Death Registries

Motor Vehicle Crashes

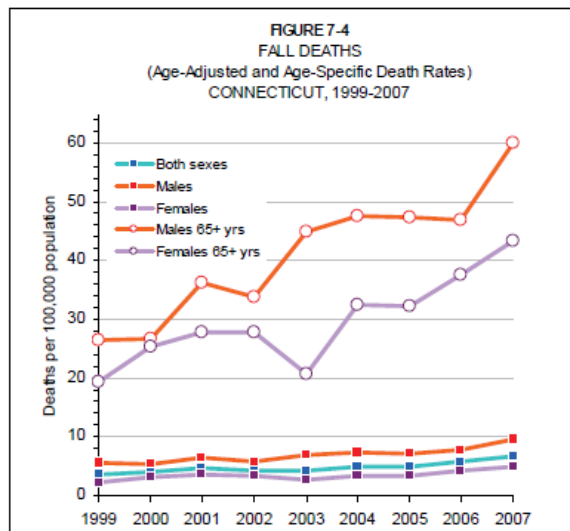
In 2006, Connecticut had the sixth lowest rate in the US for deaths related to motor vehicle crashes. From 1999 to 2007 in CT, the number of deaths increased by 19%, and the age-adjusted rate increased by 12% overall, with 11% among males and 12% among females. In 2007, males were 1.7 times more likely than females to die as a result of a motor vehicle crash and males accounted for 70% of deaths in the State. Teens and young adults age 15-24 accounted for 27% of the deaths in 2005-2007.



Source: Connecticut Death Registry

Falls

From 1999-2007, the number of deaths from falls more than doubled (107%) and the age-adjusted death rate increase by 6%, 73% among males and 118% among females. The age-specific death rate from falls also more than doubled for people 65 years of age and older. In 2007, persons age 65 and older were 7.5 times more likely than the overall Connecticut population to die from a fall.



Source: Connecticut Death Registry

Intent/Mechanism of Injury ^b	Both Sexes			Males			Females		
	Discharges ^a		Median Stay (Days)	Discharges ^a		Median Stay (Days)	Discharges ^a		Median Stay (Days)
	No. ^e	Rate ^{c,d}		No. ^e	Rate ^{c,d}		No. ^e	Rate ^{c,d}	
Near drowning & submersion (E830, E832, E910)	14	0.4	2.5	a	a	1.0	aa	aa	3.0
Fall (E880-E886, E888)	12,199	284.5	4.0	4,717	267.3	3.0	7,482	287.7	4.0
Fire (E890-E899, E924)	368	10.3	3.0	226	13.1	3.0	142	7.7	4.0
Firearm (E922)	61	1.8	3.0	55	3.3	3.0	6	0.4	5.0
Machinery (E919)	92	2.4	2.0	86	4.7	2.0	6	0.3	1.5
Motor vehicle traffic (E810-E819)	2,160	59.2	3.0	1,352	76.8	3.0	808	42.2	3.0
Non-motor-vehicle transport:									
Cyclist (E800-E807[.3], E820-E825[.6], E826-E827-E829[.1])	210	5.8	2.0	172	9.7	2.0	38	2.0	2.0
Pedestrian (E800-E807[.2], E820-E825 [.7], E826-E829 [.0])	43	1.2	3.0	25	1.5	2.0	18	0.9	3.5
Other Transport (E800-E807 [.0,.1,.8,.9], E820-E825 [.0-.5,.8,.9], E826.2-.8, E827-829 [.2-.9],E831,E833-E845)	298	8.2	3.0	186	10.8	2.5	112	5.6	3.0
Natural & environmental (E900-E909, E928.0-.2)	639	16.9	2.0	336	18.8	2.0	303	15.3	2.0
Overexertion (E927)	355	9.1	2.0	163	9.1	2.0	192	8.9	3.0
Poisoning (E850-E869)	1,435	37.9	2.0	757	42.2	2.0	678	34.2	2.0
Struck by, against (E916-E917)	552	15.3	2.0	379	22.1	2.0	173	8.4	3.0
Suffocation (E911-E913)	232	5.5	4.0	114	6.4	4.0	118	4.8	4.0

CONNECTICUT RESIDENT INJURY HOSPITALIZATION, 2010 NUMBER AND RATE OF DISCHARGES AND LENGTH OF STAY

Notes: CT population groups based on Estimates for July 2010 U.S. population; Backus, K. Mueller (2012) State-level Race estimates for CT, 2010 Connecticut DPH; Rates per 100,000 population, age adjusted to U.S. 2000 standard population.

STROKE

Stroke is the most common neurological emergency. It is the third leading cause of death in the United States and the fourth cause of death and leading cause of disability in Connecticut. The median age in Connecticut is above the national average and 13 percent of the State is over the age of 65. It is the fastest growing age cohort. Mortality data from the Connecticut Department of Public health shows 90% of all stroke deaths occur in persons age 65 and older.

The median age in Connecticut is above the national average, and 13% of the State is over age 65. Adults over age 65 represent the fastest growing segment of the State's population. Population projections estimate that in less than 20 years, more than 20% of Connecticut's residents will be over age 65, making its population the seventh oldest in the country.

Stroke hospitalizations and mortality rates vary significantly across racial, ethnic and gender lines. Nearly 90% of all stroke deaths in Connecticut occur among persons 65 and over. Overall, Connecticut's 3.5 million residents are predominately white (80%), and only 11% are Hispanic and 9% Black. Females comprise 51% of the population compared to males which comprise 49%. Women suffer more strokes than men and are more likely to die from their stroke event. Black women are the group disproportionally impacted by stroke in Connecticut. They are three times more likely than white women to die from stroke before age 75. According to the National Stroke Association, smoking may double the risk for stroke, women who smoke and who also take birth control pills are at even greater risk.

COMMUNITY NEEDS ASSESSMENT RESEARCH

Gaylord conducted several phases of primary research for assessing community need. The research used both electronic and written survey methodologies. Information gathered at this stage of the assessment process was intended to describe the health needs of the communities served by the Hospital.

Methodology for obtaining feedback

Feedback was gathered from patients and community stakeholders to better understand the strategies they currently use to maintain their health, their experiences with accessing health care services and barriers to care, and their perceptions of gaps in care and community resources.

- a. Surveys
 - i. Referral Source Survey
 - ii. Sports Association Patient Survey (written)
 - iii. Brain Injury Association of Connecticut (online and written surveys)
 - iv. Connecticut Stroke Association (online and written surveys)

SURVEY FINDINGS

A total of 105 completed surveys were received in response to the Gaylord Community Health Needs Assessment. Survey respondents were asked to identify any barriers that exist in the community and at Gaylord Hospital in accessing the care needed to maintain health; to identify areas of unmet need or services that are not currently available; how well Gaylord serves the needs of individuals with spinal cord injury, brain injury, and pulmonary diseases and to identify key improvements to provide better health care to the communities it serves.

Barriers in accessing care needed to maintain health included:

- Unaware of services available
- Availability/accessibility of physicians who understand my special needs
- Inadequate home care services for my special needs
- Lack of coordination among home care providers
- Lack of support/patient advocacy
- Services and resources not located locally and transportation
- Cost of Care/Insurance Coverage

Greatest Unmet needs included:

- Insurance cut backs
- Amputee support group and the sports association
- Follow up care & continued care after injury or illness. Lack of accessibility at PCP offices is a huge issue!
- Good reliable home care
- State-of-the-art diagnostic and testing equipment (e.g. Balance Master, other computerized balance testing)
- Gaylord is too far for those of us in Windsor Locks, CT. Even if I had transportation (which I do not), travel time alone is a hindrance.
- Places for TBI young people to socialize
- Trying to travel when I need a lift for bed and special mattress.
- Cost of transportation

- Hospitals do not have equipment, knowledge to care for handicapped, especially quadriplegic or para
- Accessible exam tables in doctor's offices for wheelchair users, in X-ray (ultrasound offices, etc.)
- General practitioners who understand SCI needs
- Pick up and drop off meds

What are the one or two key improvements you feel are needed for Gaylord Hospital to provide better healthcare for our communities?

- Stop insurance companies or Medicare from discharging patients early
- Better communication
- More education for both the patient & the family. Answering questions that aren't asked.
- Expand to include more of Connecticut
- Better communication with potential patients about how to get admitted at Gaylord Help hospitals advocate for patients to go to rehab instead of to nursing homes
- Better transportation
- Better home care and extension of insurance benefits to cover catastrophic illness and injury
- Hospital more local that provides the services Gaylord does
- More doctors and dentists should be willing to accept T19/Medicaid
- Better discharge plan for young TBI patients
- More knowledge and information regarding old brain injuries, expectations, what the future holds, etc.
- Access to more affordable care
- The only hospital in the area is Gaylord. They provide excellent care, physical and mental. Excellent staff. Quality of care 110%
- Better communication
- General practitioners who understand SCI needs
- Volunteers often needed help to file, reach high up stuff
- Satellite facilities for outpatient care
- Most assuredly funding is primary in order to maintain and improve the quality of care in Gaylord and perhaps even expanding to locate other facilities of this caliber
- Gaylord did a great job when I was there
- More clear information on criteria for spinal cord injury/disability patients
- Increase hemodialysis beds

COMMUNITY HEALTH NEEDS ASSESSMENT PRIORITIES

Methodology of how priorities were selected

The following process was used to focus the health priorities:

- a. Impact: Does this affect or exacerbate quality of life and health-related issues?
- b. Magnitude: How many people are affected? Does the problem lead to death, disability, impairment, quality of life?
- c. Feasibility: Can we make a difference? What is the ability of Gaylord Specialty Healthcare to impact the issue given available resources?

Gaylord also compared the prioritized needs with existing programs and resources. We reviewed health needs and gaps.

There are three areas of focus including:

- **Focus on a Continuum of Care:** services and support continuum of care (LTACH to community) that examines the needs of both patients and their families along this continuum.
- **Focus on Hospital Discharge:** Examine the needs of individuals with Traumatic Brain Injury, Spinal Cord Injury, Stroke, and Pulmonary Diseases after discharge
- **Focus on Providers, Other Professionals, and the Public:** Explore the training, information and resource needs of professional and community groups.

Access to Care along the Continuum

As a post-acute provider, Gaylord is particularly focused on the delivery of appropriate health care as people move through the continuum from acute care to LTACH to community support and services. For the population served by Gaylord, we focus on the need for services and support for patients and their families while hospitalized; the needs of people with Traumatic Brain Injury , Spinal Cord Injury , Stroke and Pulmonary Disease after discharge, and the resource and educational needs of providers and support services who serve these unique patients in the community.

IMPLEMENTATION STRATEGY

Gaylord Hospital's community health needs implementation strategy is focused on leveraging its programs, services, and resources to assist each person treated at the Hospital in achieving their highest level of functional independence and return to living in their home communities.

The Hospital's implementation strategy will focus primarily on addressing the health needs priorities of persons with spinal cord, brain injuries, stroke and pulmonary disease who reside within the State where Gaylord can realistically provide access to community health programs, services, and resources.

Data Sources Used in the Community Health Needs Assessment

In addition to quantitative and qualitative market research, secondary data was collected and summarized from local and state public health data as well as Gaylord Hospital data. Data used in this report were those released to the public. The presence or absence of data for any given year reflects the frequency of surveys or completeness of databases.

Community Health Needs Action Plan

Community Health Priority Need #1: Need for community-based primary care physicians willing to accept patients with disabilities requiring rehabilitation services.

Many persons who have brain and spinal injuries have difficulty finding primary care physicians who are willing to accept new and/or returning patients after they have sustained this type of injury. This is usually due to local primary care physicians' inexperience in treating patients with brain and spinal injuries, lack of knowledge of appropriate standards of care and treatment protocols for common secondary complications experienced by these patients, a lack of physical facilities to adequately examine patients, patient behavioral issues related to their injury, and concerns over adequate reimbursement for services provided.

- ***Increase awareness and understanding of medical issues of patients with brain and spinal injury***

A comprehensive Spinal Cord Injury Manual has been created and is available to all patients, their families and is available online at Gaylord's website. Gaylord conducts the Think First program which is available to community organizations.

- ***Provide access to standards of care and treatment protocols for common secondary medical complications resulting from brain and spinal cord injury.***

David Rosenblum, MD is chairing a group developed to create a standard of care tool for Spinal Cord Injury called the New England Spinal Cord Injury Toolkit in development as part of Gaylord's Model system work. Resource and topic sheets are completed.

- ***Provide CME opportunities for physicians and midlevel providers to educate about care options, examination techniques***

Gaylord's medical staff has given lectures at area hospitals, including summaries of recent research, and treatment protocols.

- ***Develop a physician resource package designed to assist primary care physicians***

New England Spinal Cord Injury Toolkit in development as part of Gaylord's Model system work. Resource and topic sheets are completed.

- ***Provide consultations whenever appropriate***

SCI and TBI consultations are conducted at YNHH by David Rosenblum, MD and at Gaylord Hospital/Wallingford campus by the department of physiatry medical staff.

Community Health Priority Need #2:

Working with area home care agencies, identify the need for specialized home health services to meet the unique needs of persons with brain and spinal cord injuries.

Many persons with brain and spinal cord injuries need specialized services once discharged, designed to address the unique cognitive, medical and rehabilitation needs associated with these types of injuries. For example, a person with a brain injury may need multiple short cognitive rehabilitation interventions each day lasting for relatively short periods of time in order to maximize improvement in functional independence measures. For individuals with spinal cord injuries, they may require education about the signs and symptoms of UTI, dyslexia, require periodic skin inspection, and DME education.

- ***Collaborate with existing home health organizations providing services to discuss the need for and potential for developing specialized home health education of best practices to meet the unique home health needs of persons with brain and spinal cord injuries.***

- ***Present education to existing home health organizations to increase the knowledge base of home healthcare staff and maximize the quality of care and continuity our patients receive within the healthcare system.***

Educational programming to increase the knowledge of home care staff about the unique needs of Gaylord's patient population takes place periodically. Meetings are held with individual home care providers as well as during routine onsite home health provider meetings.

- ***Meet with insurance case management professionals to discuss reimbursement for specialized home health services to address the unique needs of persons with brain and spinal cord injuries who may not be ready for intensive post- acute rehabilitation services.***

Gaylord's care management staff meet with home care provider agencies to increase the knowledge of home care staff about the unique needs of Gaylord's patient population and reimbursement requirements.

Community Health Priority Need #3: Need for community-based programs to provide care-giver education, training and support.

Gaylord's mission is to assist its patients achieve the highest level of functional independence and return to living in their home. While many patients are able to achieve functional independence, there is a substantial need for community-based programs to provide care-giver education, training and support.

- *Provide families with training and education to address ongoing and recurring needs of persons with pulmonary diseases through existing care-giver programs.*

Gaylord provides families with training and education in many settings, including from inpatient and outpatient. Families and patients receive educational materials and onsite education and counseling. Gaylord has designed a comprehensive Pulmonary Handbook that is available to all patients and families and is accessible online through the Gaylord website.

- *Ventilator education and training for ventilator dependent patients, who are going home on a ventilator, and family members and care givers.*

Ventilator education is a joint process between the home ventilator provider and the Gaylord respiratory therapy staff. Patients and their families receive a thorough education on the equipment and the family/care giver spends 24 hours in hospital taking care of their loved one on ventilator to show they are comfortable and have a true understanding of care involved.

- *Education and training on tracheostomy care and suctioning to patients and care givers.*

Education and training starts upon admission by respiratory therapists and RNs and all training is documented in the patient's record.

- *Assessment of patients while inpatient to determine benefit for out-patient pulmonary rehab after discharge, including out-patient pulmonary consult prior to discharge.*

Patient assessment begin immediately during the patient's stay at Gaylord. Once the patient is deemed ready for discharge, the hospitalist or pulmonologist will send a recommendation for pulmonary rehab when appropriate. All appropriate patients will receive a Rehab visit from the Pulmonary Rehabilitation staff while still in the Hospital. The program goals and process is explained to the patient at that time.

- *Facilitate opportunities for networking, communication, and peer support among people with brain and spinal cord injuries and pulmonary diseases, family members and care-givers.*

Gaylord routinely brings spinal cord injured patients and their families together so that patients who have been weaned can provide support and encouragement to those trying to wean from the ventilator.

- *Ventilator support group led by pulmonologists and clinical psychology*

Ventilator Support Group meets each Thursday when we and is conducted in a group setting or individually.

Community Health Priority Need #4: Need for post-discharge support systems for individuals with brain and spinal cord injuries and pulmonary diseases following hospitalization. Through its comprehensive discharge process, Gaylord Hospital provides post-discharge client and family planning guidance and education about resources and options available to help individuals with a catastrophic injury or illness better address the psychosocial, educational, career and medical issues that may arise during the first year after their injury or illness.

- *Ensure that preventable complications and secondary prevention issues are addressed, including all modifiable risk factors.*

This is part of each patient's discharge plan. Patients and families are educated on preventable complications and risk factors.

- *Ensure individuals with pulmonary disease receive ongoing support and education through monthly Better Breathers Club.*

Better Breathers Club including family education and support is conducted monthly at Gaylord Hospital.

INVENTORY OF SERVICES

Pulmonary Rehabilitation

Pulmonary Rehabilitation is designed to help individuals with pulmonary problems develop new strategies for monitoring and controlling their symptoms, so they can lead a more active life. Under the supervision of our pulmonary specialists, individuals develop the knowledge and skills needed to increase their strength and endurance and decrease their need for hospitalization and episodes of shortness of breath.

Pulmonary Rehabilitation is a supervised program of exercise and education. The program is open to individuals diagnosed with diseases such as emphysema, chronic asthma, chronic bronchitis, pre-lung transplant, pulmonary fibrosis, cystic fibrosis and other pulmonary diseases.

Ventilator Weaning

Gaylord's Ventilator Weaning Program is designed to help patients who have been dependent on a ventilator learn how to breathe on their own again. The program uses the latest research and technologies, together with a multi-disciplinary team approach, to help patients successfully transition from being on a ventilator to breathing independence. Each patient receives a thorough assessment before he or she arrives at Gaylord, so that any special needs can be determined early in the process. Upon arrival at our facility, the entire care team sees the patient and develops an individualized plan of care.

Some patients – those with certain spinal cord injuries or progressive neuromuscular disease, for example – may be unable to be weaned from the ventilator. When that is the case, Gaylord works with the family to determine the best course of care after discharge from Gaylord. If the patient will be cared for at home, Gaylord will train the patient and his or her family in “trach” care, suctioning, home ventilator operation and emergency care, and also helps families select a home health company, check the home environment, and assist in making sure the ventilator is properly placed for patient comfort and safety. Gaylord also contacts local EMS and utility providers to alert them to the presence of a home ventilator.

Traurig House/Transitional Care: The Louis D. Traurig House is the only transitional living center for people with acquired brain injury in Connecticut. Located in Wallingford on the campus of Gaylord Hospital, Traurig House is an 8-bed, co-ed facility. Typically, residents come to Traurig House after they have completed their inpatient rehabilitation but are not quite ready to go home because of language, physical or cognitive problems. Traurig House provides the necessary transition to ease the patient from hospital to home. Residents participate in the day program in the outpatient therapy department.

Aphasia/Cognitive Day Treatment: The Day Treatment Program offers an intensive outpatient program for people with cognitive deficits following an acquired brain injury such as traumatic brain injury, stroke, or other neurologic disorder. Cognitive impairments result in difficulties with orientation, attention, memory, reasoning, problem solving, planning and organization. These difficulties often affect auditory comprehension, verbal expression, reading comprehension, writing and social communication skills.

Wheel Chair Assessment: Wheelchair Assessment Services can improve mobility through the proper recommendation of customized wheelchairs. Gaylord Specialty Healthcare is the only provider in Connecticut to use the Smart Wheel System. Using ultra lightweight manual wheelchairs, SmartWheel technology provides information on push force, push frequency, push length, push smoothness, and speed. With this information, modifications and adjustments are made to the chair to reduce repetitive stress and optimize push style, reducing force and frequency of pushes to preserve optimal shoulder integrity.

Assistive Device Assessment: As patients with spinal cord injuries and other diagnoses continue their journey to independence, Gaylord offers a full complement of assistive technologies that enable greater independence. Assistive technology is available for phone access, computer access, and various environmental controls, and these technologies are used through computer, switch or voice activation.

Hearing Center: Gaylord's Hearing Center provides Hearing evaluations, the latest in hearing aid technology and free counseling for patients and families. Coming to terms with hearing loss can be a sensitive issue for most people—no matter what their age. Gaylord's audiologists understand and treat each client with respect while trying to find the best hearing solution for each person.

Center for Concussion Care: Gaylord's Center for Concussion Care is a comprehensive program for teens and adults. Each plan of care is customized using resources on the Wallingford and/or North Haven campuses. Gaylord's interdisciplinary team draws upon a long and successful history of treating brain injuries. The collaborative center consists of physiatrists, neuropsychologists, sports medicine physical therapists, vestibular/balance physical therapists and certified athletic trainers. In some cases, specialty treatment options may include audiologists, occupational or speech therapists, all with advanced training in neurological disorders to maximize recovery.

Aquatic Aquacize Program: Gaylord's 75-by-25 foot therapeutic pool on the hospital's Wallingford campus is specially designed for people with disabilities. Aquatic therapy - therapeutic exercise in water - provides a soothing, efficient method of exercise for achieving movement. The water, which is maintained at a temperature between 88 and 90 degrees in Gaylord's therapeutic pool, provides a cushioning effect that protects the body from any pounding, jarring movements.

Think First Program: ThinkFirst is sponsored by Gaylord Specialty Healthcare and the National Spinal Cord Injury Association, Connecticut Chapter. ThinkFirst is an injury prevention program that is offered free to schools (grades K-12) and community groups such as clubs, scout troops, and health fairs, etc. The program is taught by a physical therapist from Gaylord Hospital and addresses the ways to prevent injury when participating in age-specific activities, such as bicycle safety for elementary students and drinking and driving for high school students. An important focus is helping students understand the impact of brain and spinal cord injuries and how they can be prevented.

Sports Association: The Sports Association of Gaylord Hospital supports disabled sports teams and clubs throughout Connecticut. The Association encourages people with physical disabilities to participate in sports and experience new sport activities and is a member of the Disabled Member of Disabled Sports, USA, Paralympic Chapter as designated by the USOC. Some of our teams include the Connecticut Jammers Quad Rugby and Connecticut Hornets Wheelchair Tennis.

SUPPORT GROUPS

1. Amyotrophic lateral sclerosis (ALS) Support Group
2. Amputee Success Group
3. Better Breathers
4. Family & Caregiver Support Group of Acquired Brain Injury Patients
5. Community Stroke Group
6. National Spinal Cord Injury Association-CT Chapter Board Meeting
7. Spinal Cord Injury Support Group

APPENDIX

**DRG Relative Weights for Top 50 LTCH DRGs
in Acute Hospitals and LTCHs FY 2007**

DRG	DRG Label	FY2007 Relative Weight		FY2007 Geometric Mean LOS	
		Acute	LTCH	Acute	LTCH
475	Respiratory System Diagnosis With Ventilator Support	3.83	# N/A	7.9	# N/A
249	Aftercare, Musculoskeletal System & Connective Tissue	0.82	0.64	2.8	24.0
271	Skin Ulcers	1.24	0.83	5.6	26.9
12	Degenerative Nervous System Disorders	1.01	0.68	4.4	25.1
87	Pulmonary Edema & Respiratory Failure	1.53	1.03	4.9	24.8
462	Rehabilitation	1.58	0.58	8.4	22.1
88	Chronic Obstructive Pulmonary Disease	0.96	0.64	4.0	19.3
89	Simple Pneumonia & Pleurisy Age >17 W Cc	1.13	0.68	4.6	20.6
79	Respiratory Infections & Inflammations Age >17 W Cc	1.73	0.82	6.7	22.8
466	Aftercare W/O History Of Malignancy As Secondary Diagnosis	0.78	0.67	2.7	21.7
416	Septicemia Age >17	1.83	# N/A	5.7	# N/A
263	Skin Graft &/Or Debrid For Skn Ulcer Or Cellulitis W Cc	2.27	1.27	8.3	38.0
127	Heart Failure & Shock	1.06	0.68	4.1	21.2
316	Renal Failure	1.35	0.83	4.8	22.9
430	Psychoses	1.23	0.40	5.9	23.1
418	Postoperative & Post Traumatic Infections	1.19	0.80	4.7	24.1
277	Cellulitis Age > 17 W Cc	1.00	0.61	4.5	20.9
238	Osteomyelitis	1.55	0.86	6.5	28.4
76	Other Resp System O.R. Procedures W Cc	2.74	2.40	8.2	42.5
144	Other Circulatory System Diagnosis W Cc	1.38	0.77	4.2	22.1

DRG	DRG Label	FY2007 Relative Weight		FY2007 Geometric Mean LOS	
		Acute	LTCH	Acute	LTCH
452	Complications Of Treatment W Cc	1.14	0.93	3.5	25.7
320	Kidney & Urinary Tract Infections Age >17 W Cc	0.95	0.62	4.1	21.7
188	Other Digestive System Diagnoses Age >17 W Cc	1.18	0.96	4.1	24.4
296	Nutritional & Misc Metabolic Disorders Age >17 W Cc	0.90	0.71	3.6	22.3
415	O.R. Procedure For Infectious & Parasitic Diseases	4.14	# N/A	11.0	# N/A
468	Extensive O.R. Procedure Unrelated To Principal Diagnosis	3.81	2.15	9.6	40.5
182	Esophagitis, Gastroent & Misc Digest Disorders Age > 17 W Cc	0.90	0.79	3.4	21.8
217	Wnd Debrid & Skn Graft Except Hand, For Musculoskelet & Conn Tiss Dis	3.14	1.24	9.0	36.5
465	Aftercare W History Of Malignancy As Secondary Diagnosis	0.62	0.69	2.5	21.2
294	Diabetes Age >35	0.86	0.70	3.3	23.9
463	Signs & Symptoms W Cc	0.77	0.61	3.1	22.9
461	O.R. Proc W Diagnoses Of Other Contact W Health Services	1.54	1.15	3.3	32.7
483	Trach W Mech Vent 96+ HRS	0.00	# N/A	0.0	# N/A
82	Respiratory Neoplasms	1.43	0.82	5.1	21.4
126	Acute & Subacute Endocarditis	2.55	0.89	9.0	26.3
34	Other Disorders Of Nervous System W Cc	1.03	0.70	3.6	23.4
243	Medical Back Problems	0.87	0.60	3.6	22.3
120	Other Circulatory System O.R. Procedures Other Musculoskeletal System & Connective Tissue	2.31	1.09	6.0	31.4
256	Diagnoses	0.96	0.71	3.9	23.6
269	Other Skin, Subcut Tiss & Breast Proc W Cc	1.88	1.21	6.0	34.7