

Springfield Hospital's 2004 Act 53 Community Needs Assessment



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EXECUTIVE SUMMARY

ASSESSMENT SCHEDULE

The Springfield Hospital Community Health Needs Assessment will be conducted within the following time frames.

- | | |
|-----------------------------|-----------------|
| ▪ 2004 Assessment Completed | January 1, 2005 |
| ▪ Assessment Updated | January 1, 2007 |
| ▪ Next Assessment Completed | January 1, 2009 |

PRIORITIES

Findings were synthesized from the qualitative and quantitative data sources and presented at a meeting of the Community Health Needs Assessment Steering Committee. The Committee was comprised of twenty-five (25) community members representing a broad cross section of the community, including agencies, schools, business, government, clergy, health providers, etc. Attendees participated in a group process to prioritize the community's health needs. Below are the top community Health Improvement Priorities and Health Resource Priorities identified by the Community Health Needs Assessment Steering Committee. For a complete listing of priorities from which these priorities below were selected, see **Appendix A**.

Health Improvement Priorities

- Decrease obesity
- Decrease substance abuse rates (adult binge drinking and youth substance abuse)
- Decrease mental illness (depression) among adults and youth

Health Resource Priorities

- Continue the outpatient chronic disease care initiative in physician practices
- Provide patient advocacy, case management and coordination services (to include Medicaid and Medicare patients)
- Increase efforts of Springfield Hospital and area businesses to promote wellness
- Increase resources for child psychiatry and treatment services, including medication management
- Improve integration of primary care and mental health
- Provide End-of-Life care in the Hospital
- Modernize the Day Surgery and Endoscopy Units
- Create additional ambulatory space in radiology and the ED (privacy and observation)

METHODOLOGY

PURPOSE

The purpose of the Springfield Hospital Community Health Needs Assessment will be to:

- Identify and prioritize the healthcare needs of the service area and for patient populations served, as well as the resources required to meet those needs.
- Work together collaboratively with other key community stakeholders to establish community priorities.
- Potentially identify other community needs that may be best met by other organizations.
- Comply with Act 53, Sec. 4, 18 VSA, 9405a, as passed by the Vermont State Legislature.

ACKNOWLEDGEMENTS

Springfield Hospital created a Community Health Needs Assessment Steering Committee of senior staff to implement a Community Health Needs Assessment, as prescribed by Act 53. The Assessment was conducted in conjunction with many area consumers and providers, including:

- Health care professionals
- Representatives of community organizations and agencies
- Government officials,
- Community members
- Business leaders.

Acknowledgement of Springfield Hospital Administration, Hospital Board Members, the Hospital Joint Leadership Committee, Springfield Hospital Medical Staff, Community Health Needs Assessment Steering Committee and community members who participated in the Community Needs Assessment is provided in **Appendix A**. In addition, participants in the consumer Focus Groups provided input into the Assessment; however, they are not named in the Acknowledgements section, since their comments were made anonymously.

SERVICE AREA

The service area studied for the Springfield Hospital Community Health Needs Assessment was defined by the Vermont Department of Health, in consultation with the Vermont Department of Banking, Insurance, Securities, and Healthcare Administration (see map on cover page). Both qualitative and quantitative data for this Assessment were derived for this service area. Other data sources, however, may have utilized different service area.

QUANTITATIVE DATA SOURCES

Data provided by the Vermont Department of Health, comprised the quantitative data sources for the Springfield Hospital Community Needs Assessment. This data was reviewed and included in each appropriate section of this report, as prescribed. Tables provided by the Vermont Department of Health are included in **Appendix B**.

Disclaimer: The Vermont Department of Health data tables were subject to numerous changes throughout the process of preparing this report, as well as after the report was drafted and disseminated to the public. All attempts were made to include the most recently updated, corrected data tables in this report. However, since it was required that data be analyzed at a specific point and time, in order to meet the required deadlines for public input and submission to the state, certain data tables corrected after the printing of this report and, therefore, their analyses may not be included in this report.

OTHER DATA SOURCES

In addition, other data sources were utilized for the Springfield Hospital Community Health Needs Assessment, including:

- The *Springfield Hospital Critical Access Hospital Conversion Feasibility Analysis*, conducted in June 2004, which included a Community Needs Assessment.
- A *Market Assessment Study* conducted by Helms & Company in March 2003, for the Dartmouth- Hitchcock Alliance, which included an analysis of the supply and unmet need for primary care and specialty care physicians.
- A *Springfield Hospital Environmental Scan, 2003 – 2004*, which included demographic, workforce data and financial, technology and facility issues faced by Springfield Hospital.
- *A Meeting with the Hospital Joint Leadership Committee (Medical Staff, Board, and Administration)*

DESCRIPTION OF METHODS USED TO OBTAIN PUBLIC INPUT

Springfield Hospital utilized a variety of methodologies to obtain public input from a diverse population of individuals and groups throughout the community, including:

- 4 Community Focus Groups
- 5 Physician Focus Groups
- Community Key Leader Telephone and Physician Mail Survey
- A Legislative and Hospital Board Needs Assessment meeting facilitated by Glenn Corder, Springfield Hospital CEO

- Community Health Needs Assessment Steering Committee Prioritizing Meeting
- Public Comment Meeting

4 Community Focus Groups

In 2004, Springfield Hospital engaged Helms & Company to conduct a qualitative research project of four (4) Focus Groups. Using a Recruiting Script developed by Helms & Company and approved by the Hospital, fourteen (14) consumers were randomly recruited for each group (total of 56) from a purchased sample list. Adult healthcare decision makers from 18 to 70 years of age who live in the Hospital's service area (as defined by the Hospital using zip codes supplied by the Hospital) were selected. Quotas for respondent selection included a 50/50 split of consumers by insurance type (50% Commercial including CIGNA and BCBS and 50% Medicare/Medicaid) and a 50/50 split of Springfield Hospital users and non-users.

Focus Groups were convened in Cavendish/Ludlow, Bellows Falls and Springfield, Vermont and Charlestown, New Hampshire on February 10 and 11, during lunch (12 – 2), evening (5:30 – 7:30), breakfast (8 – 10), and lunch (12 – 2) sessions. A total of forty-one (41) consumers participated in the four (4) groups (9 in Ludlow, 12 in Springfield, 7 in Charlestown, and 13 in Bellows Falls). Using a Discussion Guide developed by Helms & Company and approved by the Hospital, Helms & Company moderated the Focus Groups.

5 Physician Focus Groups

Five focus group meetings were scheduled on September 8 at 7:00 a.m., 12:00 noon, and 6:00 p.m. and on September 9 at 7:00 a.m. and 12:00 noon for approximately one hour each. These meetings were facilitated by Jeffrey G. White, FACHE, Senior Consultant and Principal at Helms & Company, of Concord, NH, who is known to many of the members of the Active Medical Staff based upon previous work he has done at the hospital. In July a letter from the Hospital Board Chairman, Medical Staff President, and Hospital CEO was sent to all members of the Active Medical Staff inviting them to participate and sign up for a convenient session. Of the 46 members of the Active Medical Staff, 33 signed up and 26 attended one of the five sessions. The participants were broadly representative of the Active Staff, including physicians employed by the hospital and in private practice, primary care physicians, specialists, and hospital-based specialists (radiology, anesthesia, and emergency department). See **Appendix A**.

Community Key Leader and Physician Telephone Survey

During the month of October 2004, Springfield Hospital conducted a Community Health Needs Assessment Key Leader telephone survey and physician mail survey among 30 Key Leaders and 15 physicians. For a list of questions and graphic display of priority ratings of the need to expand and/or improve area health services, see **Appendix A**.

Legislative and Hospital Board Needs Assessment Meeting

Springfield Hospital convened a meeting of its Board members, administration, and Legislative leaders to discuss community health needs. Prior to the meeting, each invitee received a letter and a list of questions that would be addressed in the meeting. (See **Appendix A**) A total of 16

Board members and 17 Legislators were invited, with 8 Board members and 12 Legislators attending the meeting. Participants enjoyed a breakfast at the Hartness House on October 4, 2004, where they shared their views and opinions of the area's health needs, from their perspectives. Glenn Cordner, CEO and Kim Nichols, Public Relations Director of Springfield Hospital facilitated the meeting. Deborah White of Helms & Company also attended the meeting.

Prioritizing Meeting

Findings were synthesized from the qualitative and quantitative data sources and presented at a meeting of the Community Health Needs Assessment Steering Committee. The Committee was comprised of twenty-five (25) community members representing a broad cross section of the community, including agencies, schools, business, government, clergy, healthcare providers, etc. Attendees participated in a group process to prioritize the community's health needs. An Executive Summary was then compiled, based on the Prioritizing Meeting to include the top Priorities for the Springfield Hospital service area.

Public Comment Meeting

A Public Comment Meeting was convened on December 8th at Springfield Hospital in Springfield. A total of six (6) members of the community attended the meeting. Subsequently, a final report, including input from the Public Comment Meeting, was prepared for final submission to the State. A copy of the presentation made at the Public Comment Meeting is located in **Appendix A**.

PLAN TO UPDATE THE COMMUNITY NEEDS ASSESSMENT BIENNIALLY

Springfield Hospital plans to update the Community Health Needs Assessment biennially, to continue to project a four-year vision through:

- An annual meeting
- Participation in other local organizations to update the Community Health Needs Assessment
- Continued posting of the Community Health Needs Assessment Report on the Hospital's Website

The biennial update will include a report about what has happened since the last report; who has received the Community Health Needs Assessment Reports / Data; a description of the annual meeting with the community; any changes in the community stakeholders; a description of any changes that may have occurred in the community and a description of preliminary plans for the next comprehensive assessment.

2004 ANNUAL PUBLIC MEETING

Meeting Place and Date

As required by Act 53, a public meeting was held for the purpose of gathering feedback on the draft Community Health Needs Assessment report. The 2004 Annual Public Meeting for the Springfield Hospital Community Health Needs Assessment was convened on December 8, 2004 in the Springfield Hospital Library.

Who Was Invited and How the Meeting Was Publicized

Invitations were sent to 27,000 households in the Hospital service area through the Hospital newsletter. As well, a notice of the meeting was posted on the Hospital Website and two (2) advertisements promoting the meeting were placed in the local newspapers. Also, all members of the Hospital Medical Staff and the Community Health Needs Assessment Steering Committee were invited to attend the meeting.

Meeting Summary

A total of six (6) community members attended the Annual Public Meeting to review and comment on the Springfield Hospital Community Health Needs Assessment. Glenn Cordner, CEO introduced the session and gave an overview of the Community Health Needs Assessment process and findings. Comments made by community members attending the Annual Public Meeting are provided below:

Mental Health and Substance Abuse

- HCR has received a grant, based on the chronic disease model, to integrate mental health and substance abuse into primary care practices. The Robert Wood Johnson's Depression Primary Care grant will fund a Community Mental Health Center case manager collocated in primary care practices. Patients with depression will be referred to the case manager. HCR is working with Ridgewood partners and Dr. Hughes to implement this program. Part of the grant will fund a study to analyze these patients' use of the Emergency Department, outpatient care and inpatient care, during their treatment.

Maternal and Child Health

- There needs to be an effort to increase the proportion of women receiving first trimester prenatal care, particularly among WIC recipients.

Lifestyles and Behavior

- There is great collaboration in the community working toward improving healthy lifestyles. There needs to be an increase in physical activity and exercise among area residents, through the following initiatives:
 - Work with Parks and Recreation

- The “Springfield in Motion” grant with school age kids
- Walking Groups
- Nutrition Groups
- Physical Activity and Nutrition (PAN) is applying for a grant to address nutrition education and physical activity

Workforce

- Medquest, through the Southern Vermont AHEC has a successful program that encourages high school juniors and seniors to move into the health professions.
- Funded through the AHEC, there is a loan repayment program to help nurses replay their college loans, but there is a limited pot of money.
- The Hospital has a loan repayment program, but there are just not enough applicants to fill nursing positions.

Health Services

- Springfield Hospital has been responsive to the community in developing adult day care, which was identified as a community need. The Hospital now operates the adult day care center, which is near capacity.

Mechanism for Receiving Ongoing Public Contact

Ongoing public comment on the community health needs in the Springfield Hospital service area will be solicited through several mechanisms:

- The Community Health Needs Assessment will be posted on the Hospital’s Website at www.springfieldhospital.org.
- Full reports of the Community Health Needs Assessment will be available at the Springfield Hospital Library and the Springfield Public Library. The public may also obtain copies of the Assessment report by calling Kim Nichols, Director of Marketing and Public Relations for Springfield Hospital or through e-mail at KNichols@SpringfieldHospital.org.
- Meetings of the Community Health Needs Steering Assessment Committee will be held as needed to review public comments received.
- An annual public meeting will be held on the health needs of the Springfield area community during the November - December timeframe each year.

Incorporating the Needs Assessment into the Hospital’s Strategic Planning Process

The Hospital and its affiliates will utilize the outcomes of the Community Health Needs Assessment report and priorities for guiding the strategic planning process. Additionally,

community health and human service organizations will also have access to this information to help plan in meeting the community's needs.

DEMOGRAPHICS

INFORMATION FROM THE DEPARTMENT OF HEALTH

In 2003, there were an estimated 28,913 people living in the Springfield Hospital service area, or 4.7% of the total state population. Compared to Vermont, the Springfield service area population is much older, lower income, slightly less ethnically diverse and has grown at a slower rate:

- **Older** – 17.8% are 65 years and older and 24% are children 0-19 years vs. 13.2% and 26.5% for Vermont, respectively (**See Table 1**)
- **Lower Income** – 29% live below 200% of poverty vs. 27% for Vermont and 8% live below 100% of poverty vs. 9% for Vermont (**See Table 2**)
- **Less Ethnically Diverse** – 98% are White vs. 96.8% in Vermont. Among minority populations living in the Springfield service area, 0.8% are Hispanic; 0.6% are Asian; 0.2% are Black or African American; 0.2% are American Indian and Alaska Native and 1.1% are of Other or Multiple Races. (**See Table 3**)
- **Slower Population Growth** – The Springfield service area population grew an estimated 0.5% in 3 years, a slower rate of growth than Vermont at 1.7%. (**See Tables 1 and 3**)
- **Other population subgroups** studied in this report, as a percentage of the Springfield service area's total population include: 0-17 year olds (21.6%); 18-44 year olds (31.5%); and 45-64 year olds (29.2%). (**See Table 1**)

OTHER DATA SOURCES

Springfield Hospital Critical Access Hospital Conversion Analysis

- **Age of Population** – The service area percentage of adolescent residents is very similar to Vermont, while the percentages of pediatric and adult residents are lower than the state. Perhaps the only striking comparison between the service area age distribution and that of Vermont is the percentage of elderly residents. This population subset, which consumes a disproportionate share of health care resources, represents 17.1% of the service area population, as apposed to 12.7% for Vermont.
- **Unemployment and income** – As of January 2004, at 4.8%, the (Hospital defined) service area unemployment rate was equal to that of Vermont. However, service area residents are “less gainfully employed,” as evidenced by the median income level comparisons:
 - Service Area Median Household Income \$37,503

- Vermont Median Household Income \$40,856
- **Medicaid** – In 2002, there were 6,191 Medicaid recipients in the (Hospital defined) service area, representing 18.0% of the service area population, which is higher than for Vermont (15.9%).
- **Medicare** – In 2000, using over age 65 as a proxy for Medicare eligibility, there were 5,878 Medicare recipients in the (Hospital defined) service area, representing 17.1% of the service area population, which is higher than Vermont (12.7%).
- **Ethnicity** – Similar to Vermont, the service area population is extremely homogeneous in terms of ethnicity. Differences do exist in some of the non-Caucasian categories; however, given the number of residents in these categories, the differences are inconsequential.
- **Age and Ethnic Distribution** - With the exception of having a much higher percentage of elderly residents, the Springfield Hospital service area closely resembles that of the States of Vermont and New Hampshire. Regarding economics, the service area residents are poorer, as measured by the percentage of low-income residents, median household income and per capita income than the average Vermont and New Hampshire resident. As it pertains to insurance status, comparatively more service area residents are covered by Medicaid (as a result of income levels) and are covered by Medicare (as a result of the high percentage of elderly). Due to more residents being covered by these publicly sponsored insurance programs, a lesser percentage of service area residents are uninsured.
- **Strategic Planning Implications** - The above demographic factors have historically been dealt with by Springfield Hospital in meeting community needs and continue to be considered as part of ongoing planning initiatives.

Springfield Hospital Environmental Scan 2003 – 2004

Based on the projected growth and median income data abstracted from Inforum and Claritas, the following aggregated census data highlights the following:

- **Age of Population** - By 2030, the number of Vermonters over the age of 65 will double. This will place great demands on the healthcare system, while there is slow growth in the labor market. Life expectancy will continue to increase. There will be an increased number of people surviving with chronic diseases. These patients will be more educated, therefore demanding higher quality, technologically savvy, easily accessible healthcare. A gap will continue between what healthcare patients demand and how those services are paid for. Hospital costs will continue to rise due to the shortage of healthcare workers.
- **Income** - The relatively lower median household income in Springfield and the much higher number of households at the poverty level is consistent with a higher level of Medicaid, medically indigent, or uninsured.

COMMUNITY INPUT

Legislative and Hospital Board Needs Assessment Meeting

- At the Legislative and Hospital Board Needs Assessment meeting, participants learned that annual BISCHA analyses have consistently identified Springfield Hospital as one of the most efficient hospitals in the state. Since the Springfield Hospital service area has the highest elder (over 65 year old) population and the highest proportion of Medicare and Medicaid patients in Vermont, the Hospital has to carefully manage its expenses. Two years ago Springfield had an unusual, but moderate operating loss, due to its higher than average Medicare and Medicaid payer mix, which both reimburse at levels less than the cost of services rendered. Through efforts of the Board, management, medical staff, and employees, the hospital has returned to good financial performance.

OVERALL MEASURES OF COMMUNITY HEALTH AND HOSPITAL UTILIZATION

INFORMATION FROM THE DEPARTMENT OF HEALTH

Leading Causes of Death

As in the United States and Vermont, heart disease and cancer are the top two (2) causes of death in the Springfield service area.

- From 1998-2002, as in Vermont, the top four (4) leading causes of death in the Springfield service area were: Diseases of the Heart (25.7%), Malignant Neoplasms (25.3%), Cerebrovascular Diseases (7.5%), and Chronic Lower Respiratory Diseases (5.0%), which accounted for 63.5% of all deaths in the Springfield service area, similar to Vermont (64.3%). While Diabetes was the sixth leading cause of death in Vermont, it was the fifth ranked cause of death in the Springfield area (3.9% of all deaths). In Vermont, Accidents (Unintentional Injuries) were the fifth leading cause of death. **(See Table 4)**
- Compared to Vermont the Springfield service area age-adjusted death rate, from 1998-2002, was slightly higher for All Causes (835.8 vs. 819.3) and for two (2) of the five (5) leading causes of death: Malignant Neoplasms (211.3 vs. 199.7) and Cerebrovascular Diseases (62.4 vs. 54.8). The Springfield service area rates of death were lower than Vermont for Diseases of the Heart (209.1 vs. 225.1) and Chronic Lower Respiratory Diseases (40.5 vs. 47.5), but somewhat higher for Diabetes (32.3 vs. 26.2). It is unknown if differences in rates of death for the Springfield service area are statistically significant, compared to Vermont. **(See Tables 4 - 5)**
- From 1998-2002, a total of 1,593 people in the Springfield service area died from all causes or an average of 319 deaths each year: 82 deaths on average, each year, from Heart Disease; 81 from Malignant Neoplasms; 24 from Cerebrovascular Diseases; 16 from Chronic Lower Respiratory Diseases; 12 Diabetes deaths, and 104 deaths from all other causes. **(See Tables 4 - 5)**

Inpatient Discharges among Springfield Service Area Residents

In 2002, there were a total of 3,210 inpatient discharges among Springfield service area residents who were discharged from hospitals in Vermont, New Hampshire, Massachusetts, or New York (6.0% of all Vermont resident discharges, disproportionately higher than the area population). (See Tables 9 - 10)

Age-adjusted inpatient discharge data is broken down into three (3) categories of discharges, from the least to the most level of clinical detail. The data below has been significance tested to determine if differences between inpatient discharges from Springfield Hospital, compared to all Vermont hospitals, are statistically significant. Thus, only those discharges that are significantly higher or lower than the state total are noted, since all other discharges are not considered significantly different from the state:

- **Major Diagnostic Categories (MDCs)** (excluding newborns) – A macro view of inpatient discharge data reveals that Springfield service area residents had a statistically significant higher rate of inpatient discharges per 1,000 population than for all Vermont residents, for the following categories: **Delivery and Abortion** (29.7 vs. 21), **Mental Health** (11 vs. 5.0), and **Infection** (2.5 vs. 1.6), while the **All Other** category was lower among Springfield area residents, compared to Vermont (1.1 vs. 2.2). (See Table 9)

Significantly higher rates of inpatient hospital discharges among Springfield service area residents for these conditions can be determined by a variety of factors, including:

- Higher rates of **Delivery and Abortion** discharges may be due to a higher birth rate, C-Section and/or abortion rate.
- Higher inpatient discharge rates for **Mental Health** may be due to area residents' greater propensity to seek treatment and/or underlying socio-economic factors.
- Higher inpatient discharge rates for **Infection** may be due to higher respiratory and/or other infections among area residents.
- **Top 25 Diagnosis Related Groups (DRGs)** – A more detailed analysis of inpatient discharges reveals that, within the Major Diagnostic Categories (in bold), Springfield service area residents had statistically significant higher rates of inpatient discharges than Vermont residents, for the following of the Top 25 diagnoses (See Table 11):
 - **Mental Health** – Psychoses and Neuroses (depressive and non depressive)
 - **Delivery and Abortion** – C-sections, without complicating conditions
 - **Respiratory** – Respiratory infections and inflammations over age 17, with complicating conditions
 - **Heart & Circulatory** – Circulatory disorders with acute myocardial infarction (heart attack) & Cerebrovascular complications, Atherosclerosis with complicating

conditions, and Circulatory disorders with acute myocardial infarction (heart attack), without Cerebrovascular complications

- **Infection** - Septicemia over the age of 17
- **Top 10 Clinical Classification Software (CCS) Single Level Procedure Groups** – Further analysis reveals that Springfield service area residents had statistically significant higher rates of inpatient discharges, than all Vermont residents, for psychological and psychiatric evaluation and therapy, other procedures to assist delivery, Cesarean section, and indwelling catheter. (See **Table 6**)

Inpatient, Outpatient and Emergency Department Discharges from Springfield Hospital

The types of discharges from Springfield Hospital are determined by many factors, as noted below. However, since data in this section is not age-adjusted, significance tested or trended over time, contributing factors can only be hypothesized, but may include:

- **Location** – Springfield Hospital’s location off Interstate 91 and close proximity to 3 major ski areas, several private ski areas, and other recreational sites may result in greater rates of injury admissions, for example.
- **Service Mix** – The type and severity of cases treated at Springfield Hospital depend, in large part, on the mix of services it offers.
- **Population Demographics** – Higher rates of inpatient utilization may be due to population demographics (e.g., older age, lower income) and residents’ lifestyles and behaviors (e.g., smoking), which impact health status (e.g., respiratory illness).
- **System of Care** – The system of care that develops in a region, over time, is comprised of a variety of complex factors including practice patterns of physicians in the community; the availability of community services that impact utilization of medical care (e.g., transportation, home care, etc.); patients’ culturally accepted practices (e.g., delay of care until it is “serious”), and behavioral and lifestyle risk factors of the population (e.g., smoking). Small area analysis will be required, in order to better understand the impact of these factors on the delivery of care in the Springfield service area.

Inpatient Discharges from Springfield Hospital

In 2002, there were a total of 2,583 inpatient discharges from Springfield Hospital (excluding newborns) for Vermont residents and non-residents, which is 4.9% of the total discharges for all Vermont hospitals, proportionate to the area population. (See **Table 16**). An analysis of resident inpatient discharges, statistically tested for significant differences from the state as a whole, is provided in the previous section.

Outpatient Procedures Performed at Springfield Hospital

In 2002, Springfield Hospital performed a total of 2,218 outpatient procedures for Vermont residents and non-residents representing 3% of the State's total procedures, which is disproportionately lower than the area population. (See Table 24)

This proportionately lower volume of outpatient procedures is due to the low volume of general surgery at Springfield Hospital and the out-migration of surgeries to other hospitals. During this period, two (2) general surgeons worked as one full-time equivalent and there were no ENT or urology specialty physicians practicing in the service area. (Note: Recently, both an ENT physician and urologist have been recruited and a third general surgeon is being sought.)

The types of outpatient procedures at Springfield Hospital are analyzed by two (2) categories of procedures, from the least to the most level of clinical detail:

- **Outpatient High Level Procedure Groups** – A macro view of the outpatient data reveals that in 2002, the highest proportion outpatient procedures at Springfield Hospital was for operations on the digestive system (50.1%), much higher than for all Vermont hospitals combined (31.9%), perhaps due to lower proportionate volumes for other procedures (e.g., skin and breast, nose and mouth and pharynx, etc.). Several other categories of surgery were equivalent to the state average, including operations on the musculoskeletal system (14.9% vs. 14.7% for Vermont), operations on the eye (8.7% vs. 8.9% for Vermont) and operations on the urinary system (2.5% for both). However, this data is questioned by the hospital since the Urologist practicing in the area left in the late summer of 2002. Therefore, outpatient urinary system discharge data for Springfield Hospital should be further explored. (See Table 24)
- **Top 10 Outpatient Single Procedure Groups** – A more detailed analysis shows that, in 2002, among the top 10 single level procedure groups for Springfield Hospital, colonoscopy and biopsy represented the highest proportion of procedures, which is much higher than for all Vermont Hospitals (27% vs. 12%). This is perhaps related, in part, to the area's higher proportion of older adults, possibly more aggressive cancer prevention and detection protocols for this colon cancer screening procedure recommended for 50+ year olds, and/or the fact that other procedures in the state's top ten procedures were to some extent migrating to other hospitals (See Tables 29 and 31).

Emergency Department Visits at Springfield Hospital

- **Total Visits and Utilization** – In 2002, Springfield Hospital had a total of 12,317 Emergency Department visits by Vermont residents and non-residents, including visits that resulted in admission, or 5.8% of the State total, proportionately slightly higher than the area population. This indicates a slightly higher Emergency Department use, potentially due to greater tourist use and/or residents' historical medical care utilization patterns. (See Table 34)
- **Types of High Level Diagnosis Group Visits** – In 2002, 32.7% of all Emergency Department visits at Springfield Hospital were for injury and poisoning, similar to

Vermont (32.6%) and the most frequent reason for an ED visit among all age groups, but highest among children (45.8% of visits among 0-17 year olds).

Over one-fifth of all Emergency Department visits to Springfield Hospital were for two (2) conditions that potentially could be seen in a doctor's office – diseases of the respiratory system (10.8%) and symptoms, signs and ill-defined conditions (10.1%). This is similar, however, to all Vermont hospitals combined. Mental disorders accounted for 5.7% of Springfield Hospital's Emergency Department visits, higher than for all Vermont hospitals (3.7%). The proportion of visits for all other diagnoses was similar to the aggregate for all Vermont hospitals. (See Table 34)

- **Types of the Top 20 Single Level Diagnosis Group Visits** – Compared to the aggregate of all of Vermont hospitals, Springfield Hospital Emergency Department visits were somewhat more likely to be for superficial injury and contusion (8.4% vs. 7.2%), headache, including migraine (3.5% vs. 2.5%) and anxiety, somatoform, dissociation and personality disorders (1.8% vs. 0.9%) and less likely for other upper respiratory infections (3.1% vs. 4.0%) or other injuries and conditions due to external causes (1.7% vs. 3.4%). (See Table 38)

Of note are the 271 visits to Springfield Hospital Emergency Department in 2002 for disorders of the teeth and jaw, accounting for 2.2% of all ED visits (similar to Vermont) and potentially indicative of generally inadequate access to dental care. (See Table 38)

- **Age of Emergency Department Users** – Among age subgroups, 21.9% of visits to the Springfield Hospital Emergency Department were made by children; 40.2% by young adults (18-44 years); 18.5% by older adults (45-64 years) and 19.4% by elders 65 years and older. Young adult and elder use of the Springfield Hospital Emergency Department was disproportionately higher than the total population (i.e., 18-44 year olds account for 31.5% of the total area population, but 40.2% of the ED visits and elders represent 17.8% of the population and 19.4% of the ED visits), due to the increased probability of injury and/or illness in these age groups. (See Tables 32-34)

OTHER DATA SOURCES

Springfield Hospital Critical Access Hospital Conversion Feasibility Analysis

- As part of SMCS, Springfield Hospital has been attempting to improve resident health status through an integrated delivery system. This system includes the acute care services delivered by Springfield Hospital, as well as integrated primary care physician services. Both Springfield Hospital and its physician practices emphasize preventative medicine and patient education aimed at healthier lifestyles and the reduction of health disparities.

(Note: An initiative to improve outpatient chronic disease care was begun in 2004 with a model set up at Greater Falls Family medicine. Based on the success of this model, this best practice will be implemented in other primary care practices.)

COMMUNITY INPUT

Key Leader Input

- Springfield Hospital is meeting the needs; if they don't have the services, it can be found in cooperation with Dartmouth Hitchcock Medical Center.
- Based on what I'm seeing, these are good.
- In general, I think the hospital services are quite good.
- For a small community hospital there is a good amount and quality of care. It is more than comparable to other hospitals.
- I haven't had reason to use the hospital in years, but the feedback from my clients is that the services are good.
- I think most people choose a hospital because of convenience of location.
- In the last few years I have seen a change in corporate attitude (at Springfield Hospital)- the staff is friendlier and more outgoing. The biggest change I noticed is that there is not as much waiting. If the doctor or procedure is to be delayed you are told and generally given an estimate as to how long the wait may be. It sends a message that you care about your customer and that he/she is not a number.

PRIORITIES

Health Improvement Priorities

- Decrease heart disease and stroke death rate
- Decrease cancer death rate
- Decrease chronic respiratory disease death rate
- Decrease rates of Diabetes
- Decrease infectious disease rates
- Decrease obesity

Health Resource Priorities

- Increase early detection of Dementia

CANCER

INFORMATION FROM THE DEPARTMENT OF HEALTH

From 1997-2001, on average, there were an average of 159 cases of cancer detected among Springfield service area residents (5.3% of all Vermont resident cases), at an age-adjusted rate of 437.6, lower than the State rate of 488.4. Differences in the Springfield service area and Vermont incidence rates for all and specific invasive cancers show that:

- **Female Breast, Lung and Prostate Cancer** are the three most frequently occurring invasive cancers among Springfield service area residents (an average of 24 - 25 cases each per year). The breast cancer incidence rate among Springfield service area women was lower than for Vermont women (128.2 vs. 138.0). The lung cancer incidence rate among Springfield service area residents was similar to Vermont (68.4 vs. 67.7). The prostate cancer rate among Springfield area men was lower than Vermont (146.5 vs. 157.7).
- **Colorectal Cancer** incidence rate among Springfield service area residents was much lower than Vermont (44 vs. 57.9). Each year there were an average of 17 invasive colorectal cancers cases detected among Springfield service area residents.
- **Melanoma Skin Cancer** incidence rate among Springfield service area residents was lower than Vermont (18.3 vs. 24.4). Each year there were an average of 6 invasive melanoma skin cancer cases detected among Springfield service area residents.
- **Cervical Cancer** incidence rate among Springfield service area residents was slightly lower than Vermont (8.7 vs. 9.6). Each year, on average, there were less than 6 invasive cervical cancers cases detected among Springfield service area women. (See Table 54)

OTHER DATA SOURCES

Springfield Hospital Environmental Scan – 2003 – 2004

- Due to the escalating costs of pharmaceuticals and decreasing remuneration via the implementation of Medicare's ambulatory payment classifications (APC), the gap between expenses and payments is growing.
- "Currently, 47% of Springfield Hospital's pharmacy budget is dedicated to providing chemotherapy services for a relatively small percentage of its patients; however, it is strongly believed that this is a responsibility of our community hospital. Nonetheless, as the cost of pharmaceuticals continues to rise and the total federal and state reimbursement declines, it is becoming increasingly difficult to offset the losses in such specialized services."

COMMUNITY INPUT

- The clinic (outpatient oncology) is the best around in my opinion.

PRIORITIES

Health Resource Priorities

- Increase access to cancer screenings (colon, breast, etc.)

MATERNAL AND CHILD HEALTH

INFORMATION FROM THE DEPARTMENT OF HEALTH

From 2000 – 2002, the proportion of low weight births (less than 2500 grams for single births only) among infants born to Springfield service area women was higher than for the state as a whole (6.1% vs. 4.6%).

In the three (3) year period from 2000-2002, pregnant women in the Springfield service appeared to be proportionately at higher risk for less favorable birth outcomes, including low birth weight births. Likely contributing factors include:

- Fewer received prenatal care in the first trimester (83.8% vs. 88.9%), although a greater proportion received “adequate” prenatal care (86.8% vs. 82.2%)
- Many more smoked during pregnancy (26.7% vs. 20.1%)
- Slightly more had inadequate weight gain during their full term pregnancy (22.7% vs. 21.3%)

In the same period, a similar proportion of Springfield service area pregnant women gained excessive weight during their full term pregnancy, compared to all pregnant women in Vermont (43.1% vs. 43.3%). (See Table 55)

OTHER DATA SOURCES

Springfield Hospital Critical Access Hospital Conversion Feasibility Analysis

- From 1996 – 2001, despite an infant mortality rate only slightly greater than the weighted state rate (4.8 vs. 4.7 for Vermont), the service area had a higher percentage of births to teen mothers (9.1% vs. 7.7%), more expectant mothers receiving inadequate prenatal care (15.2% vs. 10.8%) and a higher rate of low birth weight babies (61.3 vs. 57.0).

Hospital Joint Leadership Committee

- There is a need to explore the supply of OB/Gyn physicians in the area, particularly a female OB/Gyn, as well as female midwives practicing with OB/Gyn physicians. OB choice is an issue.
- Dental care for pregnant and pre-pregnant women is needed.

- Low birth weight babies are a concern.

COMMUNITY INPUT

Key Leader Input

OB/Gyn

- More reimbursement for patient education is needed, as well as better linkages with other prenatal programs.
- More education is needed. More providers are needed.
- Ludlow needs an OB/Gyn. People would go if one were available.

Pediatrics

- Pediatric care in Ludlow is needed.
- Need more health screenings for pediatrics.
- More time with patients on prevention, reimbursement for such work. Quality improvement projects like VCHIP to show that more patient education affects outcomes.
- The priority on pediatrics is very high when it relates to complicated situations such as diabetes and mental health issues.
- Family practice offices throughout the area should be able to offer pediatric, OB/Gyn and specialty care under one roof; otherwise it's too much traveling.
- All medical personnel should have access to and understand the Youth Risk Behavior Survey.

Physician Input

- More female OB providers are needed to keep more deliveries local. Need female OB provider. Real demand for a female provider.

PRIORITIES

Health Resource Priorities

- Improve prenatal education, early introduction
- Implement a Planned Parenthood of New England outreach clinic in Bellows Falls

Health Improvement Priorities

- Reduce low weight births (addressing prenatal smoking, teen pregnancy, substance abuse, and early prenatal care)

MENTAL HEALTH AND SUBSTANCE ABUSE

INFORMATION FROM THE DEPARTMENT OF HEALTH

Mental Health and Substance Abuse Risk Factors

In the period 2000 – 2003, adults in the Springfield service area appear to be at somewhat lower risk than all Vermonters for some Mental Health and Substance Abuse conditions, because:

- Proportionately fewer (6.3%) are at risk for heavy alcohol consumption (more than two drinks per day for men and more than one per day for women), lower than 7.2% for Vermont
- Fewer report that they drink and drive, much lower than for Vermont (1.9% vs. 4.3%)

However, Springfield area adults appear to be at similar risk for other mental health and substance abuse risk factors, compared to their Vermont counterparts:

- 17.5% are at risk for binge drinking (greater than or equal to 5 drinks or more consumed on one or more occasions) similar to 17.8% for Vermont
- 11.2% are at risk for depression, similar to 11.3% for Vermont
- From 1998 – 2002, the age adjusted suicide death rate was 12.8 (similar to 12.5 for Vermont) or an average of four (4) suicide deaths a year among Springfield service area residents. **(See Table 56)**

Inpatient Discharges for Mental Health

In 2002, Springfield Hospital's Windham Center had 568 Mental Health inpatient discharges among Vermont residents. Forty-three percent (43.3%) of the Mental Health discharges were from Windham County (246 discharges); the next highest proportion was from Windsor County (28.9% or 164 discharges). Other mental health discharges were from patients living in Bennington County (8.3%), Rutland County (4%), Chittenden County (3.2%), and all other counties (12.3%), except Essex. **(See Table 58)**

Springfield Hospital garnered 80.4% of all Vermont resident mental health discharges from Windham County and 39.3% of Windsor County discharges. **(See Table 58)**

Inpatient Discharges for Substance Abuse

In 2002, Springfield Hospital had 21 Substance Abuse inpatient discharges among Vermont residents. The majority of discharges for Substance Abuse were from residents of Windham County (47.6%) and Windsor (33.3%). All other Substance Abuse discharges were from Bennington, Orange and Rutland Counties. **(See Table 58)**

Inpatient Discharges for Mental Health and Substance Abuse

In 2002, Springfield Hospital had a total of 589 inpatient discharges for Mental Health and Substance Abuse. It appears that Springfield Hospital (Windham Center) drew inpatient Mental Health and Substance Abuse patients from a wider area than its service area, since:

- Mental Health and Substance Abuse discharges accounted for 23.8% of all Springfield Hospital inpatient DRG Vermont Resident discharges (vs. 7.7% for all Vermont hospitals). **(See Table 59)**
- Mental Health and Substance Abuse discharges from Springfield Hospital, respectively, represent 16.6% and 2.1% of the State's total resident discharges for these diagnoses. Mental Health discharges were disproportionately higher than the Springfield Hospital service area population. **(See Table 61)**

As a percent of all mental health and substance abuse inpatients at Windham Center, the most frequent Mental Health diagnoses were for Neuroses (13.1% combined for depressive neuroses and neuroses, except depressive) and Psychoses (8.8%). **(See Table 59)**

Compared to Vermont, the average number of episodes for the number of people treated at Springfield Hospital is not out of the norm for repeat users of inpatient Mental Health and Substance Abuse care (1.31 vs. 1.39). Springfield Hospital's length of stay for Mental Health diagnoses was lower than Vermont (7.0 vs. 8.3) and lower for Substance Abuse (4.9 vs. 5.8). **(See Table 61)**

Emergency Department Visits for Mental Health and Substance Abuse

In 2001 and 2002 combined, Vermont residents had a total of 550 emergency visits to Springfield Hospital for Mental Health and/or Substance Abuse as a primary diagnosis, or 3.3% of all Vermont resident Emergency Department visits to Springfield Hospital. It should be noted that Mental Health and Substance Abuse visits are most likely understated, since they include only primary diagnoses. **(See Table 63)**

Mental Health and Substance Abuse Emergency Department visits to Springfield Hospital were primarily from residents of Windsor County (71.6%) and Windham County (23.6%). **(See Table 62)**

As a percent of Springfield Hospitals ED Mental Health visits, other mental conditions was the highest proportion of diagnoses (31.1%), followed by anxiety, somatoform, disassociative and

personality disorder (22.7%), alcohol related mental disorders (14.7%), affective disorders (8%), and substance related mental disorders (7.6%). (See Table 63)

OTHER DATA SOURCES

Springfield Hospital Critical Access Hospital Conversion Feasibility Analysis

The NHSC (National Health Service Corps) uses a benchmark ratio of one psychiatrist to 20,000 people and one mental health professional to 6,000 people to assess whether or not an area has a shortage of mental health professionals. Ratios higher than the benchmarks indicate that the area is experiencing a shortage of mental health workers. Applying this ratio to the service area population results in a prediction of 1.7 FTE psychiatrists and 5.7 FTE other mental health professionals, a total of 7.4 FTEs, needed for the service area to not be considered as having a shortage of mental health professionals. These figures should be considered a minimum level that would not assure optimal access for the population since the indicators are used to measure shortages of mental health professionals.

Springfield Hospital did not provide information regarding the number of area mental health providers; therefore, information was obtained from the November 2001 Critical Access Hospital Conversion Analysis. At that point in time, twelve mental health professionals (7 psychiatrists, 4 psychologists and one psychotherapist) were listed as providing services in the catchment area. Through these providers outpatient mental health services are available and both inpatient and partial hospitalization services are offered by Springfield Hospital at the Windham Center.

Hospital Joint Leadership Committee

- On the outpatient side, a history of mental health/substance abuse cannot be used for ER diagnoses, which results in under reporting of these cases; reporting is further diluted by urgent care mental health services provided in Bellows Falls.

COMMUNITY INPUT

Legislative and Hospital Board Needs Assessment Meeting

- Funding of the Community Mental Health Centers for outpatient care is not adequate, because the rate of budget increases have been inadequate at 1%, which the Centers “have to fight for.” Reportedly, HCRS is a “very fine organization;” with good leadership, however it cannot afford to provide any non-mandated services. This affects service delivery for patients and adversely impacts the Springfield Hospital Emergency Department and inpatient units at the Windham Center in Bellows Falls. Primary Care Physicians sometimes feel like a Psychiatrist, treating anxiety and depression in their offices, due to lack of outpatient providers; it is the “biggest frustration.” Since PCPs see co-existing mental health conditions related to health issues, reimbursement should be considered within the health budget.
- HCRS and Springfield Hospital have a “great collaborative” relationship regarding the continuum of services, with a 20-bed inpatient Psych unit and partial hospitalization

program (PCP) provided by Springfield Hospital. Reportedly, “regulators and payers think we do it well.”

- The majority of patients at Windham have substance abuse issues, but the Center does not offer detox, since it is not a primary substance abuse program. So often mental health and substance abuse issues are “intertwined.” Traditionally, finding treatment for co-occurring mental health/substance is very difficult.
- There is a need to interface with the legislature to change the developmental disability eligibility criteria.

Key Leader Input

- Among consumers answering, over two-fifths (42%) rated mental health a “Very High Priority,” in need of expansion and/or improvement.
- Need more mental health and substance abuse prevention education.
- Expand (mental health and substance abuse) services.
- Assessment services are not available. OK with getting services out of town.
- Psychiatric assessments are not available in Ludlow.
- Better communication with primary care and visa-versa, more integration into primary care and public health. More psychiatrists for referrals, and child psychiatry needed.
- Co-case management: educate patients (public) about the benefits of talking about mental health and not something to hide. Also, train physicians in how to listen, intervene, and refer.
- Integrated care between primary care and mental health and substance abuse. Easier and more access to group treatment and other treatment modalities.
- Ridgewood Associates, Partners in Family Medicine and Dr. Hughes have an integrated case manager for mental health. This model needs to be expanded.
- In pediatrics, a mental health/social worker should be connected to every physician practice to help families.
- There are gaps in the system, especially in substance abuse treatment.
- Treatment of youth who are involved with substances is needed. How would the hospital partner with the Recovery Center here in Springfield?

Physician Input

- Child psychiatry assessment and treatment that involves medications are needed.
- Emergency care and routine care are covered but "urgent" patients fall through the cracks.
- There is a lack of resources for outpatient substance abuse treatment.
- (My suggestion is to) recruit a pediatric psychiatrist to the area.
- We need more practitioners for child psychiatry assessment and treatment, including medications.
- Child psychiatry and counseling are inadequate.
- Residential care for psychiatric outpatients is needed.
- Effective mental health is needed.

PRIORITIES

Health Improvement Priorities

- Decrease substance abuse rates (adult binge drinking and youth substance abuse)
- Decrease mental illness (depression) among adults and youth

Health Resource Priorities

- Increase resources for outpatient substance abuse and co-occurring disorders treatment
- Increase substance abuse prevention education
- Increase resources for child psychiatry and treatment services, including medication management.
- Increase resources for adult psychiatric care.
- Increase access to mental health prevention education programs.
- Increase access for "urgent" (i.e., non-emergency) mental health patients.
- Interface with the legislature to change the developmental disability eligibility criteria
- Increase early detection and identification of depression
- Improve integration of primary care and mental health
- Increase primary care providers' awareness of co-occurring (mental health and substance abuse) disorders to assure appropriate referrals

CHRONIC DISEASE

INFORMATION FROM THE DEPARTMENT OF HEALTH

Age adjusted data indicate that a similar proportion of adults living in the Springfield service area and all of Vermont have been told by a doctor that they have a chronic disease, including: **Diabetes** (4.8% vs. 5.2%), **Chronic Obstructive Pulmonary Disease** (4.3% vs. 3.9%), **Asthma** (7.8% vs. vs. 8.2%) or **Heart Attack** (Myocardial Infarction) (3.9% vs. 4.5%). (See Table 64)

Coronary Artery Disease may be more prevalent among Springfield service area residents, since a slightly higher proportion of Springfield area residents say “they have been told by a doctor” that they have **Heart Disease**, compared to Vermont (6.1% vs. 4.6%), although it is unknown whether this difference is statistically significant. (See Table 64)

(Note: An initiative to improve outpatient chronic disease care was begun in 2004 with a model set up in Greater Falls Family medicine. The success of this model has led to the spread of the initiative to three more practices.)

COMMUNITY INPUT

Legislative and Hospital Board Needs Assessment Meeting

- **Dialysis** - Several years ago, Springfield Hospital considered becoming a dialysis satellite of Dartmouth-Hitchcock Medical Center, which submitted a Certificate of Need for a nine (9)-chair unit. Then, both Dartmouth-Hitchcock Medical Center and Springfield Hospital encountered financial issues and decided against the project, as it required ongoing and indefinite financial subsidy. The need is small in a rural area, estimated at 20-30 people at any one time. Thus, it becomes a question of allocating resources to serve more, rather than fewer people. Transportation to dialysis services is the key issue; a mobile unit is in the R&C phase and home dialysis depends on risk level of patient.

Physician Input

- Influenza immunizations for elders are needed. (Note: This comment was made in reference to the nationwide shortage of vaccine in 2004.)

PREVENTION

INFORMATION FROM THE DEPARTMENT OF HEALTH

Preventive Immunizations

Age adjusted data indicate that, when compared to Vermont, Springfield service area adults appear to be similarly likely to take measures to prevent Influenza (flu) and Pneumonia:

- The same proportion report they have had a flu shot in the past 12 months (74.3%)

- 65% of elders in the Springfield area had a Pneumonia shot, similar to Vermont (66.2%)

Preventive Cancer Screenings

Age adjusted data indicate that, when compared to Vermont, Springfield service area adults appear to be similarly likely to take preventive measures to detect cervical cancer (86% had a pap smear test within the past 3 years in the Springfield area and in Vermont).

However, Springfield area women 40 years and older appear to be more likely than their Vermont counterparts to have had a mammogram within the past 2 years (79.1% vs. 75%). Colon cancer screening rates are lower in the Springfield area than in the state (41.7% ever had a sigmoidoscopy / colonoscopy vs. 47.8% for Vermont and 46.6% had a blood stool test using a home kit vs. 52.6% for Vermont). (See Table 65)

Prevention Quality Indicators

“Prevention Quality Indicators are a set of measures that can be used with hospital inpatient discharge data to identify “ambulatory care sensitive conditions” for which good outpatient care can potentially prevent the need for hospitalization, or for which early intervention can prevent complications or more severe disease. They provide insight into the quality of the health care system outside the hospital setting.”

Although it is not known if differences between Springfield service area and Vermont residents are statistically significant, data appears to indicate a need to increase access to primary care screenings, episodic care and disease management, as well as to improve lifestyle and behaviors of Springfield service area residents. In addition, community education on the importance of preventive care may be needed to change cultural beliefs that may preclude people from seeking care to prevent illness, before it becomes necessary to be hospitalized.

Based on 1998-2002 age and sex adjusted inpatient discharge rates for Springfield service area residents discharged from Vermont, New Hampshire, New York and Massachusetts hospitals, compared to Vermont residents, people living in the Springfield service area appear to have higher rates of potentially preventable hospital discharges for:

- **Respiratory Illness** – Adult Asthma (77.9 vs. 57.9); Bacterial Pneumonia (358.7 vs. 319.4) and Pediatric Asthma (129.2 vs. 76.7)
- **Heart Disease** – Angina (155.6 vs. 82.4)
- **Diabetes** – Short term complications (35.0 vs. 34.0) and Uncontrolled Diabetes (9.1 vs. 6.4)
- **Digestive** - Pediatric Gastroenteritis (77.2 vs. 52.5) and Perforated Appendix (335.9 vs. 316.8)
- **Urinary Infection** – (119.4 vs. 91.1)

However, Springfield area residents appear to have lower rates of **COPD** discharges (167.6 vs. 217.1), **Congestive Heart Failure** (269.6 vs. 309.7), **Dehydration** (55.9 vs. 75.8), **Long Term Complications from Diabetes** (74.4 vs. 83.0), and **Hypertension** (9.6 vs. 10.9) and, thus, some patients may receive adequate primary care, compared to their Vermont counterparts. (See **Table 66**)

COMMUNITY INPUT

Key Leader Input

- More prevention education is needed (expand services).
- More wellness screenings are needed.
- The hospital should work with area businesses to promote wellness.
- The classes offered in smoking cessation, diabetes, etc. are impressive for a small hospital.
- Health Education programs are a great thing.
- Reach kids and families through schools and community programs.
- Ultimately, I would love to see Health Unlimited coordinate all the health education classes for both hospitals (Springfield & Mt. Ascutney) or at least be the single resource for community members to call when they want to know about a health education program in their community.
- Components of the Critical Care Model will make more of a real impact.

PRIORITIES

Health Improvement Priorities

- Decrease rates of smoking, including prenatal smoking
- Reduce obesity

Health Resource Priorities

- Increase adult immunization
- Assess environmental risks and assets (water, lead radon, air quality, recreation access, housing, etc.)
- Increase prevention education programs, including nutrition, exercise, etc.
- Increase wellness screening programs
- Increase efforts of Springfield Hospital and area businesses to promote wellness
- Increase access to influenza immunizations
- Increase access to pneumonia vaccines
- Increase support services and education for caregivers

- Educate consumers to assure appropriate use of ER and health care resources

ACCESS

INFORMATION FROM THE DEPARTMENT OF HEALTH

Access to Medical Care

Age adjusted data indicate that, compared to Vermont, Springfield service area residents appear to be slightly more likely to have some type of insurance (89% vs. 87.2%), be unemployed (4.3% vs. 3.8%) and not to be able to afford to see a doctor (9.1% vs. 8.9%). (See Table 67)

Three (3) Federally Qualified, Rural and/or Free Health Centers are available in the service area:

- Precision Valley Free Clinic
- Health Center at Bellows Falls (RHC)
- Ludlow Family Medicine (RHC) which is now Ludlow Health Center (See Table 69)

Access to Dental Care

Springfield service area and Vermont residents are similarly likely to have had a dental visit within the last two (2) years (84.4% vs. 84.2%). However, over 15% of residents had no dental care in the past two (2) years. (See Table 67)

Access to Nursing Home Care

There are three (3) nursing home facilities within the Springfield service area, all of which were close to or over 90% occupied in 2002: McGirr Nursing Home (86.2%), Gill Odd Fellows (88.2%) and Springfield Health and Rehab Center (95.1%), indicating discharge from hospital to nursing home care is likely problematic for some area elderly residents and providers. (See Table 68)

OTHER DATA SOURCES

Springfield Hospital Environmental Scan 2003 – 2004

- Individuals as consumers will play a more active role in the financial component of their care. Here are some basic assumptions about consumer spending and health plans:
 - The medical cost component of the Consumer Price Index will rise from its current level of 5.5% annually to the double-digit (10% or higher) inflation levels within the next two to five years.
 - Major employers will become more aggressive about the high costs of health benefits, and many – up to 25% - will shift to “defined contribution” in the next two to five years.

- Employers will compel employees to share an increasing amount of the costs of their health benefits through higher co-payments and deductibles.
- Consumer-driven health plans, e.g., patient customization of benefits and payments, will become a major trend within five years.
- Springfield Hospital is currently increasing its capacity in Charlestown, New Hampshire to meet the anticipated demand created by forecasted population growth in the area.

Hospital Joint Leadership Committee

- **Access to Primary Care** – Pediatric access is “great.” For adult PCP access, the open access design should be explored by looking at demand in the Charlestown and Ludlow practices.
- **Access to Specialty Care**
 - **Geriatrics** - There is a “huge population” of elders and geriatrics is needed as a specialty in the area.
 - **Bariatrics** - Increasingly, “morbidly obese and overweight” patients are a concern for staff and hospitals that must “use equipment” to lift and transport them.
 - **Surgery** - Surgical choices are needed in the area, including ENT, Urology, General Surgery and Gyn. (Note: Springfield Hospital recruited an ENT and a urologist in 2004. An ongoing search for a general surgeon continues.)
- **Elder Care**
 - The Medicaid 1115 waiver will equalize access to nursing homes and increase the option of nursing home type care in the home.
 - More complex patients are now accessing adult daycare and back-up in hospital is needed to serve this population. A population-based analysis is needed on what programs and services will be needed to serve an aging population in the “pipeline.” A second adult daycare site may be needed, therefore.
 - It now costs about \$50,000 - \$60,000 a year for nursing home care and about \$25,000-\$30,000 a year for adult day care. It is in the best interest of the community to encourage adult day care to take a higher capacity of patients. Nursing staff is required every day, as well as an Activity Director, Social Services, CRNA’s and transportation.
 - Council on Aging, Disabilities and private funding are needed for assisted living and independent living programs.

COMMUNITY INPUT

Legislative and Hospital Board Needs Assessment Meeting

- **Cost of Health Care** - Legislators report that they “hear constantly that people are concerned with healthcare access.” Legislators further explained that, “We have access, it is not an issue. “Affordability is a 3” (i.e., Very High Priority). Legislators commented that, to their constituents, health care cost is “number one;” they are “stunned by the costs” of healthcare (e.g., charged \$30 for Band-Aids). Some insurance plans don’t cover good preventive care that would “definitely” prevent higher cost care. People are increasingly under financial pressure to afford heat, cable and food and are “downsizing health insurance,” by setting larger deductibles. More people in the middle class are reportedly either uninsured, dropping insurance or have large deductibles. This will impact the hospital in higher uncollected debt. One Legislator expressed the feeling that consumer driven healthcare is considered a “misnomer,” since a solution depends upon government and institutions to enable consumers to access affordable, friendly, and responsive care. Healthcare proposals are needed to provide universal coverage and access to health services. Every payer must pay its fair share to obtain preventive primary care so patients don’t get really sick and require very expensive care.
- **Other Key Priorities** - Legislators identified other priorities for increased consumer access to Mental Health and Substance Abuse Care, Prescription Drugs, Medical Care for the Uninsured, Preventative Care for all consumers, and sustaining Dental Care Access.
- **Pediatrics** - Legislators noted that Medicaid changes to Dr. Dynasaur have reduced the number of kids covered (1000 statewide), so that a strep throat becomes “advanced.” They noted the problem is “not about access,” because patients can go to an emergency room. The issue is coverage, so that services are not received until it’s a “disaster.” Pride and dignity are also considered “part of problem”. Even though primary care clinics are available, some people don’t want to put themselves in that position.
- **Prison Health Care**
 - Springfield Hospital sees “quite a bit” of the prison population as patients, in the Emergency Department, as inpatients and by its on call physicians. Although many prisoners are local residents and contracting with local hospitals would improve these patients’ continuity of care, Prison officials did not talk to Springfield Hospital before it began construction of its state-of-the-art health facility, which includes a dialysis chair.
 - A consortium bid by Vermont hospitals for a prison health care contract, through the Bureau of Prison’s Request for Proposal, was recommended by JSI, a consulting firm. However, there were “too many unanswered questions”, the timeline was too short for a RFP reply, and there was no contract extension to allow an alternative bid from the hospitals. CMS, a national contractor, was awarded the bid, however, to date, the “Inside the Walls” health facility at the prison is not completed.

- There has been “Legislative talk” about whether to contract directly with prison to provide mental health and substance abuse care.
- Currently, treatment of these complicated patients is reimbursed below the current Medicaid level; however, third party negotiations with CMS and Springfield Hospital for payment are not yet resolved.
- **Access to Dental Care**
 - Access to dental care is an issue for Medicaid patients, in particular.
 - The dental program in Bellows Falls, operated by the Department of Health and funded through \$600,000 in grants and donations (a Community Development Block Grant, Rotary funding, etc.) is a “fantastically successful” effort, but there are concerns that it will “get overwhelmed.” This model program, one of several in the state, was placed in a cellar storage area that was “dead space” in the building. It also provides dental care for pregnant and child bearing age women, to reduce rates of dental chronic infection and low birth weight births.

Key Leader Input

- **Very High Priorities** - Among Key Leaders answering, the need to increase and/or expand the following services, by the proportion of those rating it a “Very High Priority” rating are noted below:

○ Specialty Care	53%
○ Adult Primary Care	42%
○ Dental Care	42%
○ OB/Gyn	40%
○ Pediatric Care	27%
- **Barriers to Care** - Healthcare needs to be affordable! People choose not to go to a doctor because of cost. After hours access is nonexistent. Major problems are referred out of the area; this is inconvenient. Access for people without insurance to get preventive care, checkups, etc. is needed.
- **Pediatric Care** – It would be desirable to have pediatric specialists in family practice offices throughout service area. Need more options for people with HMO insurance coverage and more specialists in pediatric care. Pediatric care in Ludlow is needed.
- **Adult Care** - Very satisfied with adult emergency services. Ludlow is easy to schedule, but needs more choices in primary care. We need one place to call to get a referral for an available doctor.
- **Specialty Care** – Cardiology is needed. Bring podiatry back to Ludlow; we have to travel and winter makes that difficult, especially for the elderly. A Pain clinic is needed. One has to go out of town for some specialties. Alzheimer's and Hematology specialists are needed in the community.

- **Emergency Care** – There is no nighttime access in Ludlow; patients must drive to Springfield. There is a need to expand hours of care in Ludlow. Current needs being met at Springfield Hospital, however, there are some times when I have arrived in severe pain and it took quite a while to get approval for some pain medicine.
- **Dental Care** – There is not enough dental coverage in Ludlow. I don't think the hospital needs to get into dental care. Again, it would be nice to have a number to call to get a referral especially on weekends or holidays.
- **Elder Care** - Rockingham needs more elder services. Primary care doctors need a greater knowledge of long-term care needs.
- **Urology** - I understand there is someone available now but I had to go to Brattleboro to get treatment.
- **Dermatology** - People are waiting three months for dermatology.
- **TRANSPORTATION!!!!**
- **Customer Service** - Things are more on time, if there is a delay you are informed - it shows you care about your customers. (Note: The Hospital is conducting an operational redesign that focuses on service excellence. This project began in early November 2004.)

Physician Input

- **Barriers to Care** – Better health insurance: too much bureaucracy, physicians should be able to negotiate as large groups with insurers. Social work assistance is needed in the community for the marginal, burdened, and poorly resourced, i.e. the poor. Walk-in care in Springfield is needed.
- **Adult Care** - Evening and/or limited coverage on Saturdays. More office hours are needed to reduce inappropriate use of ED.
- **Specialty Care** -Cardiology is needed locally, not just an outpatient clinic. Anesthesiology should be expanded. Improved general surgery services are needed. Urology is needed. Rheumatology, Pulmonary, Neurology, Dermatology and Urology are needed. ENT and Urology call coverage for the Emergency Department is needed.
- **Emergency Care** - Focus on patient experience; wait times, and quality of care. Need 24-hour physician coverage. Consider improving low acuity care (Fast Trak).
- **Dental Care** - Consults after hours and weekends are needed. Reinstate the old system of "on call" dentists. On call dentists needed for emergencies. More dentists needed, emergency coverage. Dental care access for children is needed. Pediatric dental coverage is needed.

- **Radiology** - MRI as a traveling unit is inconvenient. X-ray coverage in Bellows Falls is needed.

Focus Group Input on Unmet Community Health Needs

- Unmet community needs are varied, with pain management, preventive services, alternative care and patient advocacy the most consistently mentioned unmet needs.
- In addition to physician access, mentioned by some consumers, other unmet health needs included:
 - DHMC closer to home (Ludlow)
 - Allergist (Ludlow)
 - Better access to cancer care (Ludlow)
 - Satellite cardiovascular care (Ludlow)
 - OB/Gyn (Ludlow and Charlestown) (Note: OB/Gyn specialist Dr. Cahill now has clinic hours in Charlestown.)
 - Pain Management (Springfield, Charlestown)
 - Better diagnostics, e.g., thyroid testing (Springfield)
 - Preventive Services (including nutrition) (Bellows Falls, Charlestown)
 - Holistic Care, Herbal, Homeopathic, Alternative Medicine (Charlestown, Bellows Falls, Springfield)
 - Dialysis (8 mentions in Springfield, also mentioned in Charlestown)
 - Affordable dental care (Bellows Falls) (Note: This comment was made prior to the opening of the dental clinic at the Health Center in Bellows Falls)
 - Support Groups (Bellows Falls)
- Patient advocacy, case management, coordination, and integration were mentioned as a need in several communities (Ludlow, Bellows Falls and Springfield). Some respondents expressed dismay with today's healthcare environment; there seemed to be the feeling that "a lot of healthcare is getting that way", i.e., "you have to double check"; nurses "hurry too much", "you have to have someone there at all times", there is a "shortage of nurses", "true everywhere".

PRIORITIES

Health Resource Priorities

- Continue the outpatient chronic disease care initiative in physician practices.
- Increase access to primary care through exploration of the open access design in Charlestown and Ludlow practices.
- Increase access to health care for the uninsured and underinsured
- Increase access to prescription drugs
- Increase access to transportation for health care purposes
- Provide Walk-In Care in Springfield
- Offer Holistic Care, Herbal, Homeopathic, Alternative Medicine

- Provide patient advocacy, case management and coordination services (to include Medicaid and Medicare)
- Develop a 24-Hour Nurse Hotline
- Provide local access to a Gastroenterologist
- Increase access to an Infectious Disease specialist
- Provide access to a geriatric specialist
- Increase access to surgical care options in the area by recruiting ENT, Urology, General Surgery and Gyn surgeons
- Develop a Pain Clinic
- Provide access to a local Memory Clinic (Neurologist based)
- Sustain current dental care access
- Improve dental health access for Medicaid and uninsured patients
- Expand pediatric dental coverage
- Provide after hours, weekend and on call dental consults
- Expand dental access for OB patients
- Increase access to oral surgeons (recruitment of additional providers and transportation to existing services)

LIFESTYLE AND BEHAVIOR

INFORMATION FROM THE DEPARTMENT OF HEALTH

In 2003, Springfield service area eighth to twelfth graders report two (2) alarmingly risky lifestyle behaviors that diminish their Mental Health and well-being:

- **Substance Abuse** – 20.7% smoked, 37.9% used alcohol and 28.4% used marijuana in the past 30 days (a higher proportion of marijuana use than 24.6% of Vermont youth)
- **Depression** – 22.7% felt sad or hopeless almost every day for two (2) weeks in a row and, subsequently, stopped doing usual activities (23.3% Vermont); 13.1% made a suicide plan (same as Vermont) and 8.1% attempted suicide during the past 12 months (a higher proportion of suicide attempts than among 7 % of Vermont youth). **(See Table 70)**

Adult Lifestyle and Behavior

Age adjusted data indicate that, compared to Vermont residents, Springfield service area adults appear to be slightly more likely to be in poor health for their age, since a greater proportion rate their health status “fair or poor” (13.9% vs. 10.9% for Vermont). **(See Table 71)**

There is room for improvement in the lifestyle and behavior habits of Springfield service area adults, in order to improve the health status of the area population. Health behaviors that need improvement include:

- **Elder Dental Health** – 21.1% of elders 65 years and older lost six (6) or more teeth due to disease (greater than 18.8% for Vermont)
- **Exercise** – 22.3% were sedentary in the last month and only 51.5% meet the physical activity recommendation (less favorable than 20.0% and 55.1%, respectively, for Vermont)
- **Overweight** – 53.7% are over healthy weight (same as Vermont)
- **Smoking** – 22.5% currently smoke (higher than 21.2% for Vermont) therefore, a higher proportion of smokers quit one (1) day or longer during the past year (47.4% vs. 45.3% for Vermont)
- **Blood Pressure** – 20.1% have been told they have high blood pressure (similar to 21.7% for Vermont)
- **Falls** – 16.8% of older adults (45 years and older) fell to the ground / floor in the last three (3) months (similar to 16.4% for Vermont) **(See Table 71)**

COMMUNITY INPUT

Key Leader Input

- All medical personnel should have access to and understand the Youth Risk Behavior Survey.
- Very pleased with existing services. School education in obesity, sex, and drugs is needed, as well as more diabetes education. Support skills in high school and more presence in the schools are needed.

Physician Input

- Need more adolescent focused preventive care programs.

INJURY AND VIOLENCE

INFORMATION FROM THE DEPARTMENT OF HEALTH

Falls, Fire, Motor Vehicle Crashes and Assaults

In 2002, there were 3,988 Injury and Violence Emergency Department visits to Springfield Hospital: 3,928 injury visits and 60 assault visits.

Falls comprised 35.3% of Springfield Hospital's total injury visits (1,386 falls and much higher than the State's 27.4% in total and for all age groups). All other categories of injury and violence related Emergency Department visits to Springfield Hospital were greater for motor vehicle crashes (8.7% vs. 7.7%), but less for assaults (1.5% vs. 2.2%) and fire (0.2% vs. 0.4%).

Again, these elevated rates may be due to a combination of factors, including a proportionately older population and/or close proximity to major recreational areas, for example. (See Table 72)

Abuse and Neglect

In 2002-2003, rates of physical abuse, sexual abuse and neglect in the Springfield service area were reportedly much higher than for Vermont as a whole: (See Table 73)

- Physical abuse rate was much greater than Vermont (27.7 vs. 16.6)
- Neglect rate was much greater than Vermont (61.5 vs. 36.2)
- Sexual abuse rate was much greater than Vermont (46.9 vs. 30.2)

OTHER DATA SOURCES

Hospital Joint Leadership Committee

- Abuse is high in our service area. Prevention is needed. We should be part of a collaborative to address this issue.

PRIORITIES

Health Improvement Priorities

- Decrease injury rates (falls, fires, and motor vehicles)
- Decrease abuse and neglect rates

Health Resource Priorities

- Increase injury prevention programs

WORKFORCE

INFORMATION FROM THE DEPARTMENT OF HEALTH

Physician Supply

According to the 2002 Department of Health Physician Survey, in the Springfield Hospital service area:

- The Family Practice and Internal Medicine to adult population ratio is 82.9, higher than 75.2 for Vermont. (See Table 74)
- The Family Practice and Pediatric Physician ratio to child population is 173.1, which is lower than 194.9 for Vermont. (See Table 75)

- The OB/Gyn physician to population ratio is 10.9, higher than 9.6 for Vermont.
- The Anesthesiologist to population ratio is 6.9, lower than 11.2 for Vermont.
- The Emergency Medicine physician to population ratio is 3.5, much lower than 9.8 for Vermont.
- The Specialized Internal Medicine physician to population ratio is 1.8, much lower than 15.7 for Vermont.
- General Surgeon to population ratio is 6.9, similar to 7.0 for Vermont.
- Orthopedic Surgeon to population ratio is 6.2 is lower than 8.1 for Vermont.
- Child Psychiatrist to population ratio is 3.1, much lower than 9.8 for Vermont.
- Psychiatrist to population ratio is 14.1, lower than 16.4 for Vermont.
- Radiologist to population ratio is 5.6, much lower than 10.5 for Vermont.
- Urologist to population ratio is 1.6, much lower than 3.7 for Vermont.
- Ophthalmologist to population ratio is 3.4, lower than 6.4 for Vermont. **(See Table 76)**

Further, the study indicates that a much lower proportion of Primary Care Physicians in the Springfield service area are not accepting new, Medicaid or Medicare patients (2.3%, 2.3%, and 1.1%, respectively) compared to Vermont (16.9%, 25.1% and 22.2%, respectively). **(See Table 77)**

With respect to the “graying” of Primary Care Physicians, it appears that the Springfield service area has a larger proportion of physicians over the age of 60 years (14.6% vs. 8.4% for Vermont). **(See Table 78)**

However, based upon a review of the information provided by the Vermont Department of Health with respect to physician manpower, it is questionable whether the information remains relevant today considering the specific data cited was reportedly derived from a 2002 survey. Also, it should be noted that the BISCHA defined market area for this study does not include the New Hampshire market served by Springfield Hospital, which is included in the *Market Assessment* study data below.

Further, regarding the physician manpower data, it is important to underscore that each Vermont service area is unique, as is the physician staffing model in place at each hospital. For example, for the Springfield Service Area, 1.0 Emergency Medicine Physician is reported translating into 3.5 Emergency Medicine Physicians per 100,000 population compared to 9.8 for Vermont overall. This is the result of a unique staffing model at Springfield Hospital whereby the Emergency Department is staffed 24 hours a day by Physician Assistants overseen by 1 full time Emergency Medicine Physician and supported by primary care physicians and specialists on call.

In terms of physician manpower planning, the leadership of Springfield Hospital monitors an ongoing basis, which physician practices are open or closed to new patients as well as the age and retirement (or slow down) plans of members of the Medical Staff. As such, as physicians near retirement age, discussions are initiated in order to formulate transition plans to promote continuity of care for the residents of the service area.

Nursing Supply

In 2004, the nursing vacancy rate at Springfield Hospital was low at 4% with only a 6% turnover rate. However, due to the nursing shortage statewide, it took 58 days to fill a nursing position at the hospital and traveling nurses accounted for 5% of the nursing budget at Springfield Hospital. **(See Table 79)**

Other Health Care Professionals

In 2004, reportedly the most difficult health care provider position to fill at Springfield Hospital is a Pharmacist position. Radiology Technologist was also a difficult position to fill, with a 13% vacancy rate.

In addition, from 2002-2003 it has reportedly become increasingly difficult to fill Physical Therapist positions at Springfield Hospital. **(See Table 79)**

Dentist Supply

According to a 2002 Vermont Department of Health Dental Survey, the Springfield service area ratio of full-time dentists to the population was 32 lower than Vermont (36.6). However, 29% of Springfield service area dentists were near retirement age (over 55 years) in 2003, similar to 32% statewide. According to the data all area dentists are taking new patients, but 28% are not accepting new Medicaid patients, much lower than in Vermont (42%). **(See Table 80)**

OTHER DATA SOURCES

Springfield Hospital Environmental Scan 2003 – 2004

In Vermont, according to the 2003 Vermont Health Workforce Assessment, hospitals reported 1779 staff nursing positions budgeted, with 1567 of those positions filled. This translates to a 12% vacancy rate in Vermont, which nears the national average of 13%.

In the same survey, 50% of the hospitals report difficulty filling nursing positions in ICU, OR, ED, and OB. OR positions take on the average of 15 weeks to fill, while ICU positions are reported to take up to 22 weeks.

In Vermont, as of February 2003, 12 hospitals employed traveling nurses to fill vacancies (7% of positions). For eight of the hospitals employing travelers, the statewide cost was \$9.4 million dollars, or \$1.8 million dollars per hospital.

2003 Market Assessment Study

Local community physician need was estimated using population-based physician needs assessment models. Table 1 in **Appendix C** summarizes the predicted physician needs by specialty for five planning models. As this shows, there can be some variation in predicting physician needs based on the model utilized. For this analysis, the median value among these models was used to assess each community hospital's physician need.

The median need assessment values were applied to the Primary Care Service Area (PCSA) population of Springfield Hospital. Although occasionally staffing plans will utilize the primary and secondary population, because of the proximity of the Hospital to other hospitals and to Dartmouth-Hitchcock as well as the overlapping towns considered in secondary service areas, for analytic clarity we limited the service area population definition only to towns comprising primary service areas. Table 2 in **Appendix C** contains a listing of each hospital's Primary Care Service Area (PCSA) population.

Each community completed a roster of physicians by specialty practicing in their respective service areas. For analytic purposes, we assumed that availability four or five days per week was the equivalent of one FTE. **Appendix C** contains methodology details.

By applying the population based needs assessment to the Primary Care Service Area (PCSA) population and comparing the resulting predicted physician need to the actual physician supply, we determined specialty areas where a shortage or oversupply existed. Oversupply was determined if a community had at least .5 FTE of surplus physician capacity. Moderate shortage was determined if community had greater than .5 FTE of additional need and significant shortage was determined if community had 1.0 FTE or greater of additional physician need. Table 5 in **Appendix C** contains the assessment summary of surplus and shortage.

The Market Assessment for the Springfield service area found that when the population-based physician needs assessment models were applied to the Springfield area Primary Care Service Area (PCSA) population, there was a surplus of adult primary care physicians, a moderate shortage in Cardiology, Dermatology, ENT, and Urology, and a significant shortage in Ophthalmology. Results were the same using the Hospital's self defined service area.

Hospital Joint Leadership Committee

- The age of nurses in the workforce, their projected 5-year retirement, and current turnover rate creates a “weak bench” of nurses in the workforce and “intellectual dilution” in the Hospital. This is the number one issue on physicians' list of unmet needs.
- **Pharmacy consults** to hospitals are “a problem,” however, a statewide resource could address this issue.
- **Infection control** expertise is needed locally and could possibly be provided by a statewide resource.

COMMUNITY INPUT

Physician Input

- At Springfield, there is reportedly a shortage of nurses and a perceived high turnover rate. These negatively affect staffing on the floors and patient care and, very crucially, from time to time result in the inability to admit patients. Numerous participants expressed their frustrations with this situation and noted the negative impact this has on patient perceptions and the extra burden this creates for the physicians (and others) in arranging the smooth transfer of a patient to another facility. (Note: While staffing is always a concern and the hospital is periodically closed for further admissions due to staffing constraints, Springfield Hospital's nurse vacancy and nurse turnover rates are both relatively low and declining.)
- Specifically, in the case of pediatrics, some frustration was expressed that on many occasions the nursing staff and / or respiratory therapy staff are uncomfortable in accommodating a pediatric admission for various reasons, therefore requiring transfer elsewhere. To address this, it was reported that two of the pediatricians are exploring this situation with the goal of developing proposed solutions for the future.

PRIORITIES

Health Resource Priorities

- Expand retention and training of health care providers
- Increase promotion of health care careers

HEALTH CARE SERVICES

OTHER DATA SOURCES

Springfield Hospital Environmental Scan 2003 – 2004

Financial Threats to Springfield Hospital include the following:

- Loss of Geographic Wage Reclassification in 2005, a component of the reimbursement formula administered by Medicare, will result in a net loss of \$700,000, while providing the same level of services. However, it is possible the Hospital could regain this classification at a future date.
- Potential future loss of Rural Health Clinic status
- Continued upward pressure on malpractice insurance and workers' compensation premiums and additional requirements to fund pension expenses

Springfield Hospital Critical Access Hospital Conversion Feasibility Analysis

Long-Term Care - This report uses a broad definition of nursing home, based on the definition used by the NCHS (National Center for Health Statistics) for its NNHS (National Nursing Home Survey). This definition includes nursing home facilities with at least three beds that routinely provide nursing care.

Indicators for the number of residents who will need nursing home care were obtained from The Guide to the Nursing Home Industry. The nursing home discharge rate for the Northeast Region of the United States was obtained from the 1997 NNHS done by the NCHS. A target occupancy rate of 95% was then calculated by dividing the number of beds needed by 95% in order to allow for overlap and fluctuations of need. As shown in **Figure 22**, these calculations result in a prediction of 302 service area residents needing nursing home care and a minimum of 284 nursing home beds needed to accommodate them.

Figure 22: Need for Nursing Home Care

Service Area Population >65	5,878
Residents >65 Rate for Nursing Home Care/1,000	51.4
Estimated Residents Needing Nursing Home Care	302
Discharge Rate per 100 Beds	112
Discharge Rate per Bed	1.12
Beds Needed for Population	270
Beds Needed at 95% Occupancy	284

Sources: For discharge rates-NCHS, Advance Data, 1997 National Nursing Home Survey, Northeast Region and for users per 1,000-The Guide to the Nursing Home Industry, Vermont, Statewide Statistics, 2000

Based upon information provided by Springfield Hospital for the November 2001 CAH Conversation Analysis, there are 381 nursing facility beds available in the Springfield Hospital service area; therefore, the supply of long-term care beds appears adequate for the present and immediate future.

(Note: A community member stated that there are 188 licensed nursing home beds in the area: 30 at McGirr’s, 56% at Gill Odd Fellows and 102 at Springfield Nursing Home.)

Predicting the long-terms need for nursing beds is complicated by many factors including the “graying” of the populations and the increasing number of elderly choosing home care and assisted living situations. In any event, the current supply of nursing home beds appears adequate particularly since Springfield Hospital has not been experiencing difficulty in obtaining nursing home placements even without the hospital participating in the swing-bed program.

Home Health - Home health placements allow for earlier discharge and contribute to preventing re-admission to acute care facilities. As shown in **Figure 11**, there are 5,878 service area residents are over the age of 65. This population is particularly dependent on the availability of home health and hospice care.

Figure 11: Service Area Population

Area	County	0 to11 (Pediatric)	12 to 18 (Adolescent)	19 to 64 (Adult)	65+ (Elderly)	Total
Andover	Windsor County, VT	65	40	302	110	517
Athens	Windham County, VT	38	27	247	25	337
Baltimore	Windsor County, VT	56	15	191	23	285
Cavendish	Windsor County, VT	197	105	864	269	1,435
Charlestown	Sullivan County, VT	742	502	2,833	672	4,749
Chester	Windsor County, VT	435	319	1,795	495	3,044
Grafton	Windsor County, VT	87	37	393	117	634
Landgrove	Windham County, VT	12	9	62	19	102
Londonderry	Bennington County, VT	250	154	1,021	284	1,709
Ludlow	Windham County, VT	307	245	1,436	461	2,449
Peru	Windsor County, VT	68	54	255	79	456
Rockingham	Windham County, VT	764	647	3,073	825	5,309
Springfield	Windsor County, VT	1,191	1,043	5,121	1,723	9,078
Walpole	Cheshire County, VT	564	379	2,006	645	3,594
Weston	Windsor County, VT	69	50	359	131	609
Service Area		4,845	3,626	19,958	5,878	34,307
Service Area Percent		14.1%	10.6%	58.2%	17.1%	100%
New Hampshire		201,759	124,345	761,643	148,039	1,235,786
New Hampshire Percent		16.3%	10.1%	61.6%	12.0%	100.0%
Vermont		93,679	62,927	374,926	77,295	608,827
Vermontg Percent		15.4%	10.3%	61.6%	12.7%	100%

According to the *Health Care Financing Review, 1997 Statistical Supplement*, the number of users of home health services in an area can be predicted at a rate of 122 per 1,000 population greater than age 65. Since 5,878 residents of the service area are over the age of 65, the predicted annual users of home health care is 717. To estimate, number of annual users was multiplied by the Vermont average number of visits per patient, resulting in a prediction of 28,680 annual home health visits. The results of these calculations are shown in **Figure 23**.

Figure 23: Predicted Home Health Users and Visits

Population >65	5,878
Users per 1,000 Population >65	122.0
Annual Home Health Users	717
Vermont Average Home Health Visits per Patient	40
Estimated Home Health Visits	28,680

Source for users per 1,000 population - DHHS, HCFA, Office of Research and Demonstrations, Health Care Financing Review, 1997 Statistical Supplement, Table 48, Page 128, CY 95 data. Source for average visit/patient-health Care Financing Administration, Office of Strategic Planning, 2002 Data Compendium, Medicare Home Health Agency Utilization by State, CY 2000

Currently the VNA (Visiting Nurse Association) of Vermont/New Hampshire, located in White River Junction, Vermont, is the primary provider of home health services to the Springfield Hospital catchment area. To a lesser extent the area is also serviced by Healthcare, Hospice and Community Services in Charlestown and Keene, New Hampshire. While it is beyond the scope of this analysis to determine the number of current home health visits provided to the Springfield

Hospital service area population to compare to estimated need, such a study could identify opportunity for network development that would aid Springfield Hospital....

Hospice Care - A similar process was used to predict annual users and visits for hospice services. The *Health Care Financing Review, 2001 Statistical Supplement*, indicates that eight of each 1,000 Medicare recipients will become hospice users each year. The CMS Data Compendium lists Vermont hospice days at a rate of 41 per patient. Applying these rates to the elderly population of the Springfield Hospital service area results in an estimated 47 hospice users and 1,927 hospice visits per year, as shown in **Figure 24**.

Figure 24: Predicted Hospice Users and Visits

Population >65	5,878
Users per 1,000 Population >65	8
Annual Hospice Users	47
Vermont Average Hospice Visits per Patient	41
Estimated Hospice Visits	1,927

Sources for users - CMS, 2001 Medicare and Medicaid Statistical Supplement to the Health Care Financing Review, Table 54 CY 1999 and for days per patient-CMS, Medicare Hospice Utilization by State, CY 2000.

VNA of Vermont/New Hampshire provides hospice services in the Springfield Hospital service area. Similar to with home health services, availability of hospice placements is important in managing census limitations.

Transportation - Within the service area there are four providers of ambulance services; two (LeFevre Ambulance and Springfield Ambulance) are staffed by paid employees and two (Chester Ambulance and Londonderry Ambulance) are staffed by volunteers. Both Springfield Ambulance and LeFevre Ambulance also provide non-emergency transportation. The opportunity exists for Springfield Hospital to develop arrangements with these providers that will satisfy the requirements of the state Rural Health Plan.

Hospital Joint Leadership Committee Input

- **End of Life Care** - There is a need to provide end-of-life care in the hospital through collaboration with hospice, in accordance with patients' needs and wishes. Currently the community has in-home hospice and VNA services. An ethical plan of services within the scope of the hospital should be explored.
- **Hospital Facilities**
 - Freeman French Freeman is conducting Master Facility Plan that should be complete by February and the CON process will begin in March 2005. The process is being driven by input from Board members, physicians, managers, employees, and patient comments; coupled with the strategic vision and volume projections of the hospital.

- Per the recommendations of the Safety Committee, a HAZMAT storage shed will be constructed on level A, to enhance the safety of storing hazardous materials on site.
- Discussions are underway to locate a space to house the radiology films onsite for prompt comparison and final reads. (Note: A new file room was constructed.)
- Parking is needed. (Note: The Hospital has currently added 15 spaces [need to be paved] and plan on adding additional parking in May 2005.)
- A room for “more home like delivery for low risk births” is needed; OB needs facility and staff (female midwives, female OB/Gyn, i.e.)
- Modernized Day Surgery and Endoscopy Units are needed and being explored through the Master Facility Plan.
- Privacy rooms in the ED are needed, as well as private rooms in the hospital and both are being explored through the Master Facility Plan.
- “Geriatric friendly” services should be developed in the hospital, including alarms, bracelets and Med/Surg observation area
- Facility space is needed for observation in the ED.
- Physical space and nursing resources are needed for flexibility to “surge up” for vacationers
- An Education and Wellness Center should be explored to “broaden scope of hospital mission”
- Ludlow Health Center needs to be expanded to accommodate the current and projected influx of patients due to the expansion of Okemo and the closing of Rutland Regional Medical Center’s Ludlow Clinic.
- Windham Center expansion is being explored to create private rooms, to eliminate the census inhibiting gender and diagnosis issues that exist with the current room configuration. The project may also include additional beds to allow for expansion of the Windham Center’s treatment capacity.

▪ **Hospital Technology**

Currently, Springfield Hospital is addressing the following technological issues (source also the *Springfield Hospital Environmental Scan – 2003 – 2004*):

- Multislice CT – A new 16-Slice CT Scanner was recently installed to meet the needs of our patients and our medical community. This technology is comparable to the CT machines of tertiary hospitals and large medical centers.

- Discharge **Instructions** – Software is needed to reduce the hours physicians spend transcribing and re-transcribing lists of patients’ medications.
- **CPSI Hospital Information System** – is being examined to determine its efficiency and effectiveness.
- **Electronic Medical Records**
 - There is a need to “build a system of care.” Computer Provider Order Entry enhances patient safety and should be part of a “fully integrated Electronic Medical Record,” for both employed and non-employed physicians.
 - Rural Health Center requirements and JCAHO accreditation mandates that a problem list be in the patient chart and accessible to any employed physician, including access to the patient health record during an ED visit.
- **Transportation**
 - Funding of Transportation is an unmet need, especially for adult day care and specialty care visits. Home visits, “silver tech” monitoring of seniors in their homes and Telemedicine at Dartmouth-Hitchcock Medical Center (not yet available) could be possible solutions.
 - Dr. Hertford, a Family Practitioner, makes private home visits.
 - The availability of transportation can change the need for primary care physicians

COMMUNITY INPUT

Legislative and Hospital Board Needs Assessment Meeting

- **Hospital Billing** - There is confusion about hospital billing. (Note: Beginning in January 2005 a new “patient friendly” bill will be implemented.)
- **Prescription Drugs**
 - The cost of pharmaceutical drugs, especially for terminal and chronic patients is a national and local issue. People have to choose between the cost of insurance to obtain needed drugs or paying for their mortgage.

Key Leader Input

- **Rating Very High Priorities** - Among consumers answering, the need to increase and/or expand the following services, by the proportion of those rating it a “Very High Priority” rating are noted below:
 - Technology at Springfield Hospital 65%

○ Home Care	58%
○ Services at Springfield Hospital	57%
○ Facilities at Springfield Hospital	57%
○ Elder Care	50%
○ Rehab	45%
○ Hospice	45%
○ Health Education	42%
○ School Health	27%
○ Family Planning	25%
○ Mental Health	42%

▪ **Facilities and Technology**

- Keep up with the latest. (If you have) more facilities and technology, people won't travel to DHMC and Fletcher Allen. It is great to have state-of-the-art equipment. I am impressed with Springfield Hospital Radiology Department. (Note: The Hospital is deploying a state-of-the-art spiral CT Scan and has purchased and will be implementing a dual-head gamma camera for nuclear medicine studies.)
- A new drug is needed to help people with Parkinson's disease. Defibrillators on the athletic fields are needed.
- There have been some new cancer drugs that have come out recently that were available here on a very timely basis for me.

▪ **Elder Care**

- The growing, aging population will make access to elder services an issue. Elder services need expansion - more in-home care. more nursing homes. In-home care or visiting medical staff will be needed. Needs are met now but aging population is a concern.
- My recent experience with my dad was at times frustrating trying to find out what was available and how to get access to the services.
- Need more nursing homes.
- Expand Adult Day into catchment area.
- Earlier diagnosis of Alzheimer's is needed.

▪ **Rehab** - Good practice in Ludlow. Ludlow has high demand due to resort community and skiers.

▪ **Home Care**

- Falling short. Need to pay more to get quality staff.

- Not enough in Ludlow.
- Very much needed. I think the visiting nurses do a good job at this.
- Better transition from the hospital is needed.
- **Hospice** - Growing, aging population will make this an issue. Not enough services for the demand. Needs to be expanded because of the cost of end of life care. More education is needed on end of life issues.

Physician Input

- **Services Needed**
 - 24/7 ultrasound coverage
 - A Gastroenterologist is needed
 - Make services more kid friendly.
 - ERCPs are needed. More nurses are needed, enough to staff beds.
 - Ultrasound and Bone Density are needed.
- **Facilities**
 - Additional ambulatory space is needed in a number of areas, including radiology and the emergency department, which has reportedly clearly outgrown its space.
 - Another OR with anesthesia and staff to support it is needed; the OR is inadequate.
 - Child friendly pediatric inpatient rooms are needed.
- **Technology Needs**
 - Paperless medical records, including outpatient. Electronic and computerized medical records and user friendly, time saving charting software. (Note: Springfield Hospital and Network Management Services (NMS) are currently collaborating on this project.)
 - PACS system in Bellows Falls. Computer system is very poor at supporting both patient care and financial statistical functioning. (Note: This will be complete by January 2005.)
 - Esophageal leads for assessment of arterial arrhythmias
- **Rehab** - Better OT coverage (for hand/wrist conditions) is needed.

- **Home Care** - Expanded eligibility for VNA services is needed.
- **Hospice** - Make the hospice system more accessible. In-hospital hospice is needed.
- **Priorities** - Inpatient bed availability; price controls on very expensive drugs; Physician retention and more nursing staff.

PRIORITIES

Health Resource Priorities

- Explore the need for a second adult day care site
- Conduct an elder care population needs assessment
- Increase funding for assisted living and independent living programs
- Install a fixed MRI
- Provide X-Ray in Bellows Falls
- Develop a CPSI Hospital Information System
- Implement Discharge Instruction Software
- Provide 24/7 Ultrasound
- Provide Bone Density Testing
- Implement Electronic Medical Records
- Implement Patient Friendly Billing
- Develop End-of-Life care, in the Hospital
- Expand Rehab services
- Expand nursing staff
- Increase parking
- Create a room for home-like deliveries of low risk births
- Provide more “kid friendly” facilities, including inpatient rooms
- Modernize the Day Surgery and Endoscopy Units
- Create additional ambulatory space in radiology and ED (privacy, observation)
- Build another OR (with anesthesia and staff)
- Build an Education and Wellness Center
- Expand Ludlow Health Center
- Expand Windham Center
- Expand inpatient bed availability