Care Management Inventory Survey Results
Report to CMCM Work Group
March 9, 2014

The following report presents data from the care management survey, the highlights of which were presented to the Vermont Health Care Innovation Project (VHCIP) Care Models and Care Management (CMCM) Work Group on September 11, 2014 and on February 5, 2015. In developing this report, Bailit Health focused on detailing the data that were included in the CMCM Work Group presentation. The data are grouped into topic categories for easier understanding.

I. Description of Responding Organizations

Tables 1 through 5 provide descriptive information about the responding organizations. Key highlights include:

- 42 organizations responded; reported results reflect the responses from those organizations.
- The predominant respondents were Community Service Providers (33%), Blueprint Community Health Teams (26%), and Health Care Providers (21%).
- Of the nine respondents reallocated from "Others" to specific respondent categories, four were moved into the Community Service Provider category. Two each were moved to the Health Plan category and the State Agency category. One was moved into the Health Plan category.
- 31% of the respondents reported having a statewide service area.
- All responding ACOs, State Agencies and Health Plans reported providing services in all counties (organizations were instructed that if they selected "Statewide," there was no need to check individual counties).
- Caledonia (5%), Essex (5%), Grand Isle (5%), Lamoille (5%) and Orleans (25%) Counties had the fewest respondents.

It should be noted that no home health agencies completed the survey, so the results may understate the degree of care management provided and the degree of cross-organizational coordination that is occurring in the state. The VNAs of Vermont provided the following narrative description of home health agency activity: "The home care agencies provide extensive community-based care management across the health care continuum including prevention and wellness, acute care, chronic and long term care, and end-of-life care as the majority of home care patients live with one or more chronic conditions. Home care agencies have close working relationships with other providers including physicians, hospitals, nursing homes, rehab. facility, behavioral health providers and federally qualified health centers. Their care managers help with transitions from hospital to home and nursing home to home."

Table 1 below summarizes the number and type of responding organizations. All who responded "Other" were re-categorized as described above and as shown in Table 2.

Table 1: Number and Type of Responding Organizations		
Type of Organization	**Number of Respondents**	**Percent of Total Respondents**
ACO	2	5%
Blueprint Community Health Team	11	26%
Health Plan	3	7%
State Agency	3	7%
Community Service Provider	14	33%
Health Care Provider	9	21%
Other	0	0%
Total	**42**	**100%**

Note: Vermont's third ACO, Community Health Accountable Care (CHAC), elected to have its member providers respond on its behalf, rather than developing one aggregated ACO response. The FQHCs that responded as participants in CHAC were categorized as Health Care Providers.

The following table summarizes the responding organizations by organizational type.

Table 2: List of Responding Organizations by Type of Organization		
Responding Organizations	**Organization Name**	**Contact Person Name**
ACOs	Accountable Care Coalition of the Green Mountains (ACCGM)	Jill McKenzie
	OneCare Vermont	Vicki Loner
Blueprint Community Health Teams	Barre HSA Community Health Team	Patrick Clark
	Brattleboro Memorial Hospital Community Health Team	Wendy Cornwell
	CHT for Rutland County HSA	Mary Lou Bolt
	Fletcher Allen Health Care	Pam Farnham
	Gifford Medical Center	LaRae Francis
	Mt. Ascutney Hospital and Health Center	Jill Lord, RN
	North Country Hospital Blueprint HSA	Julie Riffon
	Springfield Medical Care Systems	Joshua Dufresne
	St Albans HSA Blueprint Program	Candace Collins
	Bennington Hospital Service Area/United Health Alliance	Dana Noble
	VT Blueprint for Health Middlebury HSA	Susan Bruce
Community Service Providers	Cathedral Square/SASH	Nancy Eldridge
	Champlain Community Services	Elizabeth Sightler
	Counseling Service of Addison County	Robert Thorn
	Families First	Julie Cunningham, LICSW
	Healthcare and Rehabilitation Services of Southeastern Vermont (HCRS)	Alice Bradeen
	Howard Center	Catherine Simonson
	Lamoille County Mental Health Services	Jennifer Stratton
	Lincoln Street Inc.	Cheryl Thrall, Exec. Dir.
	Northwestern Counseling & Support Services	Amy Putnam
	United Counseling Service	Ralph Provenza

Table 2: List of Responding Organizations by Type of Organization		
Responding Organizations	**Organization Name**	**Contact Person Name**
	Upper Valley Services	William Ashe
	Washington County Mental Health Services	Mary Moulton
	Clara Martin Center	Melanie Gidney
	Community Care Network/Rutland Mental Health Services	Daniel Quinn
Health Care Providers	Community Health Centers of Burlington	Jonathan Bowley
	Community Health Services of Lamoille Valley	Corey Perpall
	Invest EAP / VTHealthEngage	Steve Dickens
	Little Rivers Health Care, Inc.	Gail Auclair
	Mountain Health Center	Martha
	Mountain View Center	Judy Morton
	Northeastern Vermont Regional Hospital	Laural Ruggles
	Northern Tier Centers for Health (NoTCH)	Unknown
	Otter Creek Associates & Matrix Health Systems	Melissa Bailey
Health Plans	BCBSVT	Audrey Spence
	DVHA/VCCI	Eileen Girling
	MVP Health Care	Linda Johnson, Dir. Population Health Mgmt
State Agencies	Vermont Department of Health - Alcohol and Drug Abuse Programs	Kerrie Taylor
	Ladies First: Breast and Cervical Cancer and Heart Health Screening Program	Nicole Lukas
	Vermont Department of Disabilities, Aging and Independent Living (DAIL)	Jen Woodard

The following table represents changes that were made, in consultation with DVHA and GMCB staff, to the categorization of 'Organization Type'.

Table 3: List of Re-categorized Agencies by New Category Designation			
Organization Name	**Contact Name**	**Identified 'Org Type' by Organizations**	**Changed 'Org Type' for Consistency in the Analysis**
Cathedral Square/SASH	Nancy Eldridge	Other	Community Service Provider
Champlain Community Services	Elizabeth Sightler	Other	Community Service Provider
Howard Center	Catherine Simonson	Other	Community Service Provider
Northwestern Counseling & Support Services	Amy Putnam	Other	Community Service Provider
Northeastern Vermont Regional Hospital	Laural Ruggles	Other	Health Care Provider
Otter Creek Associates and Matrix Health Systems	Melissa Bailey	Other	Health Care Provider
DVHA/VCCI	Eileen Girling	Community Service Provider	Health Plan
Vermont Department of Health - Alcohol and Drug Abuse Programs	Kerrie Taylor	Community Service Provider	State Agency
Ladies First: Breast and Cervical Cancer and Heart Health Screening Program	Nicole Lukas	Health Plan	State Agency

Tables 4 and 5 present the responding organizations' data on service areas.

Table 4: Respondent Organization's Service Areas by Type of Organization							
	Type of Organization						
County	ACO	Health Plan	State Agency	Blueprint Community Health Team	Community Service Provider	Health Care Provider	All Organization Types
Statewide	100%	100%	100%	9%	7%	33%	31%
Addison County				18%	21%	11%	14%
Bennington County				18%	14%	0%	10%
Caledonia County				0%	0%	22%	5%
Chittenden County				9%	14%	11%	10%
Essex County				9%	0%	11%	5%
Franklin County				9%	14%	11%	10%
Grand Isle County				0%	14%	0%	5%
Lamoille County				0%	7%	11%	5%
Orange County				9%	36%	11%	17%
Orleans County				9%	0%	0%	2%
Rutland County				9%	14%	11%	10%
Washington County				9%	36%	0%	14%
Windham County				18%	21%	0%	12%
Windsor County				27%	21%	0%	14%
Count of Organizations Reporting	2	3	3	11	14	9	42

Table 5: Responding Organizations by Geographic Area		
County	# of Organizations	% of Responses
Statewide	**13**	**31%**
Addison County	6	14%
Bennington County	4	10%
Caledonia County	2	5%
Chittenden County	4	10%
Essex County	2	5%
Franklin County	4	10%
Grand Isle County	2	5%
Lamoille County	2	5%
Orange County	7	17%
Orleans County	1	2%
Rutland County	4	10%
Washington County	6	14%
Windham County	5	12%
Windsor County	6	14%

II. Care Management Services Provided by Responding Organizations

The following are the definitions of care management services that the responding organizations were asked to use to categorize the type of services they provided. The tables and bar charts within this section of the report categorize responses using these care management definitions.

- **High Risk Management** is the deliberate organization of care activities for high risk individuals, designed to improve their health status and reduce the need for expensive services. High risk people may include individuals experiencing serious illness, high utilization of health care services and/or transitions in care (e.g., changes in setting, service, practitioner, or level of care).
- **Special Services Management** is the deliberate organization of care activities for a specified population requiring ongoing management (other than high risk individuals and those receiving disease management services), for an undetermined time frame. Examples of specified populations include people with mental health or substance abuse needs, and children with special health needs.
- **Episodic Pathways** are standardized care processes used to promote organized and efficient care based on evidence-based practice for a specific group of individuals with a condition that is characterized by a predictable clinical course with a limited time frame (e.g. pregnancy, joint replacements). The interventions involved in the evidence-based practice are defined, optimized and sequenced; they are also known as clinical pathways, care pathways, critical pathways, integrated care pathways, or care maps.
- **Disease Management** is a system of coordinated interventions and communications for specific groups of people with chronic conditions for which self-care efforts can have significant impact. Disease management supports the practitioner/person relationship, development of a plan of care, and prevention of exacerbations and complications. It is characterized by evidence-based practice guidelines and strategies that empower people.
- **Post-Discharge Follow-Up** consists of a phone call or visit to discharged individuals within 48 to 72 hours of their departure from a care facility. The purpose is to ask about the individual's condition, adherence to and understanding of medication orders and other treatment orders, general understanding of his or her condition, and intent to attend follow-up appointments. Post-discharge follow-up is for individuals other than those served by High Risk Care Coordination, Special Services Care Coordination, Episodic Pathways, or Disease Management.
- **Short-Term Case Management Programs** are targeted and short term (30-60 days maximum) interventions with the goals of empowering individuals to better understand their illnesses and manage their own conditions, and coordinating care between individuals, providers and the community.
- **Utilization Management** is the set of organizational functions and related policies, procedures, criteria, standards, protocols and measures to ensure appropriate access to and management of the quality and cost of health care services provided to health plan members or other populations.

- **Prevention/Wellness Engagement** activities are interventions designed to increase engagement and activation and promote positive behavior across populations, such as obtaining preventive care, exercising regularly, and modifying dietary habits. These activities may draw on the principles of positive psychology and the practices of motivational interviewing and goal setting (e.g., health coaching).
- **Life Resource Management** involves providing resources and counseling to help mitigate acute and chronic life stressors; and may include health care as well as social and/or community services.

Table 6 and Bar Charts 1 through 6 summarize the types of care management services provided by the responding organizations. Key highlights include:

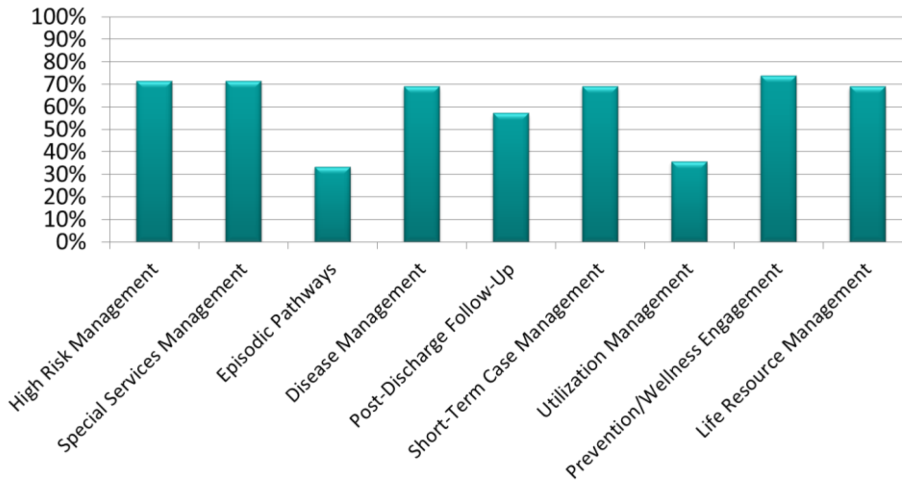
- The services most often provided by responding organizations were Prevention/Wellness Engagement (74%), High Risk Management (71%) and Special Services Management (71%).
- The services least often provided by the responding organizations were Episodic Pathways (33%), and Utilization Management (36%).
- While the other categories of responding organizations often provided the full range of care management services, ACOs focused their care management services on High Risk Management, Post-Discharge Follow-up and Prevention/Wellness Engagement, with 100% of responding ACOs providing those services.
- Special Services Management was predominantly provided by Blueprint Community Health teams (91%), State Agencies (100%) and Community Service Providers (93%)

Table 6: Percent of Responding Organizations Providing Care Management Services by Type of Organization and Type of Service

Percentage of each Category of Organization Providing Each Service	ACO	Blueprint Community Health Team	Health Plan	State Agency	Community Service Provider	Health Care Provider	All Organization Types
High Risk Management	100%	91%	100%	67%	71%	33%	71%
Special Services Management	0%	91%	0%	100%	93%	44%	71%
Episodic Pathways	0%	27%	33%	33%	57%	11%	33%
Disease Management	50%	91%	67%	67%	50%	78%	69%
Post-Discharge Follow-Up	100%	82%	67%	0%	43%	56%	57%
Short-Term Case Management	50%	100%	67%	33%	64%	56%	69%
Utilization Management	0%	27%	67%	33%	43%	33%	36%
Prevention/Wellness Engagement	100%	91%	67%	67%	71%	56%	74%
Life Resource Management	50%	91%	33%	67%	71%	56%	69%
Count of Organizations Reporting	2	11	3	3	14	9	**42**

Bar Chart 1: Percent of All Responding Organizations Providing Care Management Services by Type of Service

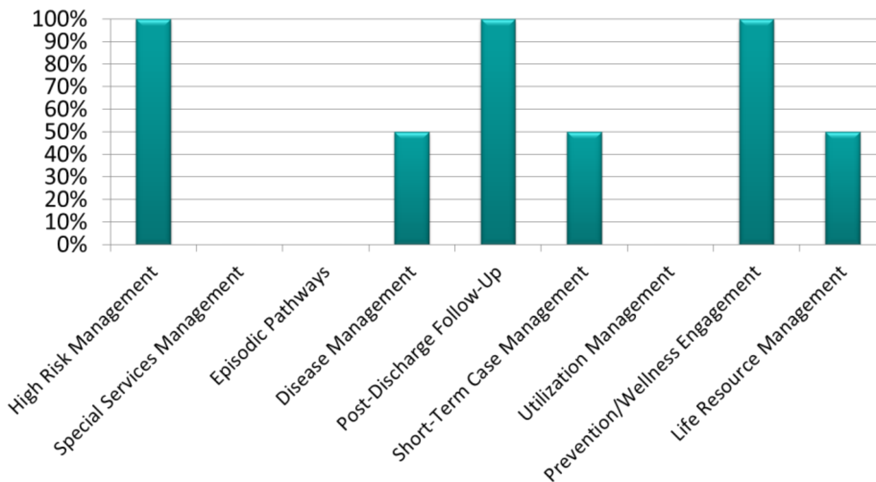
Number of Respondents: 42



Both responding ACOs indicated that they provided High Risk Management, Post Discharge Follow-up and Prevention/Wellness Engagement services. Half also provided Disease Management, Short-Term Case Management and Life Resource Management services.

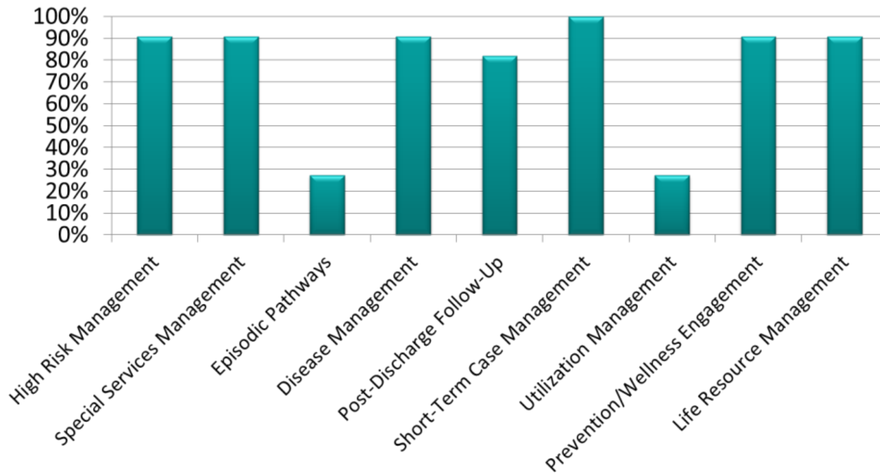
Bar Chart 2: Percent of ACOs Providing CM Services By Type of Service

Number of Respondents: 2



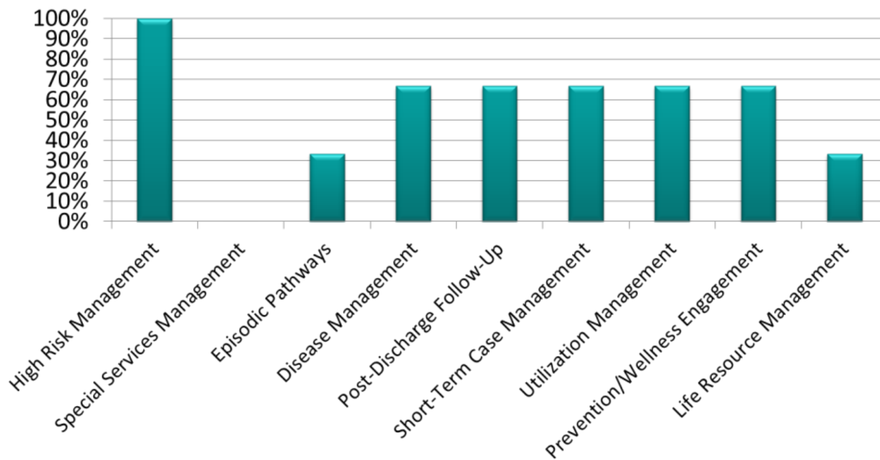
Over 80% of Blueprint Community Health Teams provided all care management services except for Episodic Pathways and Utilization Management services, with less than 30% of responding Community Health Teams providing those two services.

Bar Chart 3: Percent of Blueprint Community Health Teams Providing CM Services by Type of Service
Number of Respondents: 11



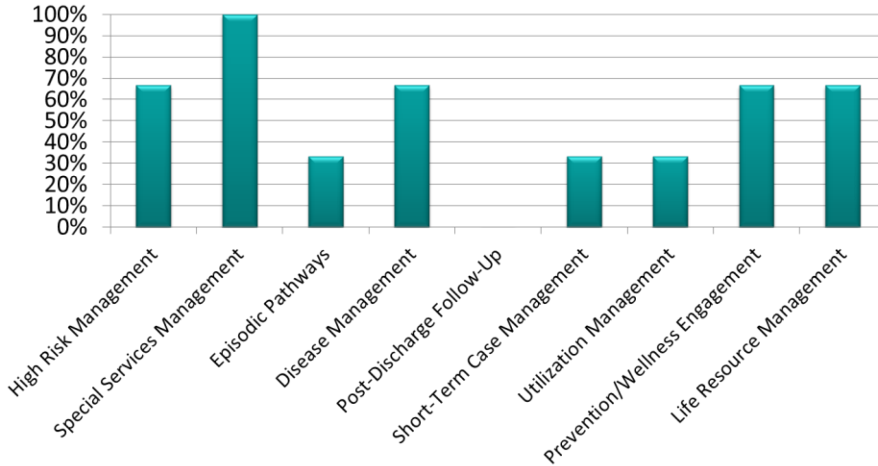
As shown in Bar Chart 4, all Health Plans provided High Risk Management, approximately 30% provided Episodic Pathways and Life Resource Management services, and none provided Special Services Management services. Almost 70% of Health Plans reported providing the remaining categories of care management services.

Bar Chart 4: Percent of Health Plans Providing CM Services by Type of Service
Number of Respondents: 3



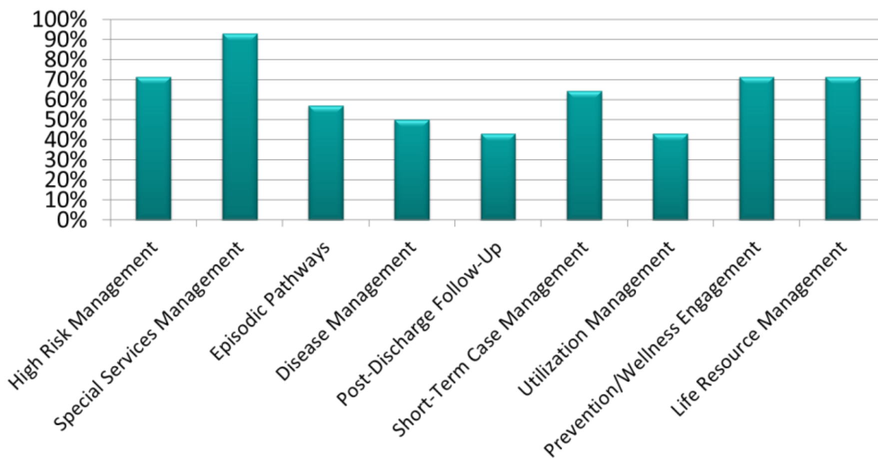
As shown in Bar Chart 5, all State Agency respondents indicated that they provided Special Services Management and over half provided High Risk Management, Disease Management, Prevention/Wellness Engagement and Life Resource Management. Approximately 30% provided Episodic Pathways, Short-Term Case Management and Utilization Management, and none provided Post-Discharge Follow-up.

Bar Chart 5: Percent of State Agencies Providing CM Services by Type of Service
Number of Respondents: 3



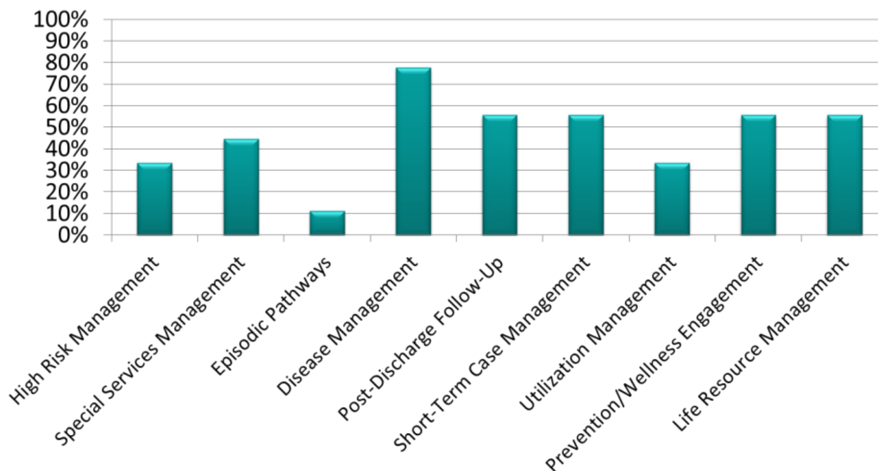
As shown in Bar Chart 6, the predominant service provided by Community Service Providers was Special Services Management. Over 50% provided all other care management services, except approximately 40% provided Post-Discharge Follow-up and Utilization Management services.

Bar Chart 6: Percent of Community Service Providers Providing CM Services by Type of Service
Number of Respondents: 14



Health Care Providers most often provided Disease Management services and least often provided Episodic Pathways services. Over half also provided Post-Discharge Follow-up, Short-Term Case Management, Prevention/Wellness Engagement and Life Resource Management.

Bar Chart 7: Percent of Health Care Providers Providing CM Services by Type of Service
Number of Respondents: 9



Tables 7 and 8 below summarize the responses when the organizations were asked to "indicate population(s) served by each Type of Care Management Service that they provide." Table 7 indicates which service for which population was provided at rates significantly higher (H) or lower (L) than the average. If the percentage of responding organizations providing a particular service to a particular population was above the standard deviation, it was noted by the use of "H" in the cell. Alternatively, if the percentage of responding organizations providing the specific service to a specific population was below the standard deviation, it was noted by the use of "L" in the cell. Table 8 includes the percentages and standard deviations used to determine if the rates were higher (H) or lower (L).

Key highlights included:

People with multiple co-morbidities received the following services at rates significantly above the average:

- High Risk Management
- Special Services Management
- Disease Management
- Short-term Case Management
- Prevention/Wellness Engagement
- Life Resource Management

People with mental health and substance abuse needs received the following services at rates significantly above the average:

- High Risk Management
- Special Services Management
- Episodic Pathways
- Disease Management
- Prevention/Wellness Engagement
- Life Resource Management

People at risk regarding social determinants of health received the following services at rates significantly above the average:

- Episodic Pathways
- Short-term Case Management
- Prevention/Wellness Engagement
- Life Resource Management

Other key highlights included:

People needing pre-natal care received the following services at rates significantly below the average:

- High Risk Management
- Special Services Management
- Disease Management
- Post-discharge follow-up
- Short-term Case Management
- Utilization Management
- Prevention/Wellness Engagement
- Life Resource Management

People discharged from skilled nursing facilities received the following services at rates significantly below the average:

- Special Services Management
- Episodic Pathways
- Short-term Case Management Programs
- Utilization Management
- Prevention/Wellness Engagement

When considering the populations being served, these patterns of services are not surprising.

Table 7: Populations Receiving Services at Rates Higher (H) or Lower (L) Than the Average For each service, rates that were significantly (at least one standard deviation) higher or lower than the average are indicated by an (H) and an (L)									
Total for All Types of Organizations (percentage)	**High Risk Mgmt**	**Special Services Mgmt**	**Episodic Pathways**	**Disease Mgmt**	**Post-Discharge Follow-Up**	**Short-Term Case Mgmt Programs**	**Utilization Mgmt**	**Prevention / Wellness Engagement**	**Life Resource Mgmt**
People with multiple comorbidities	H	H		H		H		H	H
People with rare complex and high cost conditions (e.g. lupus)	L		L						
People with cancer		L	L		L				
People with chronic conditions (e.g. diabetes, asthma, CHF, COPD)				H					
People with developmental disabilities		H							
People with MH and SA needs	H	H	H	H				H	H
People needing prenatal care	L	L		L	L	L	L	L	L
People with multiple admissions to facilities	H								
People with multiple ED visits							H		
People at risk re: social determinants of health			H			H		H	H
People discharged from acute inpatient					H				
People discharged from SNF		L	L			L	L	L	
People discharged from inpatient rehab			L						
People discharged from mental health/substance abuse facility		H	H						
People discharged from home health agencies		L							
Average	51%	44%	17%	43%	39%	46%	26%	41%	51%
Standard Deviation	12%	10%	6%	11%	9%	9%	7%	12%	11%

Table 8: Percent of Responding Organizations Providing Specific Services to Specific Populations

For each service, rates that were significantly (one standard deviation or more) above the average are in bold font, and below the average are in blue font.

Total for All Types of Organizations (percentage)	High Risk Mgmt	Special Services Mgmt	Episodic Pathways	Disease Mgmt	Post-Discharge Follow-Up	Short-Term Case Mgmt Programs	Utilization Mgmt	Prevention / Wellness Engagement	Life Resource Mgmt
People with multiple comorbidities	**67%**	**55%**	19%	**64%**	45%	**60%**	33%	**67%**	**67%**
People with rare complex and high cost conditions (e.g. lupus)	**38%**	36%	10%	38%	33%	40%	24%	33%	45%
People with cancer	40%	33%	10%	33%	29%	40%	19%	29%	43%
People with chronic conditions (e.g. diabetes, asthma, CHF, COPD)	52%	36%	14%	**57%**	38%	48%	31%	52%	48%
People with developmental disabilities	40%	**55%**	19%	36%	31%	43%	24%	45%	60%
People with MH and SA needs	**67%**	**67%**	**29%**	**55%**	45%	**55%**	31%	**60%**	**69%**
People with physical disabilities	40%	43%	14%	33%	31%	45%	19%	43%	50%
Elders needing support with ADL and/or other functional status	50%	45%	19%	38%	40%	50%	26%	43%	57%
People needing prenatal care	26%	31%	14%	19%	19%	26%	12%	26%	24%
People with multiple admissions to facilities	**64%**	48%	19%	50%	48%	52%	33%	40%	52%
People with multiple admissions to outpatient programs	48%	43%	19%	38%	36%	48%	29%	43%	45%
People with multiple ED visits	62%	45%	21%	45%	48%	50%	**36%**	38%	52%
People at risk re: social determinants of health	62%	52%	**24%**	48%	40%	**60%**	33%	**57%**	**67%**
People discharged from acute inpatient	62%	48%	19%	50%	**55%**	52%	31%	38%	57%
People discharged from SNF	40%	33%	10%	38%	40%	33%	17%	26%	43%
People discharged from inpatient rehab	45%	40%	10%	45%	38%	40%	24%	33%	45%
People discharged from mental health/substance abuse facility	62%	**57%**	**24%**	45%	48%	48%	26%	38%	55%
People discharged from home health agencies	48%	33%	14%	36%	31%	38%	19%	24%	43%
Average	51%	44%	17%	43%	39%	46%	26%	41%	51%
Standard Deviation	12%	10%	6%	11%	9%	9%	7%	12%	11%

III. Estimated Number of People Receiving Care Management Services

Organizations were asked to estimate the number of people receiving each type of service annually by selecting from a drop-down box with ranges of number of people served. To create estimates, we took the mid-value of each range to calculate the number of people served. Table 9 and Bar Charts 8 and 9 present the responses as percentages in order to demonstrate the relative values. Key findings include:

- Blueprint Community Health Teams, Community Service Providers and Health Care Providers were serving more people than ACOs, Health Plans and State Agencies, which suggests that most care management services in Vermont are being provided locally and in a de-centralized manner.
- High Risk Management, Life Resource Management and Short-Term Case Management were the three top services provided.
- Fewer people were receiving Episodic Pathways and Utilization Management services.

Bar Chart 8 depicts the percentages of people served by type of organization. The major providers of care management services among the responding organizations were Blueprint Community Health Teams and Community Service Providers. More detailed results are presented in Table 9, below.

Bar Chart 8: Estimated Percentage of All People Receiving CM Services by Type of Responding Organization

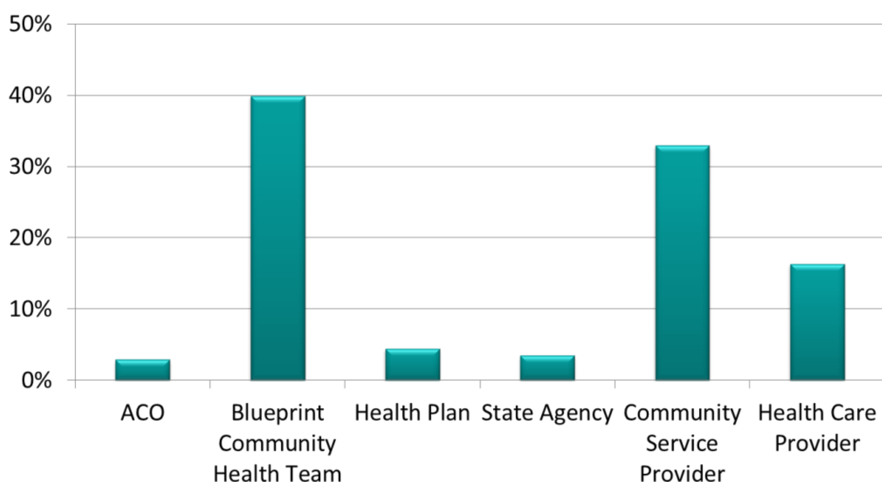
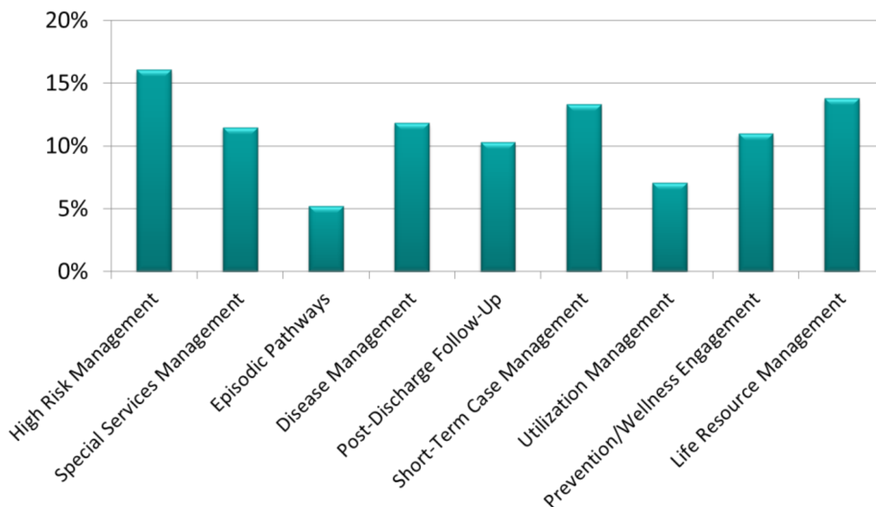


Table 9: Estimated Percentage of People being Served by Type of Organization, by Specific Services							
Care Management Category	ACO	Blueprint Community Health Team	Health Plan	State Agency	Community Service Provider	Health Care Provider	All Org. Types
High Risk Mgmt	5%	14%	41%	45%	18%	5%	16%
Special Services Mgmt	0%	12%	8%	0%	13%	11%	11%
Episodic Pathways	0%	4%	3%	0%	9%	3%	5%
Disease Management	21%	19%	3%	10%	4%	11%	12%
Post-Discharge Follow-Up	21%	12%	11%	0%	8%	9%	10%
Short-Term Case Mgmt	21%	13%	17%	10%	14%	10%	13%
Utilization Mgmt	0%	5%	0%	0%	9%	14%	7%
Prevention/Wellness Engagement	21%	8%	13%	17%	11%	15%	11%
Life Resource Mgmt	12%	13%	3%	17%	13%	21%	14%
Total	**3%**	**40%**	**4%**	**3%**	**33%**	**16%**	--

Bar Chart 9 presents the estimated percentage of people receiving care management services by type of care management service. More people were receiving High Risk Management, Short-Term Case Management and Life Resource Management. Fewer people were receiving Episodic Pathways and Utilization Management services. These estimates are generally consistent with Bar Chart 1, which summarizes the most frequently provided services, as reported by responding organizations.

Bar Chart 9: All Organization Types: Estimated Percentage of People Receiving CM Services



IV. Staffing of Care Management Services

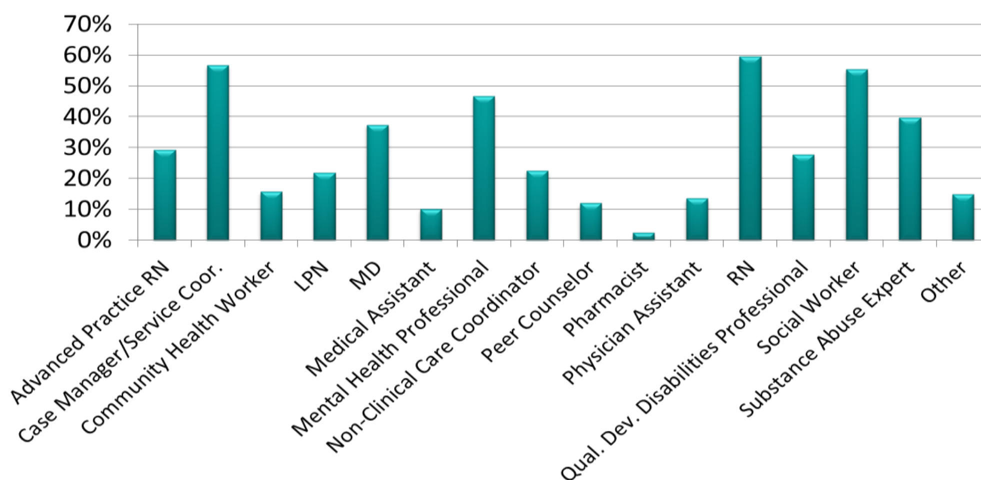
Organizations were asked to indicate the type and number (in FTEs) of staff they employ. As depicted in Table 10 and Bar Chart 10, the four staffing types with the greatest number of FTEs across all organizations responding to this question were RNs, Social Workers, LPNs and Substance Abuse Experts. Community Health Worker, Pharmacist and Physician Assistant had the smallest number of FTEs.

Table 10: Number of FTEs by Staffing and Organization Type

	ACO	Blueprint Community Health Team	Community Service Provider	Health Care Provider	Health Plan	State Agency	Total FTEs across all orgs.
Advanced Practice Registered Nurse	0	3	8	12.5	0	5	28.5
Case Manager/Service Coordinator	0	15	12	5	2	5	39
Community Health Worker	0	2.5	0	5	0	0	7.5
LPN	0	8.5	25	18	1	0	**52.5**
MD	0	0	21.5	13	3	5	42.5
Medical Assistant	0	7	5	6	0	0	18
Mental Health Professional	0	9	1	4	2	0	16
Non-Clinical Care Coordinator	0	12	10	4.5	0	12	38.5
Peer Counselor	0	0	16	0	0	5	21
Pharmacist	0	0	0	4.5	1.5	0	6
Physician Assistant	0	2	0	6	0	0	8
Qualified Developmental Disabilities Professional	0	0	24	0	0	0	24
RN	3	19.5	17	12.5	1	11	**64**
Social Worker	0	15	13	12	2.5	10	**52.5**
Substance Abuse Expert	0	14	27	1	4	0	**46**
Other	0	10.5	6	0	0	0	16.5

Responding organizations reported approximately 481 FTEs.

Bar Chart 10: Total Percentage of FTEs by Staffing Type Across All Responding Organizations



To develop information on how these personnel are used in providing care management services, we asked the responding organizations to indicate which type of staff performed nine key care management functions that have been identified by the Center for Medicare and Medicaid Innovation (CMMI). The key care management functions as identified by CMMI are as follows:

- Individual Identification and Outreach
- Needs Assessment
- Develops, Modifies, Monitors Care/Support Plan
- Referrals to Specialty Care
- Planning and Managing Transitions of Care
- Medication Management
- Individual Education
- Connections to Community/Social Service Organizations
- Team-based Care

We first analyzed the data to assess what percentage of the responding organizations actually performed the CMMI-identified key care management functions and within which service. As Bar Chart 11 and Table 11 show, respondents incorporated the key care management functions least frequently within Episodic Pathways (28%) and Utilization Management (32%), which is not surprising in light of the structure of those functions. However, it is worth noting that Post-discharge Follow-up was provided by only 51% of the respondents and was most frequently provided within the context of Planning and Managing Transitions of Care (57%) and Medication Management (57%).

The data also show that the responding organizations indicated that, on average, approximately 50% were performing each of the nine key care management functions. The only two functions that were

below 50% were Medication Management, at 48% on average, and Planning and Managing Transitions of Care at 49%. These nine key functions were most frequently incorporated into High Risk Management (67%) and Disease Management (66%), and least frequently incorporated into Episodic Pathways (28%) and Utilization Management (32%).

These data suggest that there is significant opportunity to provide additional training around key care management functions as a way to improve effectiveness of services provided, particularly Medication Management and Managing Transitions of Care. Successful implementation of these two functions may help to reduce unnecessary readmissions. Benefits are also likely to occur from focused training on effective Post-discharge Follow-up to assure that all key case management functions are incorporated.

Bar Chart 11: Percent of Responding Organizations Performing Key Care Management Functions

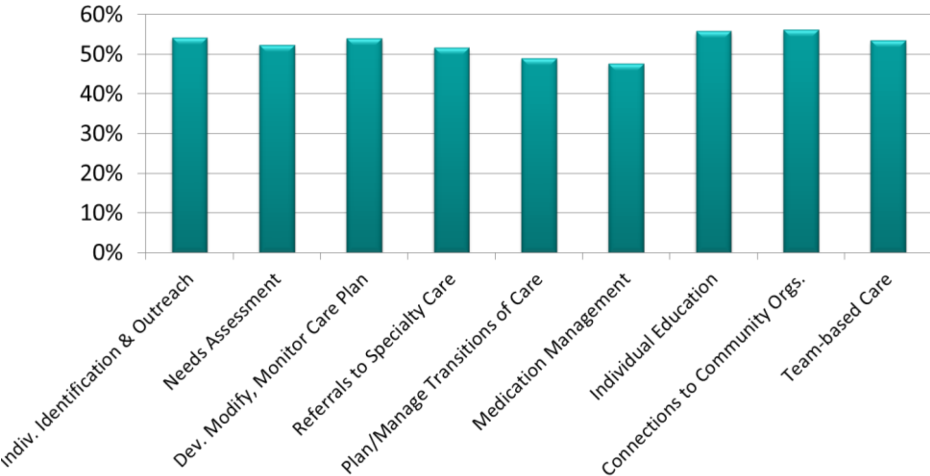


Table 11: Percent of Responding Organizations Performing CMMI Key Care Management Functions, by Type of Service										
Answer Options	High Risk Mgmt	Special Services Mgmt	Episodic Pathways	Disease Mgmt	Post-Discharge Follow-Up	Short-Term Case Mgmt Programs	Utilization Mgmt	Prevention / Wellness Engagement	Life Resource Mgmt	All CM Services
Average Percent using CMMI Best Practices	67%	61%	28%	66%	51%	63%	32%	54%	51%	**51%**
Individual Identification and Outreach	69%	57%	29%	71%	52%	60%	31%	62%	57%	**54%**
Needs Assessment	67%	62%	29%	64%	48%	64%	31%	55%	52%	**52%**
Develops, Modifies, Monitors Care/Support Plan	67%	62%	26%	69%	52%	67%	33%	55%	55%	**54%**
Referrals to Specialty Care	67%	62%	31%	67%	48%	64%	31%	45%	50%	**52%**
Planning and Managing Transitions of Care	64%	60%	29%	60%	57%	60%	31%	40%	40%	**49%**
Medication Management	69%	57%	26%	64%	57%	55%	31%	38%	31%	**48%**
Individual Education	62%	64%	21%	69%	48%	74%	33%	74%	57%	**56%**
Connections to Community/Social Service Organizations	67%	62%	29%	67%	50%	67%	31%	64%	69%	**56%**
Team-based Care	71%	67%	29%	67%	45%	62%	33%	57%	50%	**53%**
Count of Organizations Reporting	42									

We next analyzed the data to assess the types and numbers of staff used for specific care management activities defined by CMMI as best practices. RNs (62%), Case Managers/Service Coordinators (62%) and Social Workers (60%) most frequently performed the functions entitled "Develop/Modify/Monitor Care or Support Plans". Case Managers/Service Coordinators performed the function entitled "Plan and Manage Transitions of Care" slightly more frequently (60%) than RNs (57%) and Social Workers (55%). Social Workers (69%) most frequently performed "Connections to Community and Social Service Organizations," followed by Case Managers/Service Coordinators (67%) and Social Workers (55%). Table 12 presents the responding organizations' results.

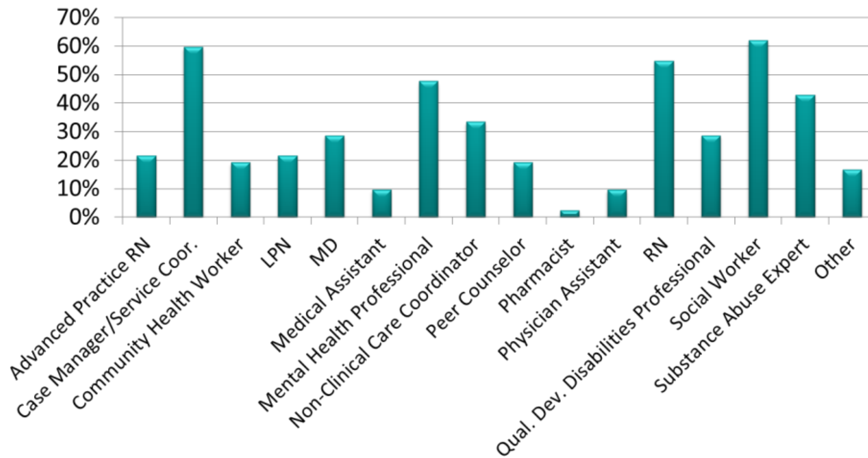
Table 12: Percentage of Responding Organizations' Use of Staff Types to Perform CMMI Key Care Management Functions

Type of Staff Used, by CCMI Key Care Management Function	Individual Identification and Outreach	Needs Assessment	Develops, Modifies, Monitors Care / Support Plan	Referrals to Specialty Care	Planning & Managing Transitions of Care	Medication Management	Individual Education	Connections to Community / Social Service Organizations	Team-Based Care	Average
Advanced Practice RN	21%	31%	31%	33%	26%	33%	31%	21%	33%	**29%**
Case Manager/Service Coordinator	60%	60%	62%	55%	60%	33%	62%	67%	52%	**57%**
Community Health Worker	19%	17%	14%	7%	12%	7%	24%	21%	19%	**16%**
LPN	21%	12%	21%	14%	7%	29%	31%	26%	33%	**22%**
MD	29%	33%	36%	40%	40%	48%	40%	29%	40%	**37%**
Medical Assistant	10%	5%	7%	7%	5%	7%	19%	14%	17%	**10%**
Mental Health Professional	48%	57%	50%	50%	40%	24%	48%	55%	48%	**47%**
Non-Clinical Care Coordinator	33%	26%	24%	14%	14%	5%	19%	33%	33%	**22%**
Peer Counselor	19%	7%	10%	5%	10%	2%	19%	19%	17%	**12%**
Pharmacist	2%	0%	0%	0%	0%	10%	5%	0%	5%	**2%**
Physician Assistant	10%	14%	12%	17%	17%	14%	12%	12%	14%	**13%**
RN	55%	64%	62%	55%	57%	57%	69%	60%	57%	**60%**
Qualified Dev. Disabilities Prof.	29%	31%	31%	26%	26%	17%	29%	31%	31%	**28%**
Social Worker	62%	67%	60%	55%	55%	19%	57%	69%	55%	**55%**
Substance Abuse Expert	43%	45%	40%	38%	43%	19%	43%	48%	38%	**40%**
Other	17%	14%	17%	12%	5%	7%	21%	19%	21%	**15%**
Count of Organizations Reporting		**42**								

Bar Charts 12 through 19 present the staffing patterns reported for each of the CMMI Key Care Management Functions.

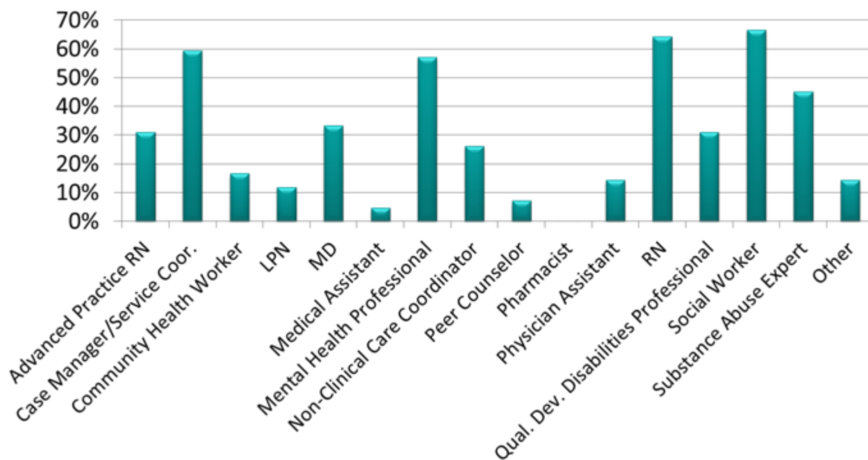
The four top staffing types most frequently doing Individual Identification and Outreach were the Case Manager/Service Coordinator, Social Worker, RN and Mental Health Professional. Least likely to provide this function was the Pharmacist.

Bar Chart 12: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Individual Identification and Outreach



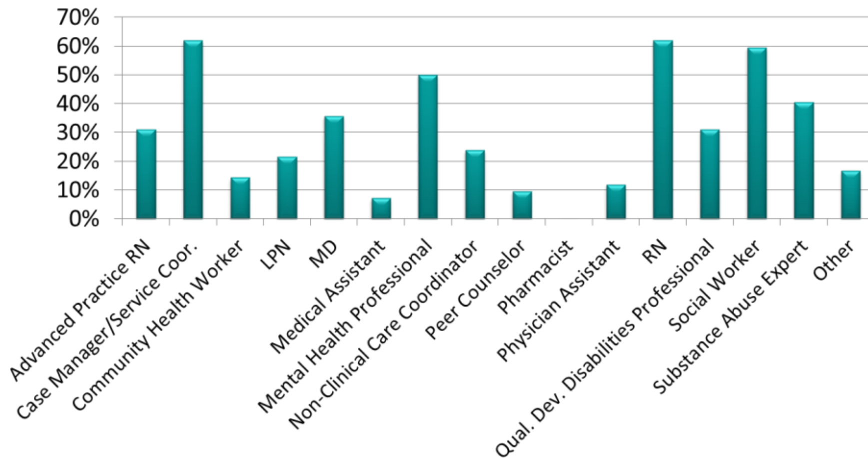
The top four staffing types providing Needs Assessments were the Social Worker, RN, Case Manager/Service Coordinator and Mental Health Professional. Least likely to provide this function was the Medical Assistant.   Pharmacists did not perform this service at all.

Bar Chart 13: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Needs Assessment



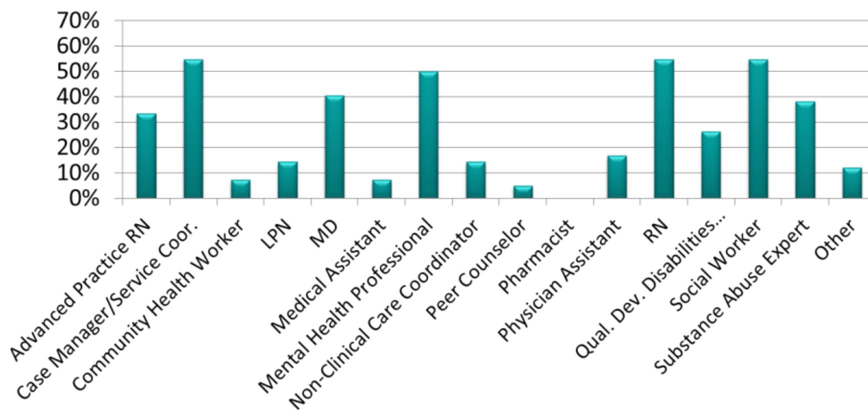
The four top staffing types most likely to Develop, Modify, Monitor Care/Support Plans were the RN, Case Manager/Service Coordinator, Social Worker and Mental Health Professional. Least likely to provide this function was the Medical Assistant. Pharmacists did not perform this service at all.

Bar Chart 14: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Develops, Modifies, Monitors Care / Support Plan



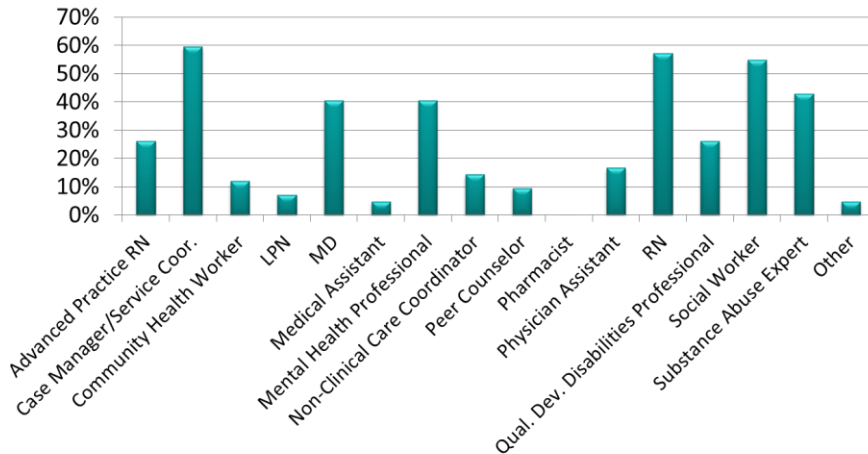
The four top staffing types most frequently making Referrals to Specialty Care were the RN, Social Worker, Case Manager/Service Coordinator and Mental Health Professional. Peer Counselors were least likely to make these referrals. Pharmacists did not perform this function at all.

Bar Chart 15: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Referrals to Specialty Care



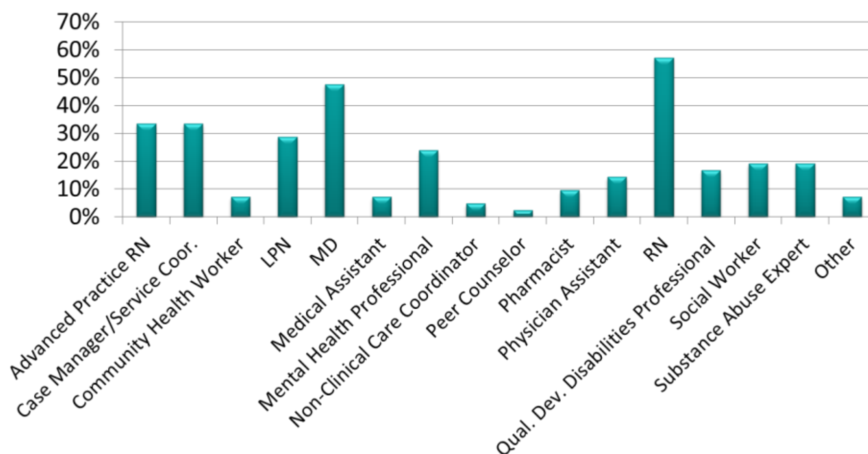
The four staffing types most frequently Planning and Managing Transitions of Care were the Case Manager/Service Coordinator, RN, Social Worker and Substance Abuse Expert. Least likely to provide this function was the Medical Assistant. Pharmacists did not perform this function at all.

Bar Chart 16: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Planning and Managing Transitions of Care



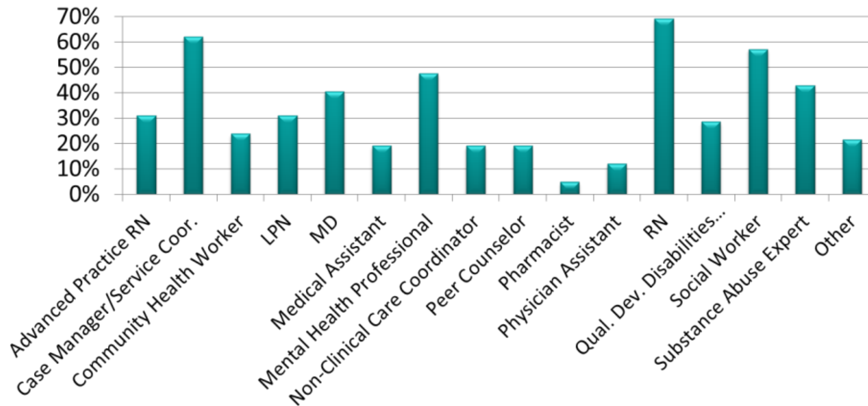
The top two staffing types performing Medication Management were the RN and MD. Pharmacists performed this function about 10% of the time. Peer Counselors were least likely to perform this function.

Bar Chart 17: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Medication Management



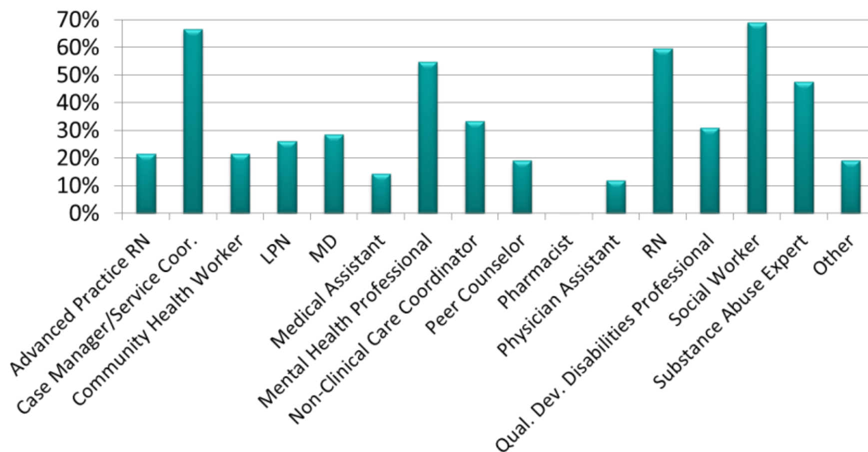
The top four staffing types providing Individual Education were the RN, Case Manager/Service Coordinator, Social Worker and Mental Health Professional. Least likely to provide this service was the Pharmacist.

Bar Chart 18: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Individual Education



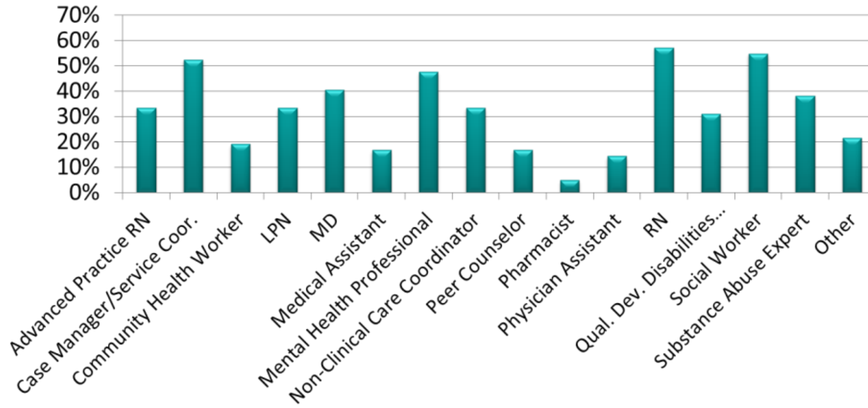
The top four staffing types performing Connections to Community/Social Service Organizations were Social Workers, Case Managers/Service Coordinators, RNs, and Mental Health Professionals. Least likely to provide this service was the Physician Assistant. Pharmacists did not provide this service at all.

Bar Chart 19: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Connections to Community/Social Service Organizations



The top four staffing types providing Team-Based Care were RNs, Social Workers, Case Managers/Service Coordinators and Mental Health Professionals. Pharmacists were least likely to provide Team-Based Care.

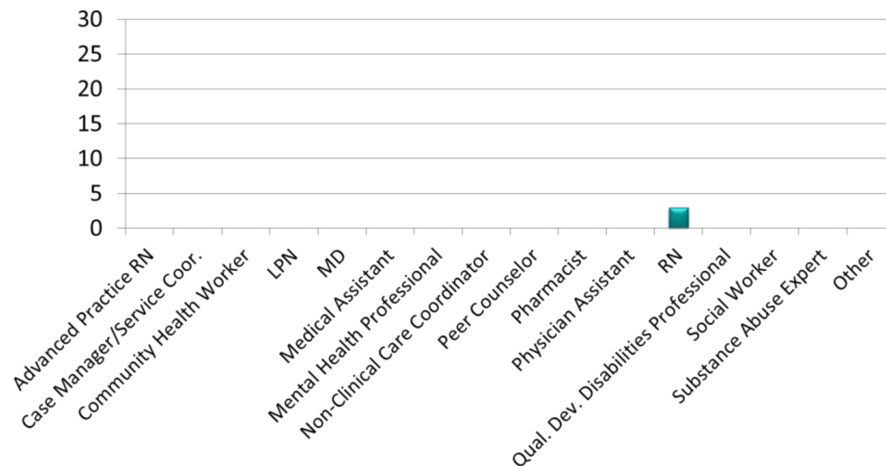
Bar Chart 20: Responding Organizations' Staffing to Perform CMMI Key CM Functions: Team-Based Care



The next several charts show staffing distributions, in number of FTEs, by type of responding organization.

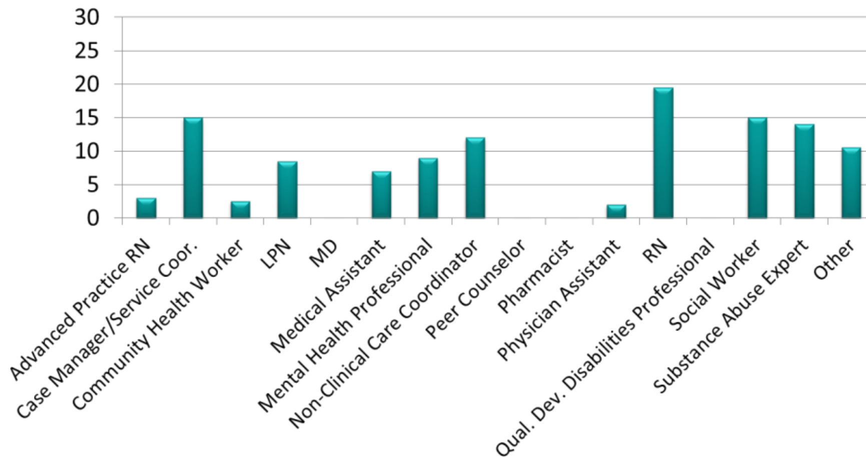
Bar Chart 21 indicates that ACOs used RNs for all care management functions.

Bar Chart 21: ACOs: Total Number of FTEs Providing CM Services, by Staffing Type



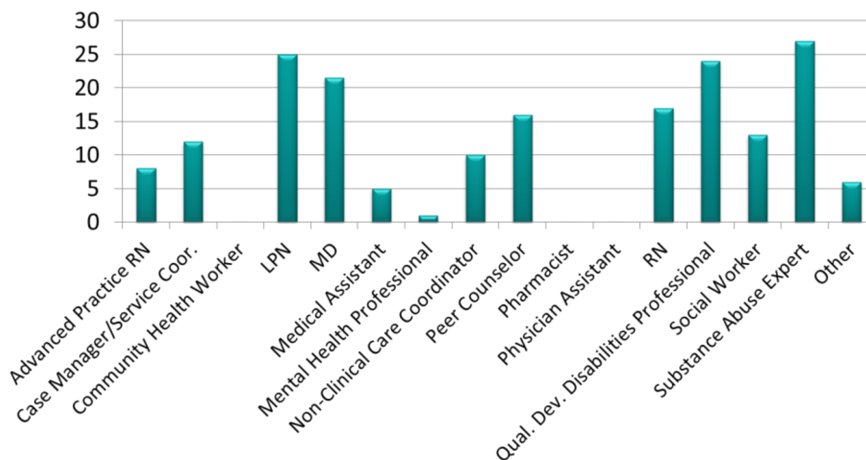
As presented in Bar Chart 22, Blueprint Community Health Teams used a range of staffing types to provide care management services, with the greatest number of FTEs being RNs, Case Managers, Social Workers and Substance Abuse Experts.

Bar Chart 22: Blueprint Community Health Teams: Total Number of FTEs Providing CM Services, by Staffing Type



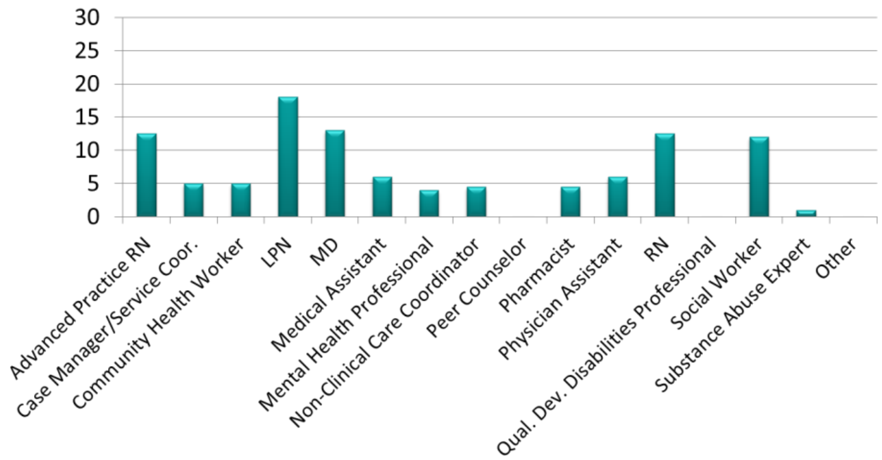
As indicated in Bar Chart 23, the staffing distribution for Community Service Providers is different from other respondents, with the greatest number of FTEs being substance abuse experts, LPNs, qualified developmental disabilities professionals, MDs and peer counselors. It is also worth noting that this organizational type was the only one that reported using qualified developmental disabilities professionals and is one of two organization types that reported using peer counselors. State Agencies also reported using peer counselors.

Bar Chart 23: Community Service Providers: Total Number of FTEs Providing CM Services, by Staffing Type



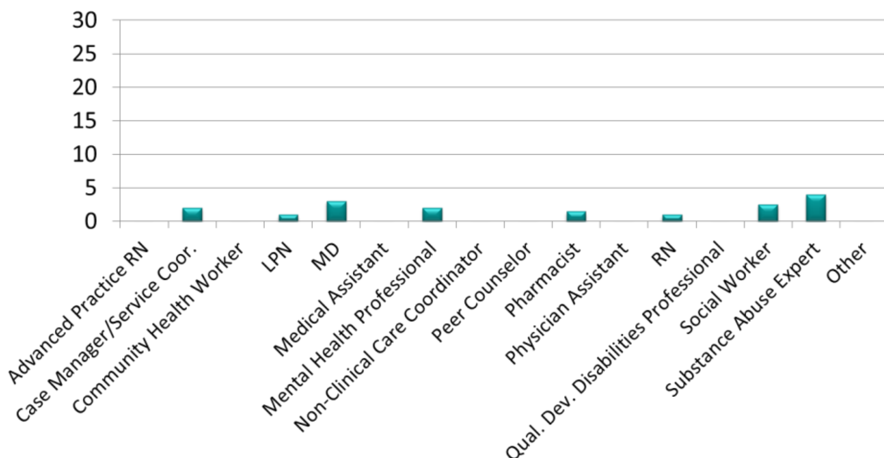
As indicated in Bar Chart 24, Health Care Providers also reported primarily using traditional health care staff to provide care management services (LPNs, MDs, Advanced Practice RNs, RNs and Social Workers).

Bar Chart 24: Health Care Providers: Total Number of FTEs Providing CM Services, by Staffing Type



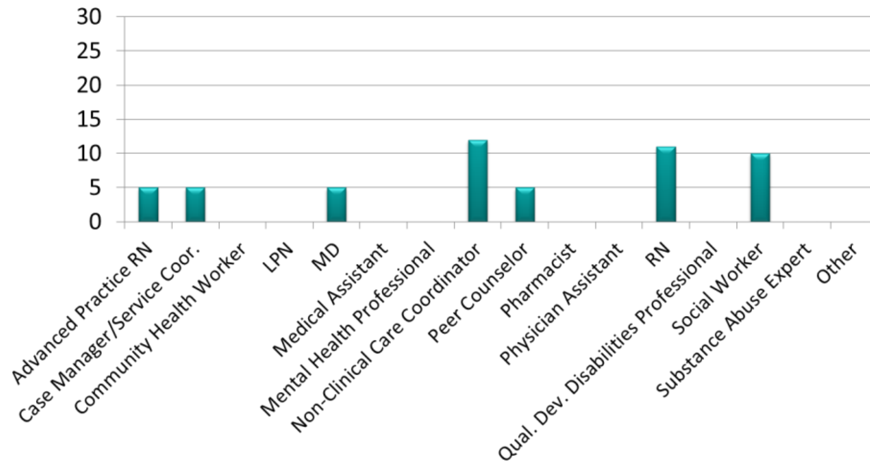
When reviewing the data reported by Health Plans, we see in Bar Chart 25 that fewer numbers of FTEs were providing care management services than in other organizations. Health Plans reported more MDs and Substance Abuse Experts than other types of care management employees. Health Plans were also one of two organizational types using Pharmacists (Health Care Providers were the other).

Bar Chart 25: Health Plans: Total Number of FTEs Providing Care Management Services, by Staffing Type



As indicated in Bar Chart 26, State Agencies generally hired Non-Clinical Care Coordinators, RNs and Social Workers to provide care management services. It is also notable that State Agencies were the second type of organization to use Peer Counselors (Community Service Providers were the other).

Bar Chart 26: State Agencies: Total Number of FTEs Providing CM Services, by Staffing Type



V. Types of Relationships Among Care Management Organizations

This section reviews the types of relationships care management organizations reported having with other organizations. Respondents were asked to indicate which of the following four types of interactions they had with other care management organizations: 1) sharing information; 2) sharing resources; 3) making referrals, and 4) receiving referrals.

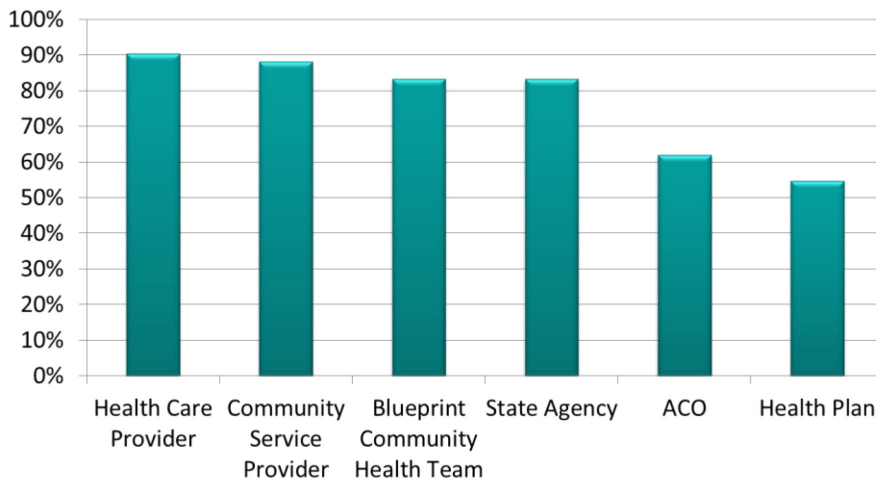
Table 13 shows the frequency of interaction by type of interaction for all respondents. The key finding is that respondents indicated that Sharing Information and Receiving Referrals were the two most frequent types of interactions. Information was shared most frequently with Blueprint Community Health Teams, Community Service Providers, Health Care Providers and State Agencies. Referrals were received most frequently from Blueprint Community Health Teams, Community Service Providers and Health Care Providers.

Table 13: Percent of all responding organizations indicating that they:				
Organization Type	**share information** with this organization	**share resources** with this organization	**make referrals** to this organization	**receive referrals** from this organization
ACO	62%	19%	17%	29%
Blueprint Community Health Team	83%	64%	74%	71%
Community Service Provider	88%	62%	81%	88%
Health Care Provider	90%	60%	86%	88%
Health Plan	55%	21%	24%	36%
State Agency	83%	40%	62%	67%
Count of Organizations Reporting	**42**			

The next four Bar Charts (27-30) further illustrate the information in Table 13.

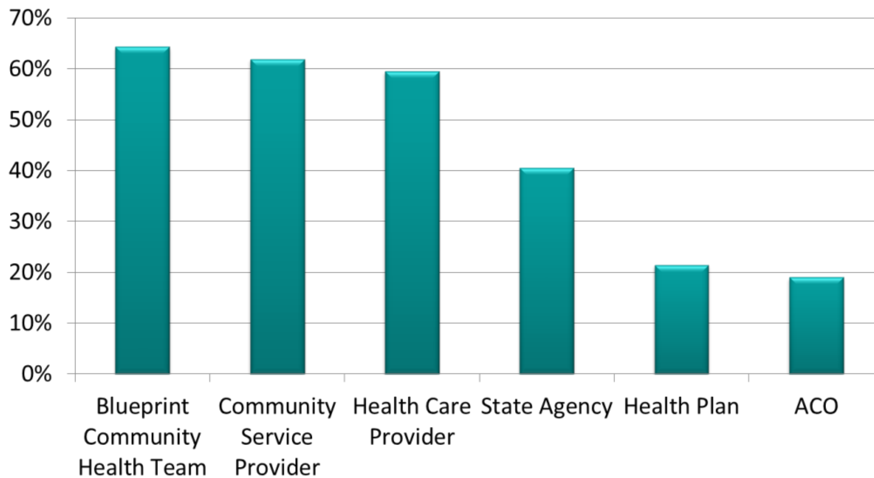
Bar Chart 27 indicates that 55% to 62% of organizations reported sharing information with ACOs and Health Plans, which was noticeably lower than the percentages of responding organizations that reported sharing information with the four other types of organizations, which are at 80% or above.

Bar Chart 27: Percentage at which responding organizations answered, "We share information with this organization," by Organization Type



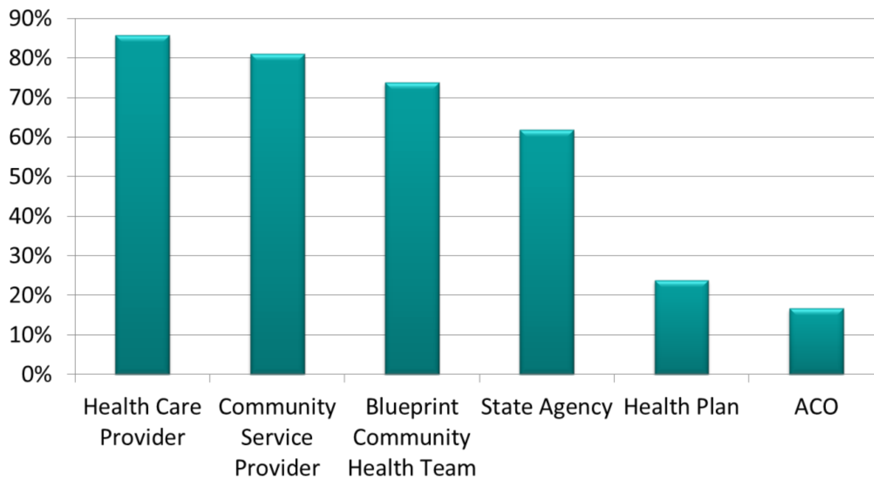
Bar Chart 28 indicates that 60% or more of responding organizations reported sharing resources with Blueprint Community Health Teams, Community Service Providers and Health Care Providers. Less than 20% of responding organizations reported sharing resources with Health Plans and ACOs.

Bar Chart 28: Percentage at which responding organizations answered, "We share resources with this organization," by Organization Type



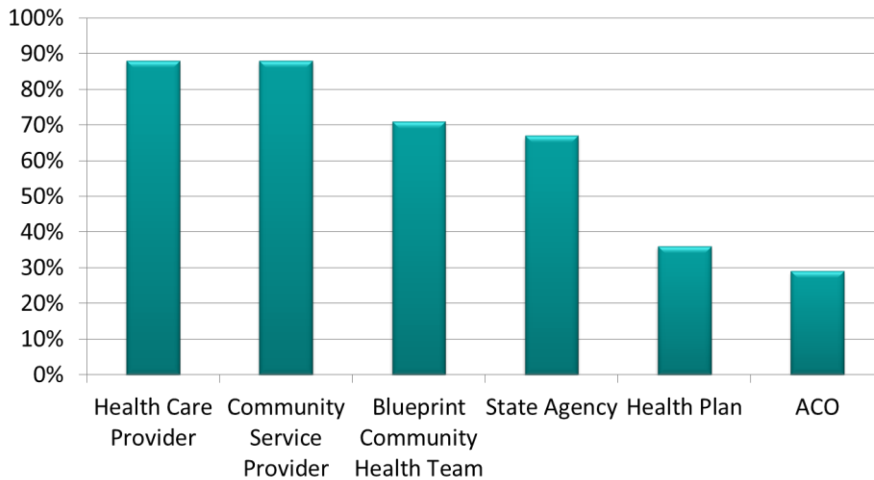
Bar Chart 29 indicates that there was a high rate of making referrals to three types of organizations, with 74% to 86% referring to Health Care Providers, Community Service Providers and Blueprint Community Health Teams. Fewer than 20% of responding organizations reported making referrals to Health Plans and ACOs.

Bar Chart 29: Percentage at which responding organizations answered, "We make referrals to this organization," by Organization Type



Bar Chart 30 indicates that there was the same distribution for receiving referrals as for making referrals.

Bar Chart 30: Percentage at which responding organizations answered, "We receive referrals from this organization," by Organization Type



In an effort to describe the extent of functional care management team activity between non-integrated organizations, respondents were asked to describe the nature of their relationships with other organizations. To identify the nature of relationships, responding organizations were asked about four types of relationships: Legal, Financial, Regular, Structured, and Ad Hoc.

Table 14 indicates which type of relationship for which organizational type was established at a rate significantly higher (H) or lower (L) than the average. If the percentage of responding organization types established a particular type of relationship at a rate that was above the standard deviation, it was noted by the use of "H" in the cell. Alternatively, if the percentage of responding organization types' rate was below the standard deviation, it was noted by the use of "L" in the cell. Table 15 includes the percentages and standard deviations used to assign the Hs and Ls.

Key findings are that the following organization types had more types of relationships at higher rates than the average:

Blueprint Community Health Teams

- Legal Relationships
- Financial Relationships
- Regular, Structured Interactions

Health Care Provider Offices

- Legal Relationships
- Regular, Structured Interactions
- Ad Hoc Interactions Using Established Communication Mechanisms

Hospitals

- Legal Relationships
- Financial Relationships
- Regular, Structured Interactions
- Ad Hoc Interactions Using Established Communication Mechanisms

It is also notable that the following two organizations had certain types of relationships at lower rates than the average:

Adult Day Providers and Faith Based Organizations

- Legal Relationships
- Financial Relationships
- Regular, Structured Interactions

Transportation, Schools, and Housing Organizations had predominately Ad Hoc Interactions with the responding organizations.

ACOs had primarily Legal Relationships and Health Insurers had primarily Financial Relationships with the responding organizations.

Relatively High (H) and Low (L) Percentages of Relationships by Type of Relationship, as Indicated by Responding Organizations

Table 14: Nature of Relationships with Specific Organizations, as Reported by Responding Organizations	Legal Relationship (e.g., contract, MOU)	Financial Relationship (funding supports team interaction)	Regular, Structured Interaction (e.g., scheduled meetings)	Ad Hoc Interaction Using Established Communication Mechanisms
Average Rate for All Respondents	**24%**	**19%**	**43%**	**54%**
ACOs	**H**			**L**
Adult Day Providers	**L**	**L**	**L**	
Blueprint Community Health Teams	**H**	**H**	**H**	
Children with Special Health Needs Providers	**L**			
Community Action Agencies	**L**	**L**		
EPSDT Providers			**L**	**L**
Faith-Based Organizations	**L**	**L**	**L**	
Fitness Providers			**L**	**L**
Health Care Provider Offices	**H**		**H**	**H**
Health Insurers		**H**		
Home Health Agencies/VNAs			**H**	**H**
Hospitals	**H**	**H**	**H**	**H**
Housing Organizations				**H**
Medicaid VCCI		**L**		
Mental Health Providers (Designated Agencies)	**H**	**H**	**H**	
Public Health District Offices	L			
Schools				**H**
Transportation Providers				**H**

Table 15 includes the actual percentages reported by all responding organizations. The rates that are significantly below the average are in blue font and those significantly above the average appear in bold font.

Table 15: Nature of Interactions Between Organizations (Functional Care Mgmt Teams)	**Legal Relationship (e.g., contract, MOU)**	**Financial Relationship (funding supports team interaction)**	**Regular, Structured Interaction (e.g., scheduled meetings)**	**Ad Hoc Interaction Using Established Communication Mechanisms**	**Average**
Average	**24%**	**19%**	**43%**	**54%**	**--**
Standard Deviation	**15%**	**10%**	**15%**	**7%**	**--**
ACOs	**52%**	26%	45%	33%	39%
Adult Day Providers	7%	7%	21%	55%	23%
Area Agencies on Aging	21%	14%	50%	52%	35%
Blueprint Community Health Teams	**40%**	**38%**	**62%**	50%	48%
Children with Special Health Needs Providers	7%	10%	36%	52%	26%
Community Action Agencies	2%	5%	43%	55%	26%
Department of Corrections	12%	12%	29%	52%	26%
Developmental Service Providers (Designated Agencies)	29%	19%	50%	52%	38%
Developmental Service Providers (Other)	24%	21%	38%	50%	33%
EPSDT Providers	17%	17%	21%	43%	24%
Faith-Based Organizations	0%	0%	10%	48%	14%
Fitness Providers	10%	17%	24%	45%	24%
Health Care Provider Offices	**50%**	29%	**67%**	**64%**	52%
Health Insurers	36%	**38%**	29%	50%	38%
Home Health Agencies/VNAs	21%	17%	**60%**	**67%**	41%
Hospitals	**52%**	**31%**	**62%**	**64%**	52%
Housing Organizations	21%	14%	55%	**62%**	38%
Integrated Family Services	17%	17%	48%	57%	35%
Medicaid VCCI	10%	5%	48%	50%	28%
Mental Health Providers (Designated Agencies)	**45%**	**40%**	**62%**	57%	51%
Mental Health Providers (Other)	26%	24%	43%	57%	38%
Public Health District Offices	7%	10%	36%	55%	27%
SASH	38%	24%	57%	50%	42%
Schools	21%	24%	43%	**62%**	38%
Substance Abuse Providers	26%	17%	48%	57%	37%
Transportation Providers	21%	19%	33%	**64%**	35%
Vocational Rehabilitation Providers	24%	24%	36%	52%	34%
Count of Organizations Reporting	42				

VI. Program Accreditation

Responding organizations were asked to indicate if their care management program was accredited by an external organization; 55% reported being accredited. Of those reporting having accredited programs, half indicated their program was accredited by NCQA.

Pie Graph 1: Percent of Accredited CM Programs by Accrediting Organization

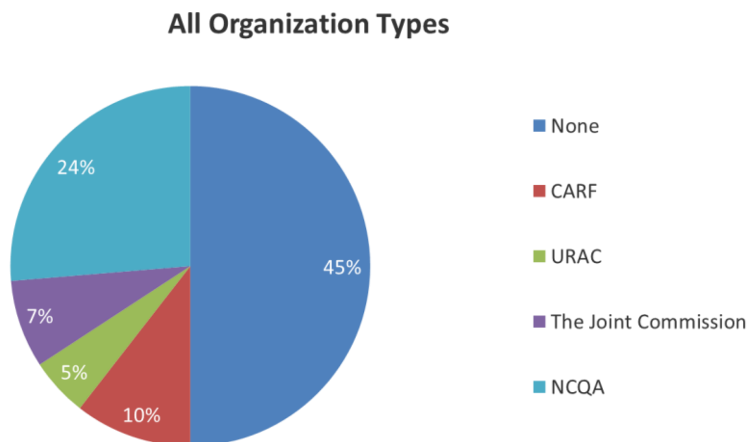


Table 16 indicates the percentage of accredited care management program by accreditation organization by type of organization. No responding ACO had an accredited care management program and less than half of the Community Service Providers had accredited programs. All Health Plans had accredited care management programs. The percentage total exceeds 100% because several Health Plans reported that their care management programs were accredited by more than one organization.

Table 16: Percent of Accredited Care Management Programs by Accreditation Organization

	Type of Organization						
Accreditation Organization	**ACO**	**Blueprint Community Health Team**	**Health Plan**	**State Agency**	**Community Service Provider**	**Health Care Provider**	**All Org. Types**
None	100%	45%		33%	57%	33%	45%
CARF				33%	21%		10%
URAC			67%				5%
The Joint Commission		18%			7%		7%
NCQA		45%	67%			33%	24%
Count of Organizations Reporting	2	11	3	3	14	9	42

VII. Challenges Facing Care Management Programs

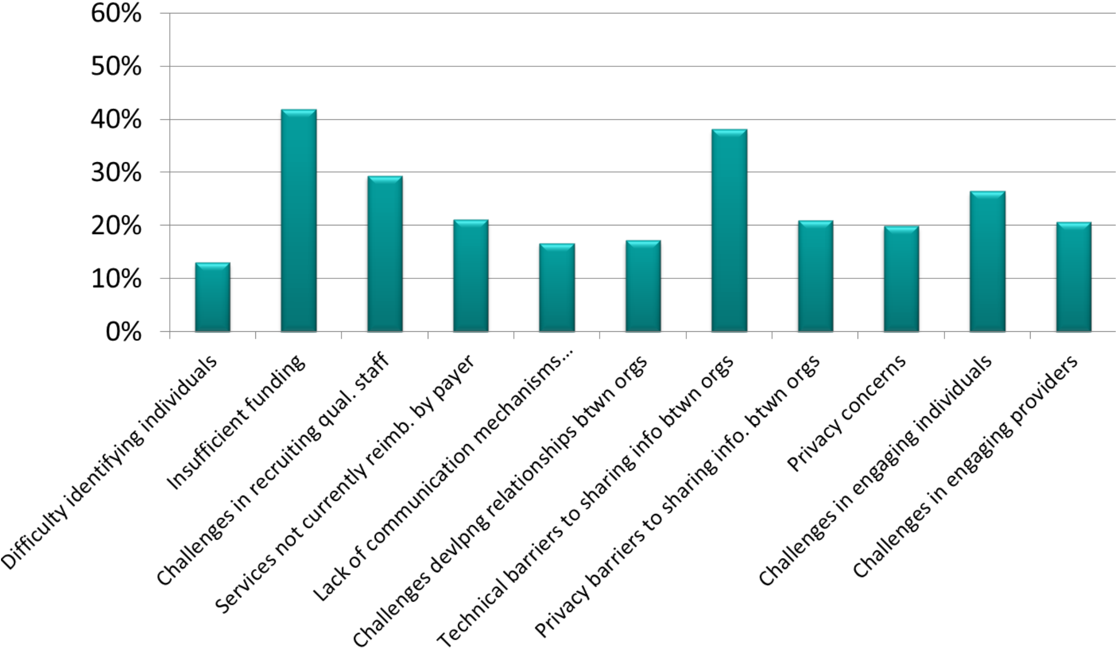
Responding organizations were asked to indicate the challenges they experienced when providing care management services. The respondents were asked to identify challenges from the list below. The top four challenges faced by all respondents across all types of services are highlighted in **bold**.

- Difficulty identifying individuals
- **Insufficient funding**
- **Challenges in recruiting qualified staff**
- Services not currently reimbursed by payers
- Lack of communication mechanisms with other organizations
- Challenges to developing relationships between organizations
- **Technical barriers to sharing information between organizations**
- Privacy barriers to sharing information between organizations
- Privacy concerns
- **Challenges in engaging individuals**
- Challenges in engaging providers

When reviewing Table 17 and Bar Chart 30 below for the top challenges, it is notable that 42% of respondents listed Insufficient Funding and 38% listed Technical Barriers to Sharing Information between Organizations as challenges. The next two top challenges, Challenges in Recruiting Qualified Staff (29%) and Challenges in Engaging Individuals (26%) came in a distant third and fourth. The least frequently identified challenge is Difficulty in Identifying Individuals (13%).

Table 17: Percentage of Responding Organizations Reporting Challenges, by Type of Challenge and Type of Care Management Service										
Challenges	**High Risk Mgmt**	**Special Services Mgmt**	**Episodic Pathways**	**Disease Mgmt**	**Post-Discharge Follow-Up**	**Short-Term Case Mgmt Programs**	**Util. Mgmt**	**Prevention / Wellness Engagement**	**Life Resource Mgmt**	**Average for all Categories of Care Mgmt**
Difficulty identifying individuals	14%	14%	7%	12%	7%	17%	12%	14%	19%	13%
Insufficient funding	**45%**	**55%**	**29%**	**45%**	**26%**	**45%**	**33%**	**48%**	**50%**	**42%**
Challenges in recruiting qualified staff	**43%**	**48%**	**19%**	**24%**	**17%**	**31%**	**24%**	**29%**	**31%**	**29%**
Services not currently reimbursed by payer	21%	31%	5%	21%	12%	26%	17%	29%	29%	21%
Lack of communication mechanisms with other organizations	21%	19%	10%	19%	17%	17%	10%	19%	19%	17%
Challenges to developing relationships between organizations	26%	21%	10%	17%	14%	21%	14%	14%	17%	17%
Technical barriers to sharing information between organizations	**50%**	**45%**	**24%**	**48%**	**33%**	**40%**	**29%**	**38%**	**36%**	**38%**
Privacy barriers to sharing information between organizations	26%	33%	10%	24%	17%	21%	12%	17%	29%	21%
Privacy concerns	24%	26%	10%	21%	19%	21%	17%	19%	21%	20%
Challenges in engaging individuals	**40%**	**31%**	**10%**	**31%**	**17%**	**33%**	**12%**	**31%**	**33%**	**26%**
Challenges in engaging providers	33%	31%	12%	21%	14%	26%	12%	17%	19%	21%

Bar Chart 30: Frequency of Challenges Experienced by Responding Organizations, by Type of Challenge



The data presented in Table 18 show the challenges reported by responding organizations with respect to type of care management service. Insufficient Funding and Technical Barriers to Sharing Information between Organizations were identified as challenges across all types of care management services. Challenges in Recruiting Qualified Staff was reported as a challenge for all types of care management services except for Post-Discharge Follow-up.

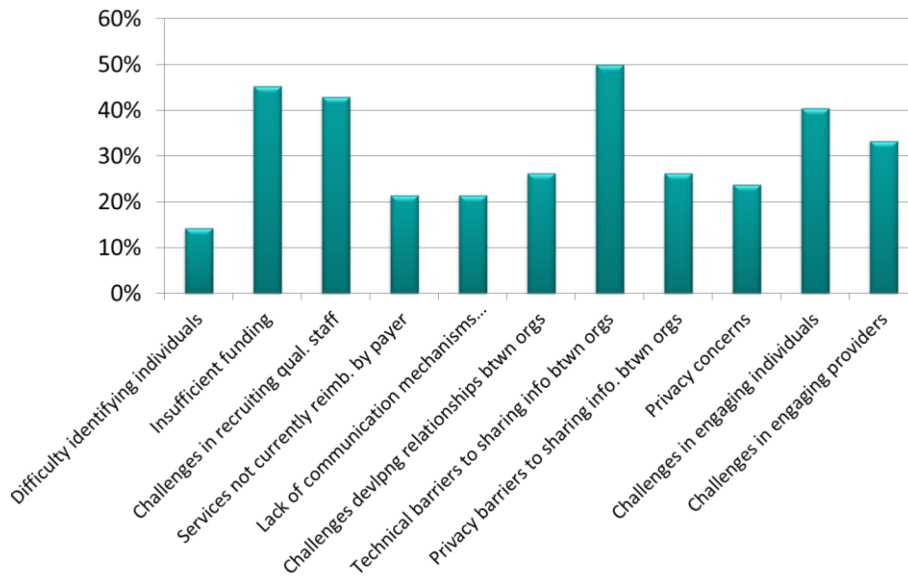
Table 18: Responding Organizations' Challenges by Type of Care Management Service

Type of Challenges	High Risk Mgmt	Special Services Mgmt	Episodic Pathways	Disease Mgmt	Post-Discharge Follow-Up	Short-Term Case Mgmt Programs	Utilization Mgmt	Prevention / Wellness Engagement	Life Resource Mgmt
Difficulty identifying individuals									
Insufficient funding	X	X	X	X	X	X	X	X	X
Challenges in recruiting qualified staff	X	X	X	X		X	X	X	X
Services not currently reimbursed by payer								X	
Lack of communication mechanisms with other organizations									
Challenges to developing relationships between organizations									
Technical barriers to sharing information between organizations	X	X	X	X	X	X	X	X	X
Privacy barriers to sharing information between organizations		X		X					
Privacy concerns					X				
Challenges in engaging individuals	X			X		X		X	X
Challenges in engaging providers			X						

The remaining Bar Charts (31-39) illustrate, for each type of care management service, the distribution of challenges that were reported.

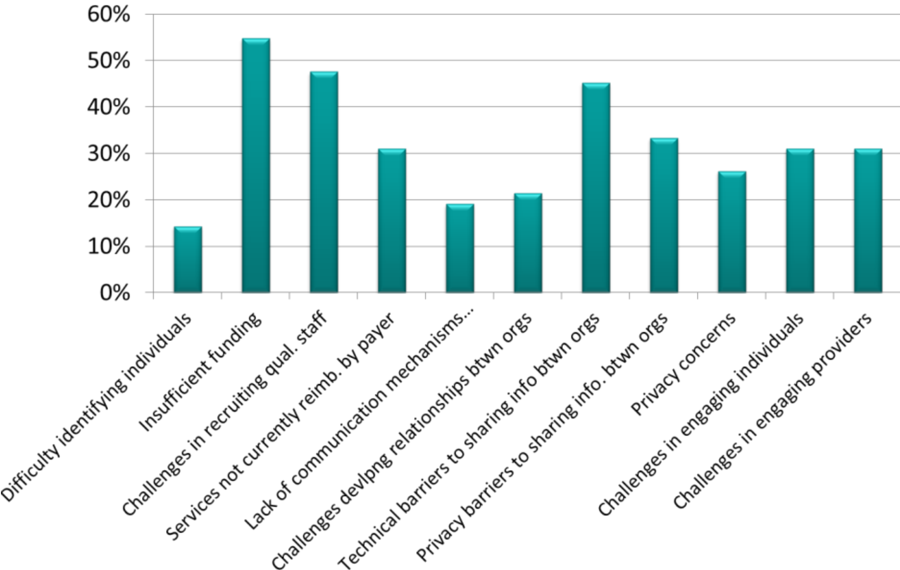
For High Risk Management, the top four challenges were the same as shown in aggregate for all organizations in Bar Chart 30; however, the frequencies of Challenges Recruiting Qualified Staff and Challenges Developing Relationships Between Organizations were approximately 10 percentage points higher than the average.

Bar Chart 31: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: High Risk Management



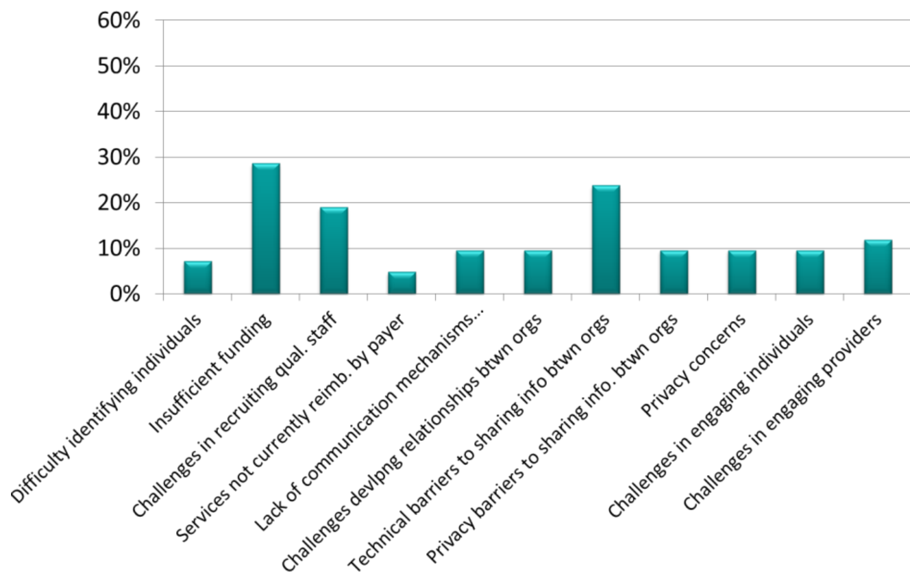
For Special Services Management, Insufficient Funding was the most frequent challenge and was 10 percentage points higher than the average. Challenges Recruiting Qualified Staff was also a frequent challenge and was 10 percentage points higher than the average across all service types. Privacy Barriers to Sharing Information was one of the top four challenges (this is the only care management service type for which this was the case).

Bar Chart 32: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Special Services Management.



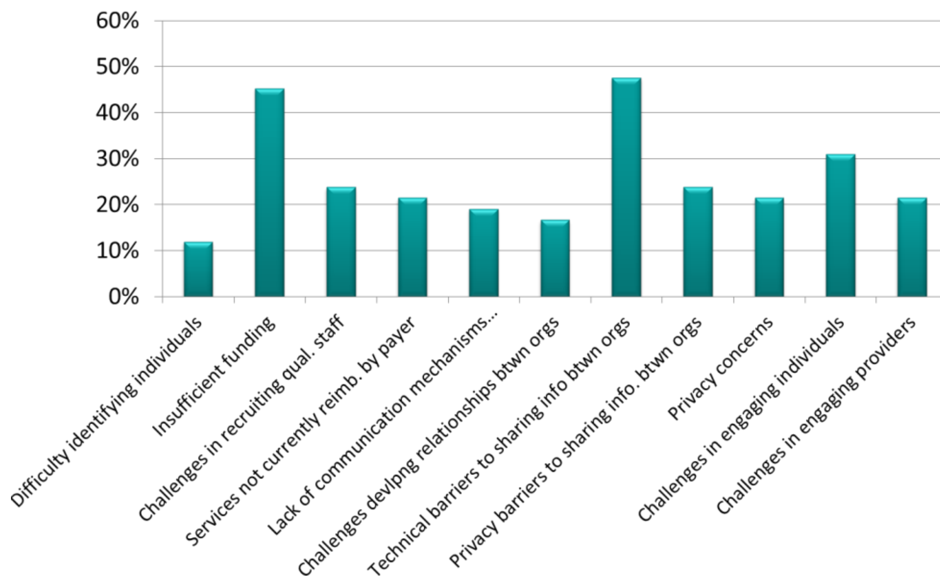
For Episodic Pathways there were lower percentages of challenges reported overall, but Insufficient Funding and Technical Barriers to Sharing Information between Organizations remained the most frequently-reported challenges. Challenges Engaging Providers was included within the top four challenges (this is the only care management service type for which this was the case).

Bar Chart 33: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Episodic Pathways



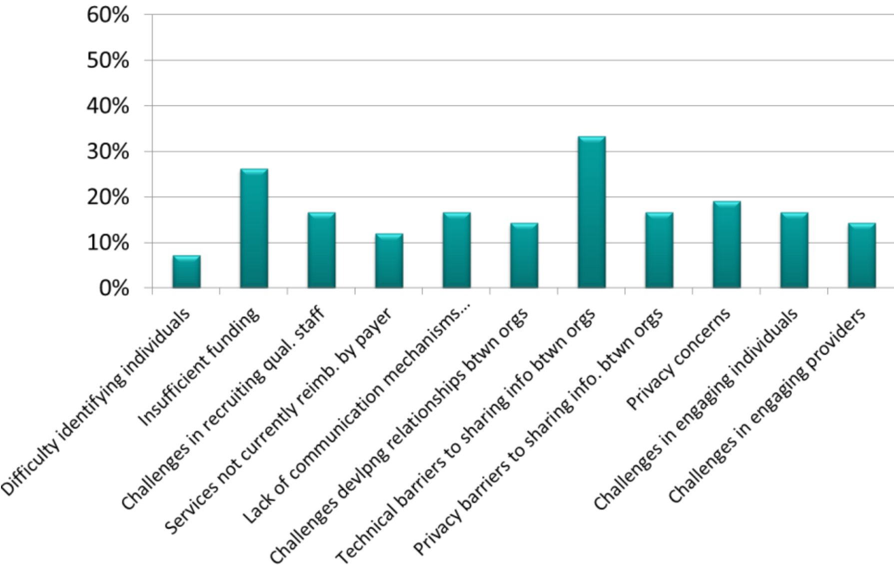
For Disease Management the overall frequency was very similar to the average, with Insufficient Funding and Technical Barriers to Sharing Information between Organizations being the most frequent challenges. Challenges in Recruiting Qualified Staff was five percentage points lower than the average across all service types.

Bar Chart 34: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Disease Management



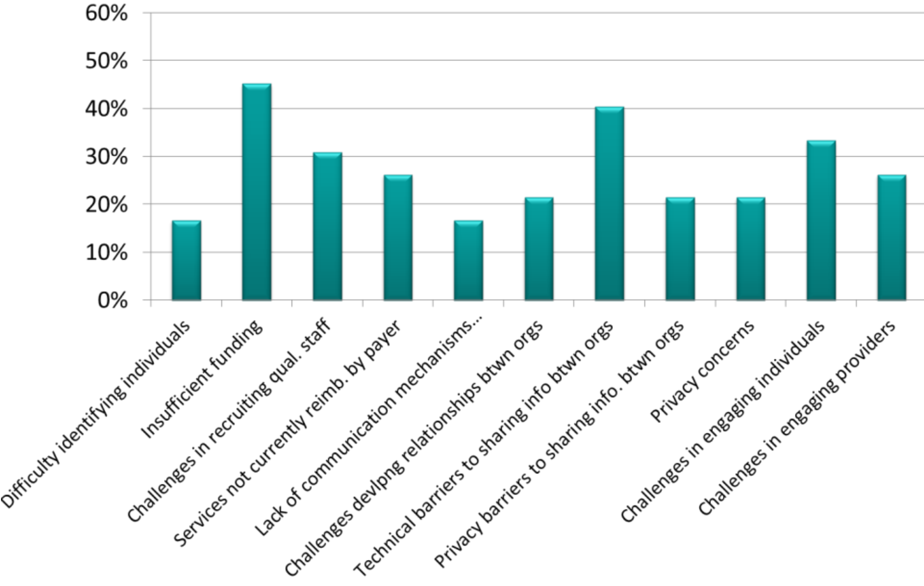
For Post-Discharge Follow-up, Privacy Concerns was among the top four challenges, along with Insufficient Funding and Technical Barriers to Sharing Information Between Organizations. There are four challenges that were tied for fourth place: Lack of Communication Mechanisms, Privacy Barriers to Sharing Information Between Organizations, Challenges in Recruiting Qualified Staff and Challenges in Engaging Individuals. Two challenges (Insufficient Funding and Challenges in Recruiting Qualified Staff) were among the top four challenges, but were 15 percentage points below the average across all service types.

Bar Chart 35: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Post-Discharge Follow-Up



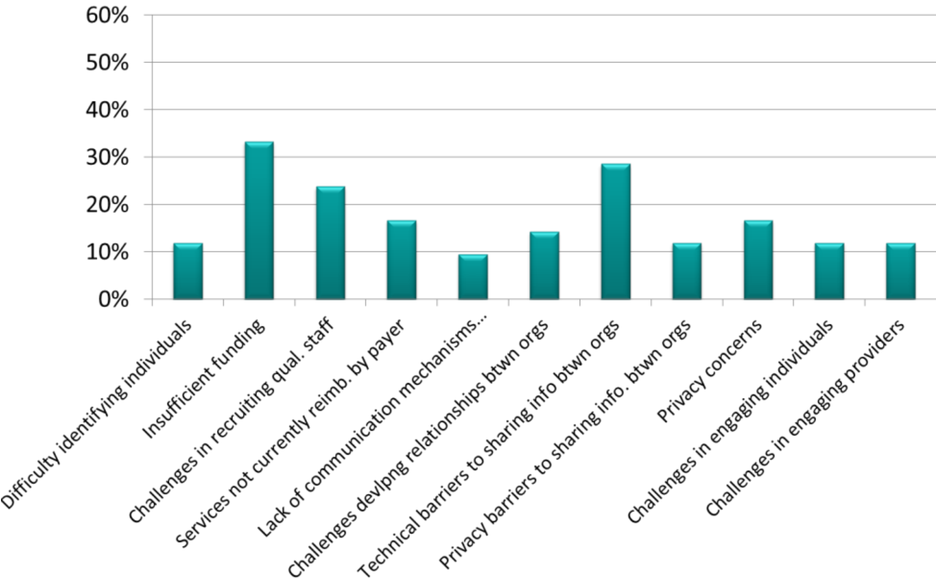
For Short-term Case Management the overall frequency was very similar to the average, including the same top four challenges.

Bar Chart 36: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Short-Term Case Mgmt. Programs



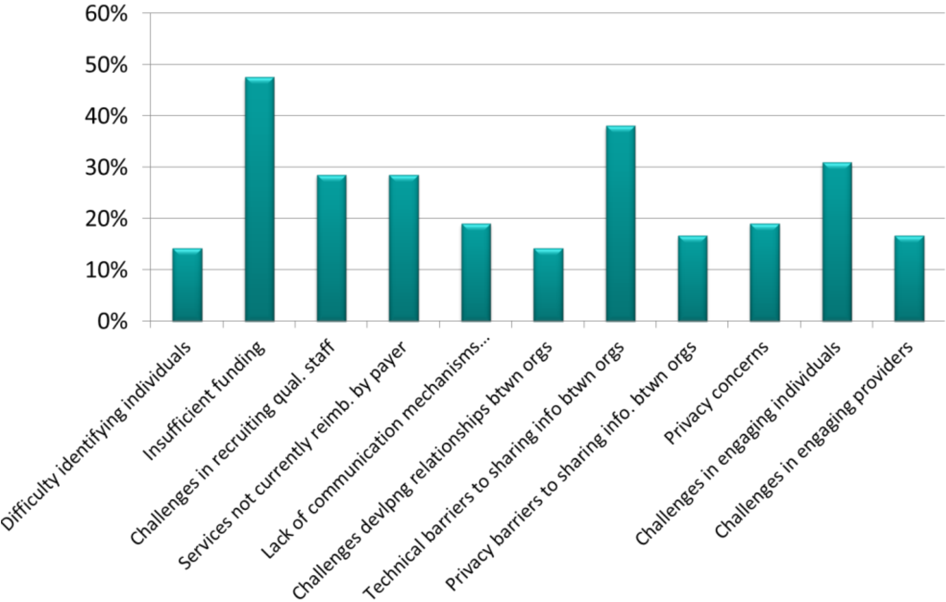
For Utilization Management, the most frequently-cited challenges were Insufficient Funding and Technical Barriers to Sharing Information Between Organizations. The third most frequent challenge was Challenges in Recruiting Qualified Staff. Services Not Currently Reimbursed and Privacy Concern were tied at 17% for fourth place in the list of most frequent challenges.

Bar Chart 37: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Utilization Management



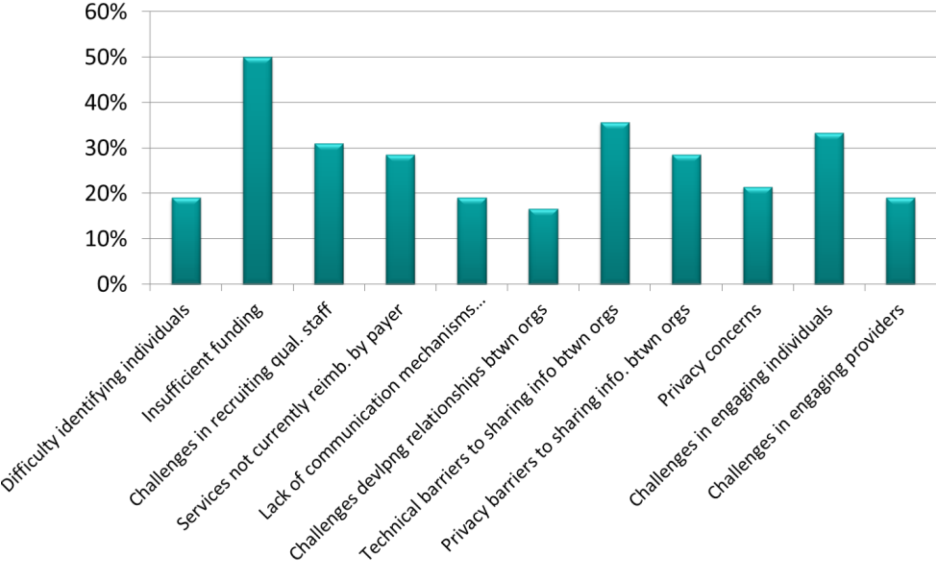
For Prevention/Wellness Engagement, the most frequently-cited challenges were Insufficient Funding and Technical Barriers to Sharing Information between Organizations. The third was Challenges in Engaging Individuals. Services Not Currently Reimbursed and Challenges Recruiting Qualified Staff were tied for fourth place at 29%.

Bar Chart 38: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Prevention / Wellness Engagement



Life Resource Management had the same distribution of challenges as the average, although Services Not Currently Reimbursed by Payer was ten percentage points higher than the average across all service types and was only a few percentage points from fourth place.

Bar Chart 39: Frequency of Challenges Experienced by Responding Organizations, by Type of Service: Life Resource Management



VIII. Conclusion

In reviewing the data presented in this report, there are key areas that the CMCM Work Group may be able to impact in a manner that could improve care management services in Vermont.

First, the data included in Table 11 indicated that for most types of care management services, the CMMI-identified key care management functions were being implemented less than 70% of the time. The highest implementation percentage was 67% for High Risk Management, and the lowest was 28% for Episodic Pathways. For Disease Management, which is a commonly provided service, key functions were reported as being followed among only 66% of the responding organizations. For Post-Discharge Follow-up, which is critical to reducing unnecessary readmissions, key functions were being implemented by only 51% of the responding organizations. There may be an educational opportunity to train care managers, wherever located, on these key care management functions.

Second, the information in Table 14 indicated the types of relationships responding organizations reported with other organizations. With the emergence of integrated delivery systems, such as ACOs, some of the organizations that have relied on ad hoc relationships have an opportunity to establish more formal and structured relationships that allow them to participate in delivery system transformation. Having such relationships will also create stronger ties for providing care management services across care settings and community service organizations, and provide opportunities to develop truly integrated delivery systems that include organizations traditionally on the periphery of traditional health care delivery.

Third, in examining the data in Bar Chart 20, which indicated the staffing types involved in Team-Based Care, it is notable that the highest rates of participation in Team Based Care were among RNs and Social Workers with rates of slightly less than 60%. MD participation was reported at 40% and Medical Assistant participation was below 20%. These data suggest that there may be an opportunity to provide additional training on implementing Team Based Care.

Fourth, the data included in Tables 7 and 8 indicate that people discharged from skilled nursing facilities received the following services at rates significantly below the average:

- Special Services Management
- Episodic Pathways
- Short-term Case Management Programs
- Utilization Management
- Prevention/Wellness Engagement

Ensuring the provision of some or all of these services, when appropriate, for people being discharged from skilled nursing facilities could result in fewer readmissions, which is a very important focus for cost containment.

Fifth, the staffing data in Table 10 indicate that the categories of Community Health Worker, Pharmacist and Physician Assistant had the smallest number of FTEs engaged in care management. Examining the roles that these disciplines could play in improving care management, and recruiting additional FTEs if warranted, could impact resource allocation.

Finally, the four key challenges faced by organizations providing managed care services –- Insufficient Funding, Challenges in Recruiting Qualified Staff, Technical Barriers to Sharing Information Between Organizations, and Challenges in Engaging Individuals – suggest opportunities for the CMCM Work Group and the Vermont Health Care Innovation Project as a whole, to address these challenges as the project strives to create the type of care management system Vermont desires.