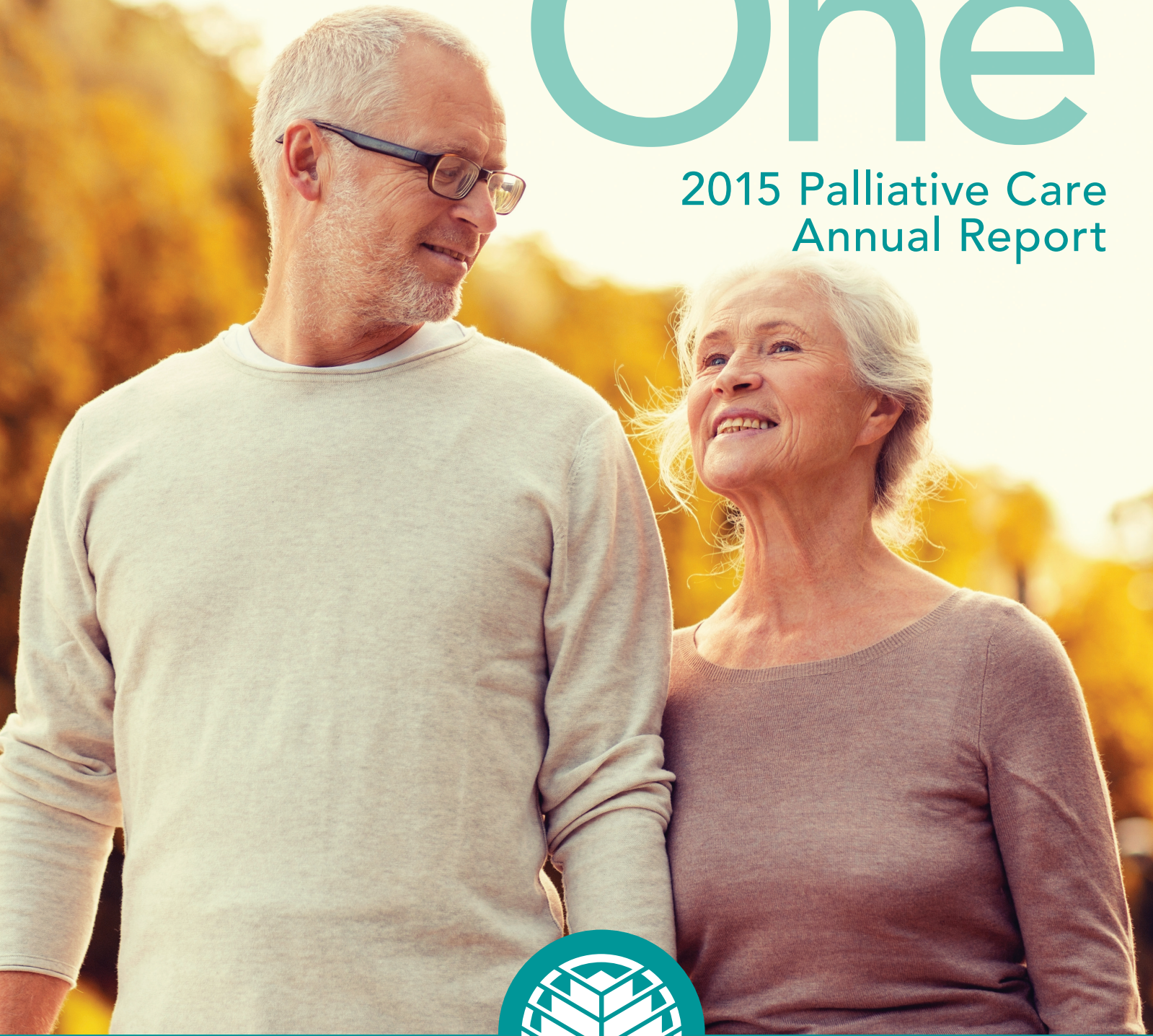


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2015 Palliative Care
Annual Report



Carolinas HealthCare System

In 2012, ASCO released a provisional clinical opinion stating that concurrent palliative care should be considered early in the course of advanced or metastatic cancer and/or in the setting of a high symptom burden. This statement follows other organizational recommendations by the National Comprehensive Cancer Network, Commission on Cancer, Institute of Medicine, European Society of Medical Oncology and the American Cancer Society and was based on multiple studies that reflect the benefit of early palliative care for improving patients' quality of life, patient and family satisfaction, decreased caregiver morbidity and mortality and decreased healthcare service utilization. Prolonged survival was also shown by Temel, et al in the setting of metastatic NSCLC when integrated at the time of diagnosis ¹.

Levine Cancer Institute (LCI) has also supported full integration of palliative care into standard oncology care through development of a full time outpatient clinic devoted to interdisciplinary palliative care, integration into cancer conferences, routine education and staff wellness activities and incorporation of palliative medicine into multiple evidence based tumor-specific clinical pathways. The consideration and screening for palliative medicine referrals are recommended within clinical pathways at the time of advanced disease in conjunction with ongoing disease specific treatments. In addition, individual symptom management pathways were created to guide oncology clinicians in providing primary palliative care in order to optimize symptom management along their patients' course. These symptom management pathways are aimed at common distressing conditions encountered by individuals with cancer, including treatment-related side effects. Interdisciplinary oncology care, including social work support, wellness programs, rehabilitation, and integrative therapies, is incorporated alongside medical recommendations to allow for comprehensive management. Should the symptoms

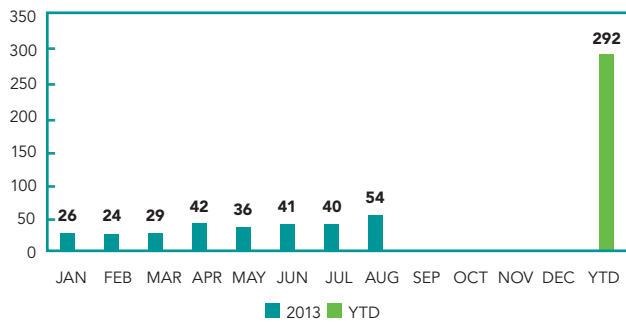
increase to a more challenging level of management, the pathways also provide guidance on when referral to a palliative medicine specialist should be considered. The pathways were created based on the medical evidence across oncology and palliative medicine and will serve as a dynamic tool that will evolve as new options for treatment become available.

In addition to clinical pathways and increased awareness of symptom management needs, there are multiple quality metrics being collected to assure appropriate integration of the services and the effects of palliative care upon patient and family satisfaction and clinical outcomes. Since palliative care has become formally embedded into Levine Cancer Institute, utilization has steadily increased over each month. After the first 8 months, the number of new patient referrals has increased from a total of 26 to 54 (within 1 month) with a total of 292. When measuring the total number of cases by the primary cancer diagnosis the top three tumor sites included, 20% (57 referrals) with lung cancer, 9 % (26 referrals) with head and neck cancer and 8% with breast cancer (24 referrals). Referrals were made primarily for pain and symptom management but also for assistance with establishing goals of treatment and psychosocial support. Specifically, the utilization of palliative care services for patients with Stages IIIB and IV non small cell lung cancer (NSCLC) is being followed due to the high needs of this patient population and the associated poor prognosis¹. Baseline data was collected using the Tumor Registry data LCI and Carolinas Healthcare System to calculate the quantity of this patient population and correlating with a palliative care referral. This metric will be followed up with a comparison of palliative care integration following the integration of a fully embedded clinic service and an embedded trigger within the NSCLC clinical pathway over the next two years. With these integration strategies, the trend for earlier referrals has become more of a reality for LCI and allows the patients and families to have an extra layer of supportive care earlier in their disease trajectory. Additional quality metrics that will be added to the collection process will include the effect of early palliative care upon hospital readmissions, emergency department utilization, hospice transitions and lengths of stay and chemotherapy utilization within the last 14 days of life.

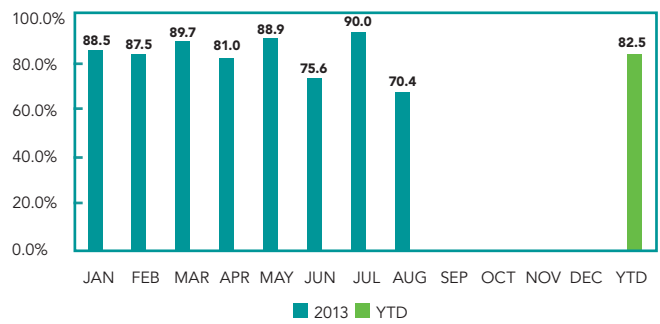
PALLIATIVE CARE DATA AUGUST 2013 (cont.)

2013 QUALITY METRICS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YTD
METRIC 1: Number of Palliative Care Referrals	26	24	29	42	36	41	40	54					292
METRIC 2: % of Patients That Attend Palliative Care Appointment	88.5%	87.5%	89.7%	81.0%	88.9%	75.6%	90.0%	70.4%					82.5%
<i>Metric 2 - Numerator:</i> Number of Patients that Attend Appointment	23	21	26	34	32	31	36	38					241
<i>Metric 2 - Denominator:</i> Number of Palliative Care Referrals	26	24	29	42	36	36	41	54					292

NUMBER OF PALLIATIVE CARE REFERRALS



% OF PATIENTS THAT ATTEND PALLIATIVE CARE APPOINTMENTS



SUMMARY

In summary, the integration of palliative care into comprehensive cancer care is now being recommended by multiple professional organizations and accrediting bodies. This integration allows both patients and families to have multidisciplinary support along their disease course and an increased focus on their quality of life and psychosocial needs. Levine Cancer Institute is fully committed to embracing this integration and assuring the best comprehensive cancer care to our patients from the time of diagnosis, throughout the treatment course and into the stages of end of life care for both patients and their families.

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