

**Developing the Minnesota Cancer Plan
Step 2: Recommend Objectives and Strategies**

Workgroup: Survivorship

Date: 7/14/216

Objective: Minnesota be a leader in developing cancer rehabilitation and cancer exercise to become accessible to all cancer survivors who need these services regardless of demographics and ethnicity

Desired Outcome:

At the end of five years, what would you like to accomplish? Since physical frailty and poor physical fitness is associated with poor cancer outcomes, the screening and treatment of post-cancer physical impairment should be integrated into standard cancer survivorship training, cancer treatment and cancer survivorship care with access to all who needed it and covered by insurance as evidenced based medical treatment.

1. Major medical training programs in MN having course work in Cancer Rehabilitation and Cancer Exercise. 2. Establish Leaders in PMR and Oncology at Major Medical Training programs in MN to work across barriers to create interdisciplinary solutions to cancer rehab referrals and care. 3. Establish criteria/qualifications for community facilities claiming to be cancer exercise programs. 4. Develop innovative technologies and legislative initiatives for remote services such as telemedicine and computer platforms for cancer rehab and cancer fitness/wellness. 5. Require state programs receiving funding for survivorship to evaluate for physical impairments after cancer treatment and develop referral pathways for services. 6. Work with underserved ethnic groups/races to ascertain the barriers to receiving cancer rehab and cancer exercise/wellness services and adapt strategies to meet these needs. If you do not expect to achieve the objective by the end of five years, what would success look like? Any progress toward these initiatives.

Alignment:

Partners currently working on this objective and type of activity:

Organization	Activity (such as PSE change, education, programmatic)
University of MN survivorship services	Screening and treatment for physical impairment
Mayo Survivorship services	"

Strategies

Strategy #1: Major medical training programs in MN having course work in Cancer Rehabilitation and Cancer Exercise.

Indicator to measure progress (such as increased number of engaged stakeholders, increased media events, increased number of local jurisdictions that pass policy): Increased coursework/lectures in oncology and rehab training programs,

Rationale:

- **“Cancer Rehabilitation is medical care that should be integrated throughout the oncology care continuum and delivered by trained rehabilitation professionals who have it within their scope of practice to diagnose and treat patients’ physical, psychological, cognitive and functional impairments in an effort to maintain or restore function, reduce symptom burden, maximize independence and improve quality of life in this medically complex population.”** Silver JK, Raj VS, Fu JB, Wisotzky EM, Smith SR, Kirch RA. *Cancer rehabilitation and palliative care: critical components in the delivery of high-quality oncology services. Support Care Cancer.* 2015 Dec;23(12):3633-43.
- **An adequate workforce of Physical Medicine and Rehabilitation specialists with expertise in cancer rehabilitation is necessary to meet the needs for future cancer survivors in Minnesota.** Alfano, C et al. *Cancer Survivorship and Cancer Rehabilitation: Revitalizing the Link. Journal of Clinical Oncology.* 2012. 30:9. 904-906. Cheville AL (2014) *Postacute care: reasons for its growth and a proposal for its control through the early detection, treatment, and prevention of hospital-acquired disability. Arch Phys Med Rehabil* 95(11):1997–1999. Stout, N. *Towards a National Initiative in Cancer Rehabilitation: Recommendations from a Subject Matter Expert Group.* 2016. *Archives of PMR.* [10.1016/j.apmr.2016.05.002](https://doi.org/10.1016/j.apmr.2016.05.002). Mukai A *The future of physiatry: with challenges come opportunities.* 2011. *PM R* 3(3):189–192. Raj VS *Cancer rehabilitation education during physical medicine and rehabilitation residency: preliminary data regarding the quality and quantity of experiences.* (2014) *Am J Phys Med Rehabil.* doi:[10.1097/PHM.000000000000060](https://doi.org/10.1097/PHM.000000000000060). Smith SR, *Cancer survivorship: a growing role for physiatric care.* (2014) *PM R.* doi:[10.1016/j.pmrj.2014.12.004](https://doi.org/10.1016/j.pmrj.2014.12.004)
- **Medical frailty and untreated physical impairment in cancer survivors increases the cost of care, institutionalization, caregiver burden, hospitalizations, inability to return to work and distress. This is a**

looming crisis in cancer care that must be addressed. Winters-Stone, K. *Preventing Frailty in Older Cancer Survivors. Topics in Geriatric Rehabilitation.* 2015. 31(4), 241-245. Schmitz, K et al. *The intersection of cancer and ageing: establishing the need for breast cancer rehabilitation.* 2007. *Cancer Epidemiology Biomarkers and Prevention.* 2007; 16:866-872. Hoppe, S. *Functional Decline in Older patients receiving first line chemotherapy.* 2013. *J Clin Oncol.* 31; 3877-3882. Bentley, J et al. *Functional status, life-space mobility, and quality of life: a longitudinal mediation analysis.* *Qual Life Res.* 2013 September; 22(7): 1621–1632. C et al. *Older People’s Quality of Life (OPQOL) scores and adverse health outcomes.* *Health and Quality of Life Outcomes* 2011, 9:72. Prado, CM. *Sarcopenia and Physical Function in Overweight Patients with Advanced Cancer.* *Canadian journal of dietetic practice and research (2013)* 74(2):69. Silver, J. *Cancer Rehabilitation may improve function in cancer survivors and decrease the economic burden of cancer to individuals and society.* *Work.* (2013) 46(4): 455-72.

- **In spite of research showing rehabilitation improves functional outcomes, cancer survivors receive few referrals to qualified rehabilitation professionals relative to the burden of remediable physical impairment.** Cheville, A. *The detection and treatment of cancer-related functional problems in an outpatient setting” Supportive Care in Cancer.* 2009 Jan;17(1):61. Cheville, A. *An Examination of the Causes for the Underutilization of Rehabilitation Services Among People with Advanced Cancer.* *Am J Phys Med Rehabil* 2011;90(suppl):S27YS37. Cheville, A, et al. *Prevalence and treatment patterns of physical impairments in patients with metastatic breast cancer.* 2008 *J Clin Onc .* 26(16):2621-9. Cheville, A. *Barriers to Rehabilitation Following Surgery for Primary Breast Cancer.* *J Surg Oncol* 2007;95: 409-18. Thorsen, L et al. *Cancer Patients Needs for Rehabilitation Services.* *ACTA Oncologica.* 2011 50: 212-222. Vargo, M. *The Oncology-Rehabilitation Interface: better systems needed.* *J Clinical Oncol.* 2008. (16) 2610. Spill GR, Hlubocky FJ, Daugherty CK (2012) *Oncologists’ and physiatrists’ attitudes regarding rehabilitation for patients with advanced cancer.* *PMR* 4(2):96–108. Pergolotti M, (2015) *The prevalence of potentially modifiable functional deficits and the subsequent use of occupational and physical therapy by older adults with cancer.* *J Geriatr Oncol.* doi:10.1016/j.jgo.2015.01.004. Salakari MR *Effect of rehabilitation among patients with advanced cancer: a systematic review.* (2015) *Acta Oncol* 54(5):618–628. Cheville AL, *Role of rehabilitation medicine and physical agents in the treatment of cancer-associated pain.* *J Clin Oncol* (2014) 32(16):1691–1702.
- *M, Productivity losses associated with head and neck cancer using the human capital and friction cost approaches.* *ApplHealth Econ Health Policy.* (2015) doi:10.1007/s40258-015-0155-8
- **Exercise for cancer survivors requires specific exercise prescriptions from qualified professionals in rehabilitation and cancer exercise physiology who are able to evaluate safety and comorbidities before prescribing correct individual exercise protocol for survivorship.** Lakoski SG. *Exercise rehabilitation in patients with cancer.* *Nat Rev Clin Oncol.* 2012;9(5):288–96. Sasso, JP. *A framework for prescription in exercise oncology research.* *J Cachexia, Sarcopenia, Muscle.* (2015)6:115-124. Brown, J. *The prescription or proscription of exercise in colorectal cancer care.* *Med Sci Sports Ex.* (2014)46(12):2202-2209. Betof, A. *Effects and potential mechanisms of exercise training on cancer progression: a translational perspective.* *Brain Behav Immun.* (2013)30(0): S75-S87. Midtgaard, J. *Efficacy of multimodal exercise-based rehabilitation on physical activity, cardiorespiratory fitness, and patient reported outcomes in cancer survivors: a randomized, controlled trial.* (2013) *Annals of Oncology.* 24:2267-2273. Brown, J. *Development of a risk-screening tool for cancer survivors to participate in unsupervised*

moderate to vigorous-intensity exercise: results from a survey study. (2015) *PMR*. 7:113-122. Campbell, K. Review of exercise studies in breast cancer survivors: attention to principles of exercise training. (2012) *BrJSportsMed*.46:909-916. Martin, E. Higher intensity exercise helps cancer survivors remain motivated. *J Ca Survivorship* (2016)10(3): 524-533. Devin, J. The influence of high-intensity compared with moderate intensity exercise training on cardiorespiratory fitness and body composition in colorectal cancer survivors: a randomized controlled trial. *J Ca Survivorship* (2016)10(3):467-479. Jones, LW. Precision Oncology: Framework for investigation of exercise as treatment for cancer. (2015) *JClinOncol* 33:1-4. Schmitz, K. Consensus Statement: American College of Sports Medicine Roundtable on Exercise Guidelines for Cancer Survivors. (2010) *MedSciSportsEx* 1409-1426. Wolin, K. Implementing the Exercise Guidelines for Cancer Survivors. (2012) *J Support Oncol*.10 (5): 171-177

- **In spite of research showing rehabilitation improves functional outcomes, cancer survivors receive few referrals to qualified rehabilitation professionals relative to the burden of remediable physical impairment.** Cheville, A. The detection and treatment of cancer-related functional problems in an outpatient setting” *Supportive Care in Cancer*. **2009** Jan;17(1):61. Cheville, A. An Examination of the Causes for the Underutilization of Rehabilitation Services Among People with Advanced Cancer. *Am J Phys Med Rehabil* 2011;90(suppl):S27YS37. Cheville, A, et al. Prevalence and treatment patterns of physical impairments in patients with metastatic breast cancer. 2008 *J Clin Onc* . 26(16):2621-9. Cheville, A. Barriers to Rehabilitation Following Surgery for Primary Breast Cancer. *J Surg Oncol* 2007;95: 409-18. Thorsen, L et al. Cancer Patients Needs for Rehabilitation Services. *ACTA Oncologica*. 2011 50: 212-222. Vargo, M. The Oncology-Rehabilitation Interface: better systems needed. *J Clinical Oncol*. 2008. (16) 2610. Spill GR, Hlubocky FJ, Daugherty CK (2012) Oncologists’ and physiatrists’ attitudes regarding rehabilitation for patients with advanced cancer. *PMR* 4(2):96–108. Pergolotti M, (2015) The prevalence of potentially modifiable functional deficits and the subsequent use of occupational and physical therapy by older adults with cancer. *J Geriatr Oncol*. doi:10.1016/j.jgo.2015.01.004. Salakari MR Effect of rehabilitation among patients with advanced cancer: a systematic review. (2015) *Acta Oncol* 54(5):618–628. Cheville AL, Role of rehabilitation medicine and physical agents in the treatment of cancer-associated pain. *J Clin Oncol* (2014) 32(16):1691–1702.

This is an x evidence-based practice promising practice other. Please explain.

Does this strategy promote health equity by addressing a racial, economic, geographic or other barrier? If yes, explain.

- **Racial/ethnic disparities in access to rehabilitation and exercise interventions places these populations at greater risk of poor outcomes from cancer treatment.** Hair, B. *Racial differences in physical activity among breast*

cancer survivors: implications for breast cancer care. (2014). Cancer. 120(14):2174-2182. Black, D. Racial disparities in adoption of axillary sentinel lymph node biopsy and lymphedema risk in women with breast cancer. (2014) JAMASurg 149(8): 788-796. Morehead-Gee, A. Racial disparities in physical and functional domains in women with breast cancer. (2012)SupportiveCareCancer.20(8): 1839-47. Owasu, C. Racial disparities in functional disability among older women with newly diagnosed non-metastatic breast cancer. (2013)119(21):3839-46

Rank this strategy for the greatest potential for traditional and non-traditional partners working together.

Rank ___ of ___ strategies

Strategy #2: Develop innovative technologies and programs to provide access to rehabilitation in areas it is not available.

Indicator to measure progress (such as increased number of engaged stakeholders, increased media events, increased number of local jurisdictions that pass policy): Broadband availability for online rehabilitation and cancer exercise wellness apps. Advancing telemedicine technology for greater outreach in cancer rehabilitation

Rationale: Most cancer rehabilitation and cancer fitness/wellness services are only in large metro areas of MN

This is an ___ evidence-based practice ___x_ promising practice ___ other. Please explain.

Does this strategy promote health equity by addressing a racial, economic, geographic or other barrier? If yes, explain. Access to services for those who currently are excluded

Rank this strategy for the greatest potential for traditional and non-traditional partners working together.

Rank ___ of ___ strategies

Strategy #3: Work with state payors on models of care that enhance better outcomes by adequate coverage of rehabilitation and cancer fitness/wellness services

Indicator to measure progress (such as increased number of engaged stakeholders, increased media events, increased number of local jurisdictions that pass policy): Payors have coverage for evidence based services that improve outcomes

- **Rationale: Current models of medical care, payment systems and inaccurate coverage determinations work against the clinical integration of effective rehabilitation into oncology to the detriment of patient outcomes, health and wellness after cancer treatment. Minnesota needs to be at the forefront of research and policy development that facilitates effective, covered rehabilitation care for Minnesota cancer survivors.** Round, J. *A cost-utility analysis of a rehabilitation service for people living with and beyond cancer.* *BMC Health Serv Res.* 2014. 14(1):558. Institute of Medicine (2013) *Delivering high-quality cancer care: charting a new course for a system in crisis.* National Academies Press, Washington, DC. Stubblefield MD. *Current perspectives and emerging issues on cancer rehabilitation.* *Cancer* 2013.119(Suppl 11):2170–2178. Mewes JC *Effectiveness of multidimensional cancer survivor rehabilitation and cost-effectiveness of cancer rehabilitation in general: a systematic review.* *Oncologist*(2012)17(12):1581–1593. Palacio A, *Oncology and physical medicine and rehabilitation.* *Ann Phys Rehabil Med* (2009) 52(7–8):568–578. Shin KY, *Inpatient cancer rehabilitation: the experience of a national comprehensive cancer center.* *Am J PhysMed Rehabil* (2011)90(5 Suppl 1):S63–68. Stout NL. *A prospective surveillance model for rehabilitation for women with breast cancer.* *Cancer* (2012) 118(8Suppl):2191–2200. Alfano CM, *An action plan for translating cancer survivorship research into care.* (2014) *J Natl Cancer Inst* 106(11). doi:10.1093/jnci/dju287. Gladieux JE. *Jimmo and the improvement standard: implementing medicare coverage through regulations, policy manuals and other guidance.* (2014) *Am J Law Med* 40(1):7–25

This is an ___ evidence-based practice ___x___ promising practice ___ other. Please explain.

Does this strategy promote health equity by addressing a racial, economic, geographic or other barrier? If yes, explain. Payors have different policies for standard rehabilitation care. Some citizens do not receive coverage for medical services that would improve outcome of cancer treatment

**Rank this strategy for the greatest potential for traditional and non-traditional partners working together.
Rank ___ of ___ strategies**