

*nenalomompiled by Michael Edwards, PhD, NorthEast Telehealth Resource Center, July 2017; contact: [medwards@rmcl.org](mailto:medwards@rmcl.org); Website: <http://netrc.org>*







Grustam AS, Severens JL, De Massari D, et al. Cost-effectiveness analysis in telehealth: a comparison between home telemonitoring, nurse telephone support, and usual care in chronic heart failure management. *Value Health* 21(7):772

Estai M, Bunt S, Kanagasingam Y, Tennant M. Cost savings from a teledentistry model for school dental screening: an Australian health system perspective. *Aust. Health Rev.* [epub ahead of print] June 2017 [htm](#)

[RETURN TO TOPIC TABLE](#)

**--Dermatology**

Armstrong AW, Dorer DJ, Lugn NE, Kvedar JC. Economic evaluation of interactive teledermatology compared with conventional care. *Telemed. eHealth* 13(2):91-99, 2007 [pdf](#)

Bashshur RL, Shannon GW, Tejasvi T, Kvedar JC, Gates M. The empirical foundations of teledermatology: A review of the research evidence. *Telemed. eHealth* 21(12):953-979, 2015 [htm](#)

Eminovi N,

Theodore BR, Whittington J, Towle C, et al. Transaction cost analysis of in-clinic versus telehealth consultations for chronic pain: preliminary evidence for rapid and affordable access to interdisciplinary collaborative consultation. *Pain Med.* 16(6):1045-1056, 2015 [htm](#)

UConn Health. The use of eConsults for specialty referrals: A policy report for the University of Connecticut-Medicaid Partnership. University of Connecticut Center for Public Health and Health Policy, 2014 [pdf](#)

### **--Emergency medicine**

Alqusairi D. On-the-scene video consultations with emergency physicians reduce unnecessary ambulance transports and emergency department visits, connect people to medical homes. *AHRQ Health Care Innovations Exchange, Service Delivery Innovation Profile*, November, 2015 [htm](#)

Amadi-Obi A, Gilligan P, Owens N, O'Donnell C. Telemedicine in pre-hospital care: a review of telemedicine applications in prehospital environment. *Int. J. Emerg. Med.* 7:29, 2014 [pdf](#)

Armaignac DL, Saxena A, Rubens M, et al. Impact of telemedicine on mortality, length of stay, and cost among patients in progressive care units: experience from a large healthcare system. *Crit. Care Med.* 46(5):728-735, 2018 [htm](#)

Canadian Agency for Drugs and Technologies in Health. Telemedicine for the treatment of urgent conditions: a review of clinical effectiveness, cost-effectiveness, and guidelines. CADTH Rapid

- Hameed AS, Sauermann S, Schreier G. The impact of adherence on costs and effectiveness of telemedical patient management in heart failure: a systematic review. *Stud. Health Technol. Inform.* 198:250, 2014 [htm](#)
- Hazenberg A, Kerstjens HA, Prins SC, Vermeulen KM, Wijkstra PJ. Initiation of home mechanical ventilation at home: a randomised controlled trial of efficacy, feasibility and costs. *Respir. Med.* 108(9):1387-1395, 2014 [htm](#)
- Henderson C, Knapp M, Fernandez J-L, et al. Cost effectiveness of telehealth for patients with long term conditions (Whole Systems Demonstrator telehealth questionnaire study): nested economic evaluation in a pragmatic, cluster randomised controlled trial. *Brit. Med. J.* 346: 1035, 2013 [htm](#)
- Herold R, Hoffmann W, van den Berg N. Telemedical monitoring of patients with chronic heart failure has a positive effect on total health costs. *BMC Health Serv. Res.* 18(1):271, 2018 [htm](#)
- Isetta V, Lopez-Agustina C, Lopez-Bernal E, et al. Cost-effectiveness of a new internet-based monitoring tool for neonatal post-discharge home care.



Purcell R, McInnes S, Halcomb EJ. Telemonitoring can assist in managing cardiovascular disease in primary care: a systematic review of systematic reviews. *BMC Fam. Pract.* 15: 43, 2014 [htm](#)

Radhakrishnan K, Xie B, Berkley A, Kim M. Barriers and facilitators for sustainability of tele-homecare programs: a systematic review. *Health Serv. Res.* 51(1):48-75, 2016 [htm](#)

Rojas SV, Gagnon M-P. A systematic review of the key indicators for assessing telehomecare cost-effectiveness. *Telemed. eHealth* 14(9): 896–904, 2008 [htm](#)

Ryan D, Price D, Musgrave SD, et al. Clinical and cost effectiveness of mobile phone supported self monitoring of asthma: multicentre randomised controlled trial. *Brit. Med. J.* 344: e1756, 2012 [htm](#)

- Compen F, Adang E, Bisseling E, van der Lee M, Speckens A. Cost-utility of individual internet-based and face-to-face Mindfulness-Based Cognitive Therapy compared to treatment as usual in reducing psychological distress in cancer patients. *Psychooncology* 29(2):294-303, 2020 [PubMed](#)
- Davies SF. A hospital driven telepsychiatry initiative to improve patient care and reduce costs. *North Carolina Med. J.*73(3):228-230, 2012 ([htm](#))
- Deslich SA, Thistlethwaite T, Coustasse A. Telepsychiatry in correctional facilities: using technology to improve access and decrease costs of mental health care in underserved populations. *Permanete J.* 17(3):80-86, 2013 [htm](#)
- Egede LE, Gebregziabher M, Zhao Y, et al. Impact of mental health visits on healthcare cost in patients with diabetes and comorbid mental health disorders. *PLoS One* 9(8): e103804, 2014 [htm](#)

Shore JH, Brooks E, Savin DM, Manson SM, Libby AM. An economic evaluation of telehealth data collection with rural populations. *Psychiatr. Serv.* 58 (6):830-835, 2007 [htm](#)

Thomas JF, Novins DK, Hosokawa PW, et al. The use of telepsychiatry to provide cost-efficient care during pediatric mental health emergencies. *Psychiatr. Serv.* 69(2):161-168, 2018 [htm](#)

Wade VA, Karnon J, Elshaug AG, Hiller JE. A systematic review of economic analyses of telehealth services using real time video communication. *BMC Health Serv. Res.* 10: 233, 2010 [htm](#)

Waugh M, Voyles D, Thomas MR. Telepsychiatry: Benefits and costs in a changing health-care environment. *Int. Rev. Psychiatry* 27(6):558-568, 2015 [PubMed](#)

[RETURN TO TOPIC TABLE](#)

**--Neurology/Stroke**

Demaerschalk BM, Hwang HM, Leung G. Cost analysis review of stroke centers, telestroke, and rt-PA. *Amer. J. Manag. Care* 16(7):537-544, 2010 [htm](#)

Demaerschalk BM, Switzer JA, Xie J. Cost utility of hub-and-spoke telestroke networks from societal perspective.

Shah MN, Wasserman EB, Gillespie SM, et al. High-intensity telemedicine decreases emergency department use for ambulatory care sensitive conditions by older adult senior living community residents. *J. Amer. Med. Dir. Assoc.* 16(12):1077-1081, 2015 [htm](#)

[RETURN TO TOPIC TABLE](#)

**--Ophthalmology**

Aoki N, Dunn K, Fukui T, Beck JR, Schull WJ, Li HK. Cost-effectiveness analysis of telemedicine to evaluate diabetic retinopathy in a prison population. *Diabetes Care* 27: 1095-1101, 2004 [htm](#)

Avidor D, Loewenstein A, Waisbourd M, Nutman A. Cost-effectiveness of diabetic retinopathy screening programs using telemedicine: a systematic review. *Cost Eff. Resource Alloc.* 18:16, 2020 [htm](#)

Coronado AC, Zaric GS, Martin J, et al. Diabetic retinopathy screening with pharmacy-based teleophthalmology in a semiurban setting: a cost-effectiveness analysis. *CMAJ Open* 4(1):E95-E102, 2016 [htm](#)

Daskivich LP, Vasquez C, Martinez C Jr, Tseng CH, Mangione CM. Implementation and evaluation of a large-scale teleretinal diabetic retinopathy screening program in the Los Angeles County Department of Health Services. *JAMA Intern. Med.* [epub ahead of print], March 2017 [htm](#)

Ellis MP, Bacorn C, Luu KY, et al. Cost Analysis of teleophthalmology screening for diabetic retinopathy using teleophthalmology billing codes. *Ophthalmic Surg. Lasers Imaging Retina* 51(5):S26-S34, 2020 [PubMed](#)

Jackson KM, Scott KE, Graff Zivin J, et al. Cost-utility analysis of telemedicine and ophthalmoscopy for retinopathy of prematurity management. *Arch. Ophthalmol.* 126(4):493-499, 2008 [htm](#)

Newman M. Fiscal impact of AB 175: Analysis of the cost effectiveness of store and forward teleophthalmology. California Healthcare Foundation, 2009 [htm](#)

Pasquel FJ, Hendrick AM, Ryan M, et al. Cost-effectiveness of different diabetic retinopathy screening modalities. *J. Diabetes Sci. Technol.* 10(2):301-307, 2015 [htm](#)

Rein DB, Wittenborn JS, Zhang X, et al. The cost-effectiveness of three screening alternatives for people with diabetes with no or early diabetic retinopathy. *Health Serv. Res.* 46(5):1534-1561, 2011 [htm](#)

Richardson DR, Fry RL, Krasnow M. Cost-savings analysis of telemedicine use for ophthalmic screening in a rural Appalachian health clinic. *West Virg. Med. J.* 109(4):52-55, 2013 [pdf](#)

Ullah W, Pathan SK, Panchal A, et al. Cost-effectiveness and diagnostic accuracy of telemedicine in macular disease and diabetic retinopathy: A systematic review and meta- analysis. *Medicine* 99(25):e20306, 2020 [htm](#)

conventional fundus imaging: a low-cost alternative for retinopathy of prematurity screening and documentation. *Sci. Rep.* 9(1):19711, 2019 [htm](#)

Whited JD, Datta SK, Aiello LM, et al. A modeled economic analysis of a digital tele-ophthalmology system as used by three federal health care agencies for detecting proliferative dia-

Kessler EA, Sherman AK, Becker ML. Decreasing patient cost and travel time through pediatric rheumatology telemedicine visits. *Pediatr. Rheumatol. Online J.* 14(1):54, 2016 [htm](#)

Lindgren S, Wacker D, Suess A, et al. Telehealth and autism: treating challenging behavior at lower cost. *Pediatrics* 137 (Suppl 2):

Oksman E, Linna M, Hörhammer I, Lammintakanen J, Talja M. Cost-effectiveness analysis for a tele-based health coaching program for chronic disease in primary care. *BMC Health Serv. Res.* 17(1):138, 2017 [htm](#)

Palmas W, Shea S, Starren J, et al. Medicare payments, healthcare service use, and telemedicine implementation costs in a randomized trial comparing telemedicine case management with usual care in medically underserved participants with diabetes mellitus (IDEATel). *J. Amer. Med. Inform. Assoc.*

- Kairy D, Lehoux P, Vincent C, Visintin M. A systematic review of clinical outcomes, clinical process, healthcare utilization and costs associated with telerehabilitation. *Disabil. Rehabil.* 31(6): 427-447, 2009 [htm](#)
- Kidholm K, Rasmussen MK, Andreassen JJ, Hansen J, Nielsen G, Spindler H, Dinesen B. Cost-utility analysis of a cardiac telerehabilitation program: the teledialog project. *Telemed. eHealth* 22(7): 1-11, 2015 [htm](#)
- Lloréns R, Noé E, Colomer C, Alcañiz M. Effectiveness, usability, and cost-benefit of a virtual reality–based telerehabilitation program for balance recovery after stroke: A randomized controlled trial. *Arch. Phys. Med. Rehab.* 96(3):418-425, 2015 [htm](#)
- Nelson M, Russell T, Crossley K, Bourke M, McPhail S. Cost-effectiveness of telerehabilitation versus traditional care after total hip replacement: A trial-based economic evaluation. *J. Telemed. Telecare* [epub ahead of print], Sept. 2019 [PubMed](#)
- Tousignant M, Moffet H, Nadeau S, et al. Cost analysis of in-home telerehabilitation for post-knee arthroplasty. *J. Med. Internet Res.* 17(3):e83, 2015 [htm](#)
- Worthen-Chaudhari L. Effectiveness, usability, and cost-benefit of a virtual reality–based telerehabilitation program for balance recovery after stroke: A randomized controlled trial. *Arch. Phys. Med. Rehab.* 96(8), 1544, 2015 [htm](#)

[RETURN TO TOPIC TABLE](#)

**--Surgery**

- Aponte-Tinao LA, Farfalli GL, Albergo JI, et al. Face to face appointment vs. telemedicine in first time appointment orthopedic oncology patients: a cost analysis. *Stud. Health Technol. Inform.* 264:512-515, 2019 [PubMed](#)
- Armstrong KA, Semple JL, Coyte PC. Replacing ambulatory surgical follow-up visits with mobile app home monitoring: Modeling cost-effective scenarios. *J. Med. Internet Res.* 16(9):e213, 2014 [htm](#)
- Buvik A, Bergmo TS, Bugge E, et al. Cost-effectiveness of telemedicine in remote orthopedic consultations: randomized controlled trial. *J. Med. Internet Res.* 21(2):e11330, 2019 [htm](#)
- de Jong MJ, Boonen A, van der Meulen-de Jong AE, et al. Cost-effectiveness of telemedicine-directed specialized vs standard care for patients with inflammatory bowel diseases in a randomized trial. *Clin Gastroenterol. Hepatol.* [epub ahead of print] April 2020 [PubMed](#)
- Nguyen KH, Smith AC, Armfield NR, Bensink M, Scuffham PA. Cost-effectiveness analysis of a mobile ear screening and surveillance service versus an outreach screening, surveillance and surgical service for indigenous children in Australia. *PLoS One* 10(9):e0138369, 2015 [htm](#)
- Philips R, Seim N, Matrka L, et al. Cost savings associated with an outpatient otolaryngology telemedicine clinic. *Laryngoscope Investig. Otolaryngol.* 4(2):234-240, 2019 [htm](#)
- Theodore BR, Whittington J, Towle C, et al. Transaction cost analysis of in-clinic versus telehealth consultations for chronic pain: preliminary evidence for rapid and affordable access to interdisciplinary collaborative consultation. *Pain Med.* 16(6):1045-1056, 2015 [htm](#)
- Viers BR, Lightner DJ, Rivera ME, et al. Efficiency, satisfaction, and costs for remote video visits following radical prostatectomy: a randomized controlled trial. *Eur. Urol*

*Northeast Telehealth Resource Center is a partnership of Medical Care Development Public Health with the*