

Lewiecki EM; Rochelle R; Bouchonville II MF; Jackson A; Lake A; Carey J, Belaya Z; Babalyan V; Wiluzanski D

<sup>1</sup>University of New Mexico Health Sciences Center, Albuquerque, NM, USA; <sup>2</sup>Michigan Neurosurgical Institute, Grand Blanc, MI, USA; <sup>3</sup>Wake Forest Baptist Health, Winston-Salem, NC, USA; <sup>4</sup>National University of Ireland Galway, Galway, Ireland; <sup>5</sup>The National Research Centre for Endocrinology, Moscow, Russia; <sup>6</sup>"Diavant" LLC, Yerevan, Armenia; <sup>7</sup>Centroseo Diagnostic Clinic, Montevideo, Uruguay

#### INTRODUCTION

Bone Health TeleECHO (Extension for Community Healthcare Outcomes) was established at the University of New Mexico Health Sciences Center (UNM HSC) through collaboration with the Osteoporosis Foundation of New Mexico. It is a strategy for improving the level of knowledge of healthcare professionals in the care of patients with skeletal diseases. The ECHO model of learning uses videoconferencing to link participants located anywhere there is an electronic connection. Interactive case-based discussions recapitulate familiar learning methods of postgraduate medical training programs. Since the launch of the first Bone Health TeleECHO (Figures 1 and 2), additional programs have been started in other US states and other countries. This is a report of progress and challenges in the worldwide development of Bone Health TeleECHO.

### **MATERIALS & METHODS**

Registration of UNM HSC Bone Health TeleECHO participants is processed at the ECHO Institute. Demographic information is collected and participation is logged for each session attended. Other Bone Health TeleECHO programs collect data independently through a variety of methods. Sharing of ECHO experiences occurs through webbased postings, personal communications, quarterly collaborative teleconferences, and periodic live ECHO congresses

# RESULTS

The proof-of-concept Bone Health TeleECHO program at UNM HSC was launched on October 5, 2015. Weekly (excluding holidays) videoconferences have been held since that time. Other Bone Health TeleECHO programs are based at locations that include Grand Blanc, Michigan; Washington, DC; Galway, Ireland; and Moscow, Russia. More are anticipated. Challenges for initiating and maintaining these include funding, staffing, recruitment of participants, and bureaucratic barriers.

Figure 1. Map of US Bone Health
TeleECHO Participants. This illustrates the
"hub and spoke" connectivity of participants for a
single ECHO hub. There are other hubs in the US
and in other countries.

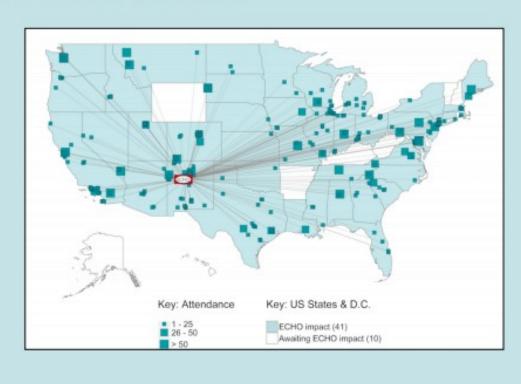
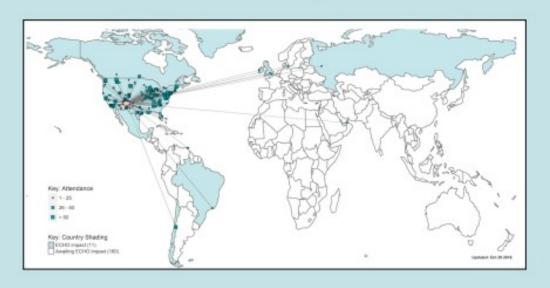


Figure 2. International Connectivity with Bone Health TeleECHO

**Participants.** The world map shows the international reach of a single ECHO hub.



#### DISCUSSION

Bone Health TeleECHO uses state-of-the-art communication technologies to connect participants to a collegial learning environment to advance their level of knowledge, with the goal of making them better equipped to manage patients with bone diseases. It offers educational opportunities with minimal disruption to office routines and relieves professional isolation that commonly occurs in a wide range of practice settings. ECHO hubs for skeletal health education have been launched in several US locations and in other countries. As more hubs are developed in more locations, ECHO serves as a force multiplier to improve osteoporosis care worldwide and help to reduce the osteoporosis treatment gap.

## **SUMMARY**

Through replication and innovation in many global locations, Bone Health TeleECHO leverages scarce resources and expands capacity to provide better bone health care for more patients closer to home, with greater convenience and lower cost than referral to a specialty center. The ECHO model of learning has particular relevance in world regions, such as Asia-Pacific, where cost and inconvenience of travel for on-site medical educational events is high and local expertise in bone diseases may be limited.

## REFERENCES

- 1. Lewiecki EM et al. Bone Health ECHO: telementoring to improve osteoporosis care. Womens Health (Lond Engl). 2016;12(1):79-81. 2. Lewiecki EM et al. Leveraging Scarce Resources With Bone Health TeleECHO to
- Resources With Bone Health TeleECHO to Improve the Care of Osteoporosis. J Endocr Soc. 2017;1(12):1428-1434.
- 3. Lewiecki EM et al. Telementoring: a novel approach to reducing the osteoporosis treatment gap. Osteoporos Int. 2017;28:407-411.
- 4. Lewiecki EM et al. Proceedings of the 2018
  Santa Fe Bone Symposium: Advances in the
  Management of Osteoporosis. J Clin Densitom.
  2019;22(1):1-19.