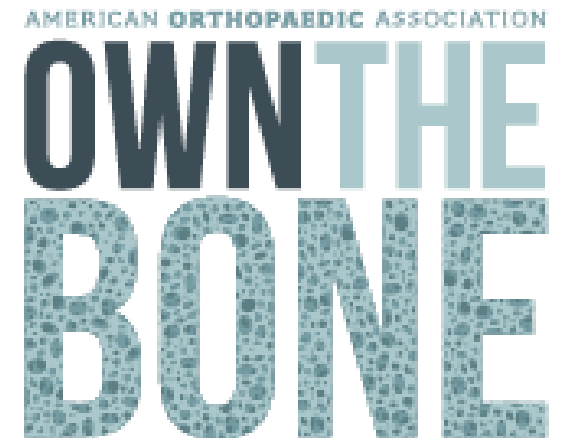


# Own the Bone Registry Overview

Greg Brown, MD, PhD, FAOA

Own the Bone Symposium: Part One

Friday, May 14<sup>th</sup>, 2021



# Disclosures

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- No financial disclosures
- Own the Bone Steering Committee member

# Learning Objective

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- Describe the utility of the Own the Bone online registry.

# Why Own the Bone?

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- Fragility Fractures = “teachable moment”
  - Individuals may be open to change
  - Want to avoid a second fracture
  - Orthopaedic surgeons have a powerful voice

# How does it work?

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- Own the Bone provides an out-of-the-box toolkit for hospitals and practice groups to initiate bone health management of fragility fracture patients
  - Includes a web-based registry to facilitate documentation
  - Allows physician practice groups, and health plans to compare and benchmark their work

# Orthopedists Influence Patients

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- Prospective RCT, N=62
- Osteoporosis assessment initiated by orthopaedic surgeon and f/u with orthopaedic osteoporosis clinic vs usual care (PCP)
- Outcome measure – patients on pharmacologic rx 6 months after fracture: Ortho 58% vs PCP 29% (p=0.04)


Miki *et al*, *J Bone Joint Surg*, 90A(11): 2346-2353, 2008.


# Web-based Patient Registry


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- **Relaunched on the REDCap Cloud platform in 2019**
- **Limited data set (PHI)**
- Designed to facilitate **waived or expedited IRB** process
- Simple data elements / reduced collection time
- Promotes **data gathering and recording**
- **Generates tailored patient education and physician care coordination letters**
- Provides **benchmarking reports**


# Sample View – Site of Fracture

STUDY

SUBJECTS

DATA



INSIGHTS

SUPPORT

OWN THE BONE

DEMO / SANDBOX

Butterworth Hospit... X

 Benjamin Grace  
Admin\_AOA, Site\_A...

Enroll

Events


Subject Matrix

Calendar

Queries

Audit Logs

Event Definition Name: Enrollment

 Save and Mark as Complete Save and Exit Return

Version: original

Subject ID: 00009-000166

Event Date: 04-19-2021

Demographics

Current Fracture

Fracture History

Risk Factors

Medication Use (History)

Counseling

Pharmacologic Treatment

Bone Mineral Density Testing

Written Communication and Discharge

Please describe the site of the current fracture(s) by checking all of the primary fracture sites that apply.

Primary Site(s)

Primary Site(s) of Current Fracture(s) (check all that apply):\*

☐ Shoulder

☐ Arm (Humeral Shaft)

☐ Elbow

☐ Forearm (Radius/Ulna Shaft)

☒ Wrist

☐ Spine

☐ Ribs

☐ Pelvic Ring

☐ Hip

☐ Thigh (Femoral Shaft)

☐ Knee

☐ Leg (Tibia/Fibular Shafts)

☐ Ankle/Foot

Reset

Subsite(s)

Wrist Subsite(s) (check all that apply):\*

☒ Distal Radius

☐ Carpal Bones

Back

Next



# Sample View – BMD Testing



STUDY

SUBJECTS

DATA

INSIGHTS

SUPPORT

OWN THE BONE

DEMO / SANDBOX

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Demographics

Current Fracture

Fracture History

Risk Factors

Medication Use (History)

Counseling

Pharmacologic Treatment

**Bone Mineral Density Testing**

Written Communication and Discharge

**Bone Mineral Density Testing**

Was Bone Mineral Density (BMD) testing recommended to patient?\*

☒ Yes

☐ No

☐ No-Not Indicated

Reset

☒ Performed

☐ Planned/Scheduled

☐ Not Performed or Planned

☐ N/A (BMD has been tested within the past two years)

Reset

Date of BMD Test:

04-16-2021

14

**BMD Score(s)**

	T-Score Range: (-5,5)	BMD g/cm2 Range: (0,3)	Positive T-Score Value Confirmation
Lumbar Spine	<div>-2.5</div>	<div></div>	
Femoral Neck	<div>-3.3</div>	<div></div>	
Distal Forearm (If spine and/or hip technically not available):	<div></div>	<div></div>	

Type of Densitometer:

Hologic

Save and Mark as Complete


Save and Exit

Return


Back

Next


# Sample View – Follow up Form




STUDY




SUBJECTS



DATA



INSIGHTS





SUPPORT

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Follow-Up

To be completed by phone or follow-up visit with the patient.

Patient Status

Date of Follow-up:\*





Did the patient expire within 90 days of fracture, prior to all or part of follow-up being performed?

☐ Yes

☐ No

Reset





Was this patient lost to follow-up?

☐ Yes

☐ No

Reset



Check the appropriate box for Yes or No. If the patient does not know the answer check Unknown. If you did not address the question with the patient, leave the answer blank.



Patient Survey

Have you seen a doctor other than your orthopaedic surgeon since you were discharged?

☐ Yes

☐ No

Reset





Have you had a bone density test? (also called DXA or DXA scan)

☐ Yes

☐ No

Reset






Have you and your doctor discussed that since you had a fracture (broken bone), you are likely to fracture again?

☐ Yes

☐ No

☐ Unknown





Save and Mark as Complete

Save and Exit

Return

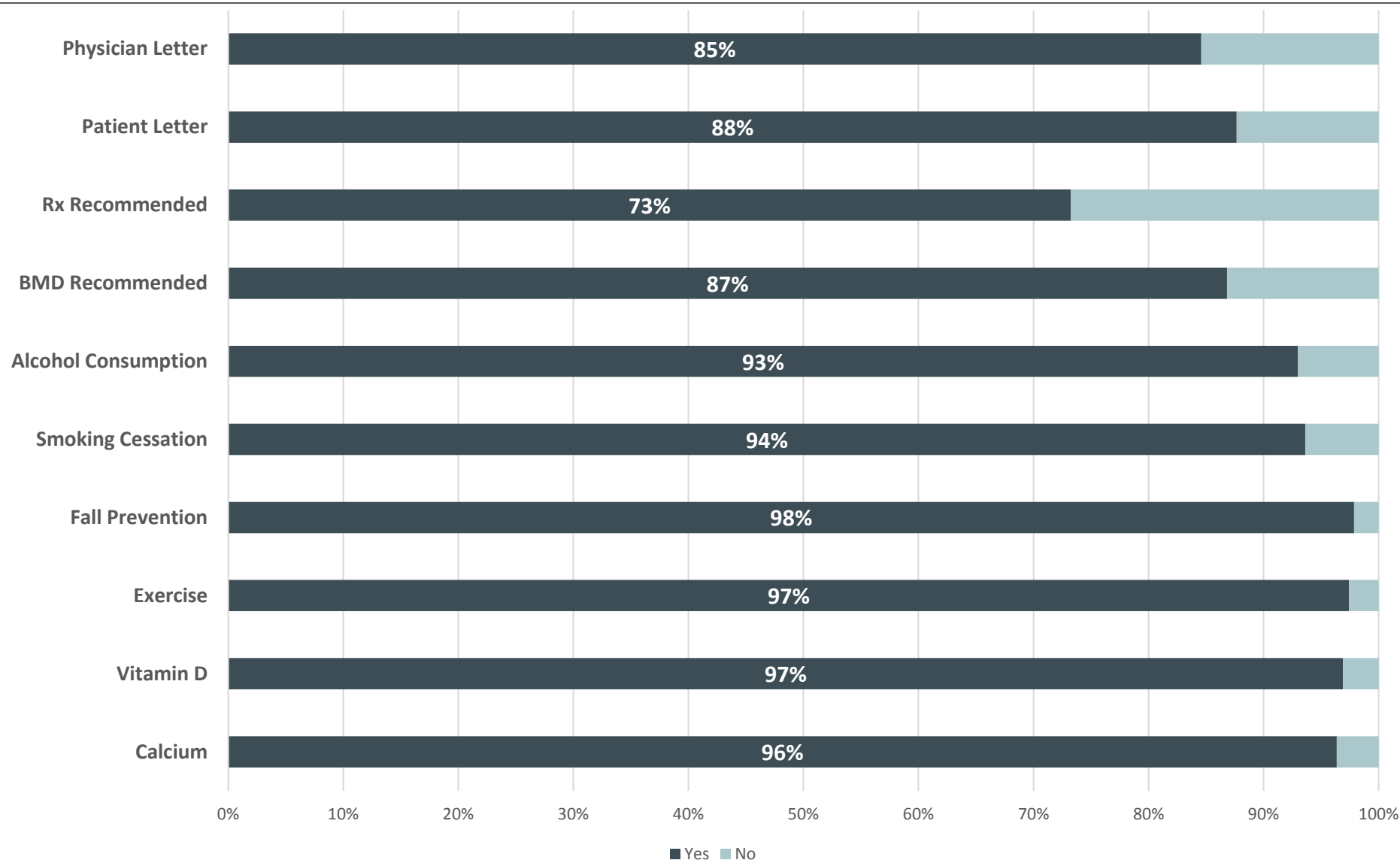
# Web-based Patient Registry

Case Report Form – Initial	Case Report Form – Follow up
Patient Age Patient Sex Female patient pre/postmenopausal status Patient Race/ethnicity Patient Height Patient Weight Site of current fracture History of previous fracture after age 50 Lifestyle risk factors Medication risk factors Medical diseases/disorder risk factors Previous osteoporosis medications use <b>Counseling on calcium</b> <b>Counseling on vitamin D</b> <b>Counseling on exercise</b> <b>Counseling on fall prevention</b> <b>Counseling on smoking cessation</b> <b>Counseling on alcohol moderation</b> <b>Counseling on pharmacotherapy</b> Initiation of pharmacotherapy Medication initiated <b>Counseling on BMD testing</b> Status of BMD testing BMD score <b>Communication with patient education letter/instructions</b> <b>Communication with PCP/specialist</b>	Follow up completion date Status of bone health consultation Status of BMD testing BMD score PCP/specialist communication on increased fracture risk PCP/specialist communication on steps to reduce fracture risk Follow up exercise Follow up fall prevention Follow up smoking cessation Follow up alcohol moderation Follow up calcium Follow up vitamin D Follow up pharmacotherapy for osteoporosis Medication being taken

# Ten Measures

NUTRITION COUNSELING	1	Calcium supplementation
	2	Vitamin D supplementation
PHYSICAL ACTIVITY COUNSELING	3	Weight-bearing and muscle-strengthening exercise
	4	Fall Prevention education
LIFESTYLE COUNSELING	5	Smoking cessation
	6	Limiting excessive alcohol intake
PHARMACOTHERAPY	7	Pharmacotherapy
TESTING	8	Testing Bone mineral density testing: DXA (Dual Energy X-Ray Absorptiometry)
COMMUNICATION	9	Physician referral letter to report the patient's fragility fracture, risk factors, and recommendations for treatment
	10	Patient education letter to explain bone health risk factors and recommendations for treatment

# Site Compliance in Aggregate



# QPP 24 – Communication Post-Fracture

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**Quality ID #24: Communication with the Physician or Other Clinician Managing On-Going Care Post-Fracture for Men and Women Aged 50 Years and Older**  
– National Quality Strategy Domain: Communication and Care Coordination  
– Meaningful Measure Area: Transfer of Health Information and Interoperability

**2021 COLLECTION TYPE:**

**MIPS CLINICAL QUALITY MEASURES (CQMS)**

**MEASURE TYPE:**

Process – High Priority

**DESCRIPTION:**

Percentage of patients aged 50 years and older treated for a fracture with documentation of communication, between the physician treating the fracture and the physician or other clinician managing the patient's on-going care, that a fracture occurred and that the patient was or should be considered for osteoporosis treatment or testing. This measure is submitted by the physician who treats the fracture and who therefore is held accountable for the communication

# QPP 418 – Post-Fracture OP Management

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**Quality ID #418 (NQF 0053): Osteoporosis Management in Women Who Had a Fracture**

- National Quality Strategy Domain: Effective Clinical Care
- Meaningful Measure Area: Management of Chronic Conditions

**2021 COLLECTION TYPE:**

**MIPS CLINICAL QUALITY MEASURES (CQMS)**

**MEASURE TYPE:**

Process

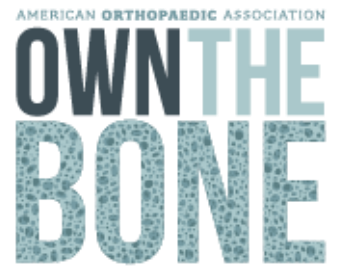
**DESCRIPTION:**

The percentage of women age 50-85 who suffered a fracture in the six months prior to the performance period through June 30 of the performance period and who either had a bone mineral density test or received a prescription for a drug to treat osteoporosis in the six months after the fracture



# OMW HEDIS measure

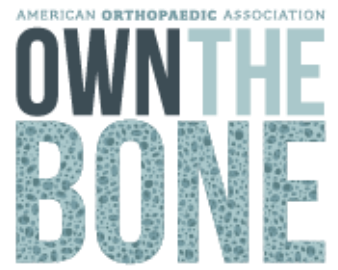
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- Healthcare Effectiveness Data & Information Set – performance measures for health plans
- *Osteoporosis Management in Women Who Had a Fracture:* Assesses women 65–85 years of age who suffered a fracture and who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the six months after the fracture.



# Letters for Patients and PCPs



- Generate, then save or print letters with custom patient data to communicate education to patients and PCPs.
- Data are automatically piped into the letters.

AMERICAN ORTHOPAEDIC ASSOCIATION  
**OWN THE BONE**

04-19-2021

Dear \_\_\_\_\_:

You have recently broken a bone, known to doctors as a "fragility fracture". Because you have had one fragility fracture, you have a higher risk of having more broken bones in the future. You may also have osteoporosis or low bone density which can lead to osteoporosis.

*There are important steps you can take to reduce your risk of another broken bone. You can start now to improve your bone health.* It is important for you to talk about this fracture with all of the health care providers who treat you for any condition – even after your broken bone has healed. You and your health care providers can improve the health of your bones and reduce your risk of another break.

*Here are some important questions to ask your doctor:*

1. What should I do now to reduce my risk of another broken bone?
2. Please tell me about a bone density test. Do I need this test?
3. Should I be taking calcium and/or vitamin D? If so, how much and how often?
4. Please tell me about medicines to reduce fracture risk.
5. What are some exercises that I can do to help my muscles and bones get stronger? How often should I exercise?
6. Please tell me about fall prevention, stopping smoking, and reduced alcohol drinks. How do they reduce my risk of another broken bone?

To help your doctor provide you with the best possible care, take this letter with you to your next appointment. These details will be useful to your physician:

- I broke my: *Wrist (Distal Radius)*
- My risk factors are: *History of Falls (2 or more in preceding year), Parental History of Hip Fracture After the Age of 50.*
- I am currently taking, or have taken, the following medicines which increase my risk for osteoporosis: *Selective serotonin reuptake inhibitors (SSRIs).*
- I have taken the following medicines to treat osteoporosis in the past: *Calcium, Vitamin D*
- I have *recently started taking RANKL Inhibitor | Denosumab (Prolia®)* to strengthen my bones.
- *I had a bone density test on 04-16-2021 with the following results: lumbar spine T-Score: -2.5; lumbar spine BMD: g/cm<sup>2</sup>; femoral neck T-Score: -3.3; femoral neck BMD: g/cm<sup>2</sup>; distal forearm T-Score: ; distal forearm BMD: g/cm<sup>2</sup>. The test was done on a/an Hologic type densitometer.*

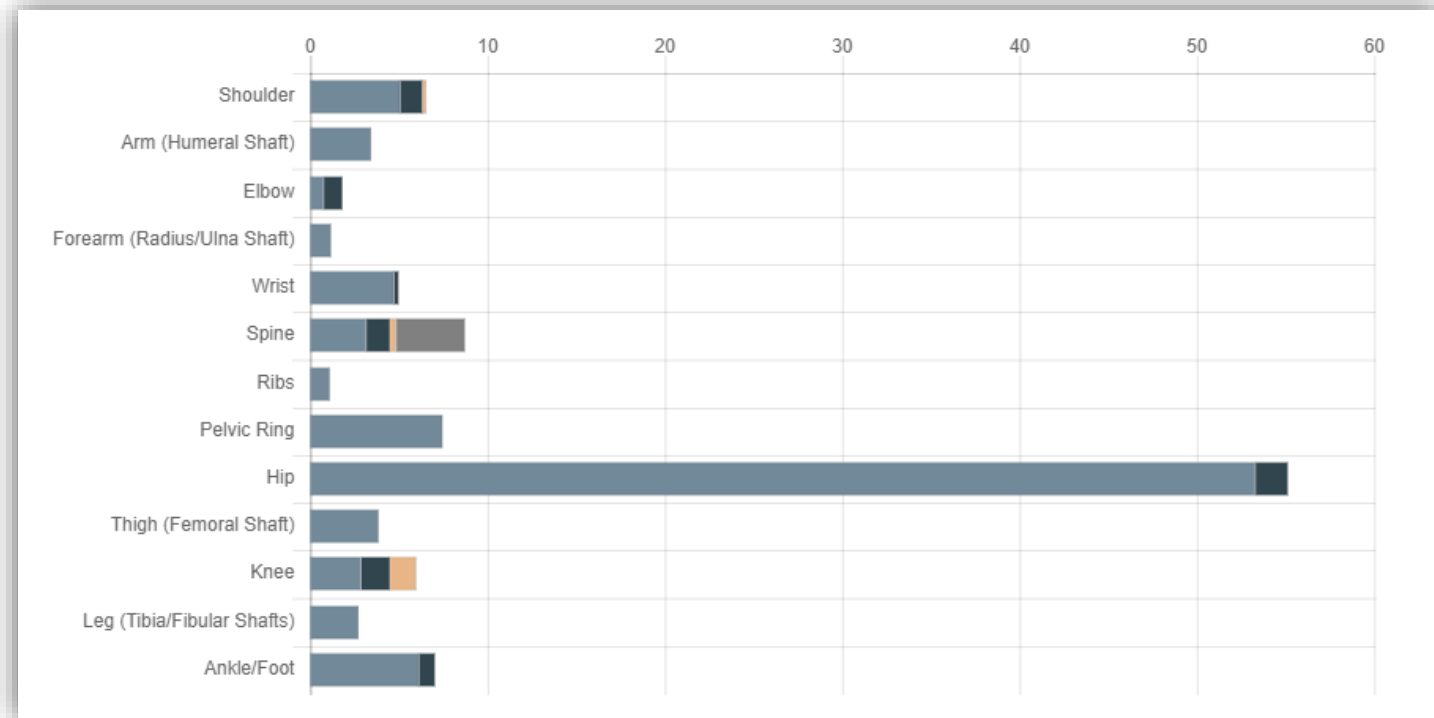
Taking these steps can help prevent future fractures and protect your health, ability to move, and improve your independence.

Want to learn more about osteoporosis and bone health before your next appointment? Visit the National Osteoporosis Foundation (NOF) online at [www.nof.org](http://www.nof.org) or call 1-800-223-9994. Or visit the National Institute of Health Osteoporosis National Resource Center at <http://www.bones.nih.gov> or call 1-800-624-BONE (2663) for more resources.

Sincerely,

# Standard Reports

- Compliance of Own the Bone's 10 measures
- Benchmarking
- Patient Demographics
- Site of Fracture
- Follow-up Reports



# REDCap Cloud Report Wizard

- Create custom reports
- Drag-and-drop variables, select and set filters
- Build your own report library
  - Share or email reports
  - Run reports on a set schedule or on-demand

► Global Filters (optional, expand to see all)

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Step 1 - Fields to include in report

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Instrument Name:

Step 2 - Filters (optional)

---

Select Events

Step 3 - Order the Results (optional)

---

<input type="text"/>	Ascending <input type="text"/>
<input type="text"/>	Ascending <input type="text"/>
<input type="text"/>	Ascending <input type="text"/>

# Data Import Tool

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- REDCap Cloud feature to bypass webform manual data entry
- Subject data may be imported in small or large batches, directly from a .csv spreadsheet file
- Not compatible with direct import from electronic medical record systems

# Learn More

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- Contact the Own the Bone team
  - [ownthebone@aoassn.org](mailto:ownthebone@aoassn.org)
- Attend a free virtual demo/training session
  - Next session: May 24<sup>th</sup> at 1:00pm ET
  - Sign up at [www.ownthebone.org](http://www.ownthebone.org)