

# Growth Charts

## 1. WELCOME

Dear Colleague:

You are being contacted through [surveymonkey.com](http://surveymonkey.com) at the e-mail address identified in your professional organization directory to participate in this important study regarding growth chart usage among clinicians. You are receiving it as you are identified as an academic or practicing community physician in Kentucky.

Although you will not get personal benefit from taking part in this study, your responses may help us understand more about how clinicians use available materials to measure and track growth in children and adolescents. It will also help us understand challenges you may face in transitioning this practice to electronic health records.

We hope to receive completed questionnaires from about 400 people, so your answers are important to us. Of course, you have a choice whether or not to participate in this anonymous survey; if you do participate, you are free to skip any questions or discontinue at any time. There are no anticipated risks to participating in this study.

The survey will take about 10 minutes to complete. There are no costs to you for participating in the study, nor will you receive any reward for participating in the study. Your response to the survey is anonymous and all results will only be disclosed in aggregate. No identifying information about you will appear or be used in research documents, presentations or publications. The research team will not know that any information you provided came from you, nor even whether you participated.

If you have questions about the study, please feel free to contact Neelkamal Soares, MD, FAAP at [nsoar2@uky.edu](mailto:nsoar2@uky.edu). If you have complaints, suggestions, or questions about your rights as a study participant, please contact the University of Kentucky Office of Research Integrity at 859-257-9428 or toll-free at 1-866-400-9428.

Thank you in advance for your assistance with this important project.

Sincerely,

Neelkamal Soares, MD, FAAP  
University of Kentucky College of Medicine  
859-323-6426  
[nsoar2@uky.edu](mailto:nsoar2@uky.edu)

# Growth Charts

## 2. DEMOGRAPHICS

We would like to collect some general information about you and your practice.

### Are you a...

- Pediatrician
- Family Practitioner

### Are you...

- Board-certified
- Board-eligible
- Neither

### What is your practice type?

- Academic
- Private Solo Practice
- Private Group Practice
- Hospital-based Group Practice

### Which best describes the location of your clinical practice?

- Urban
- Semi-urban
- Rural

### How many years have you been practicing?

- 0-5 years
- 6-10 years
- 11-15 years
- More than 15 years

# Growth Charts

## 3. DEMOGRAPHICS

**What is the average number of patients you see per week?**

- Less than 50
- 51-100
- 101-150
- More than 150

**What percentage of your practice is:**

	<25%	25-50 %	51-75 %	>75%
Medicare/Medicaid:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Private Insurance:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Uninsured:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**At which visits do you record growth in your practice?**

- Well-child visits only
- Sick and well-child visits

**Among the ages provided below, choose the range that most accurately describes the populations for which you record growth:**

- 0-24 months
- 0-36 months
- 2-20 years
- Other age range (specify)

# Growth Charts

## 4. GROWTH CHARTS

Growth charts are used by health care professionals as a quantitative and qualitative tool for constructing a clinical impression for infant, child, and adolescent growth. We would like to know how you utilize growth charts in your clinical practice.

### From where do you acquire your growth charts (check all that apply)?

- Professional organization (AAP/AAFP)
- Commercial source
- Centers for Disease Control and Prevention (CDC)
- World Health Organization (WHO)
- Not sure
- Other (please describe)

### How do you acquire your growth charts?

- Free
- Purchased

### Who acquires the growth charts for your practice (check all that apply)?

- Clinician
- Resident/Trainee
- Nurse
- Clerical/Managerial staff
- Other

### Who completes the growth charts (check all that apply)?

- Clinician
- Resident/Trainee
- Nurse
- Clerical staff
- Other (please specify)

# Growth Charts

**How does your office record data on the growth charts?**

- Paper
- Electronically
- Both
- Neither

## 5. GROWTH CHARTS

**Do you provide copies of growth charts to parents at the end of their visit?**

- Yes
- No

## 6. GROWTH CHARTS

**If yes, which of the following do you discuss with parents (check all that apply)?**

- BMI (Body Mass Index)
- Height
- Weight
- Head circumference
- Nutritional status

## 7. GROWTH CHARTS

**Which growth chart do you use for infants of very low birth-weight (check all that apply)?**

- WHO only
- CDC only
- Infant Health and Development Program (IHDP)
- None of the above

**Do you use different charts to plot the growth of formula-fed and breast-fed infants?**

- Yes
- No



# Growth Charts

## 8. GROWTH CHARTS

### If yes, which?

	CDC only	WHO only	Both CDC and WHO	Neither CDC nor WHO
Formula fed:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Breast-fed:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### In which of the following have you observed weight loss after birth?

- Breastfed-only
- Formula-fed only
- Both breastfed and formula-fed
- Neither breastfed nor formula-fed

### Read each of the following statements and select among the choices.

	Strongly Agree	Agree	Disagree	Strongly Disagree
I believe CDC growth charts overdiagnose underweight-infants and younger children.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe CDC growth charts underdiagnose underweight-infants and younger children.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I believe CDC growth charts accurately diagnose underweight-infants and younger children.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### With which of the following growth charts are you aware?

- CDC only
- WHO only
- Both CDC and WHO
- Aware of neither CDC nor WHO

### Which of the following growth charts do you use?

- CDC only
- WHO only
- Use both CDC and WHO
- Use neither CDC nor WHO

## 9. GROWTH CHARTS

**Among the ranges provided below, which most accurately describe the populations for which you use the WHO growth charts?**

- For all ages
- 0-2 years
- 2-4 years
- 4-8 years
- WHO growth charts are optional for clinicians

# Growth Charts

## 10. GROWTH CHARTS

**Which of the following growth charts do you use for children <24 months in your practice?**

- CDC only
- WHO only
- Both CDC and WHO
- Neither CDC nor WHO

**Have you encountered any obstacles in utilizing current growth charts?**

- CDC only
- WHO only
- Both CDC and WHO
- Neither CDC nor WHO

**With which would you find most useful in understanding the implementation of WHO charts?**

- Presentation at meeting
- Online training module (e.g., Medscape)
- Electronic video (e.g., YouTube) Standardized in-person field-training
- Brochure/Manual
- Other (please describe)

**I perceive limitations in the use of current growth charts:**

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

**Do you believe that growth charts are a reliable predictor of relative health for your pediatric population?**

- Yes
- No

## 11. ELECTRONIC MEDICAL RECORDS (EMR)

We would like to know about the use of electronic medical records in your practice.

### **Do you use electronic medical records (EMR)?**

Yes

No

# Growth Charts

## 12. ELECTRONIC MEDICAL RECORDS (EMR)

**If yes, write the name of the platform (if known).**

**If yes, do you prefer EMR to paper medical records?**

- Yes
- No
- No preference

**How often do you re-check EMRs with paper copies of growth charts?**

- Very often
- Somewhat often
- Not very often
- Not at all

**Do you utilize electronic documentation for plotting routine growth measurements?**

- Yes
- No

**How do you incorporate growth chart records into EMR?**

- Scan as an image/document
- Use existing platform software
- Do not incorporate electronically

**Do you believe that electronically recorded growth charts are more reliable than paper copies?**

- Much more
- Somewhat more
- Not very
- Not at all

## 13. ELECTRONIC MEDICAL RECORDS (EMR)

**If no, how likely are you to adopt EMR in the upcoming year?**

- Very likely
- Somewhat likely
- Unlikely
- Very unlikely

**Do you believe that electronically recorded growth charts are more reliable than paper copies?**

- Much more
- Somewhat more
- Not very
- Not at all

# Growth Charts

## 14. ELECTRONIC MEDICAL RECORDS (EMR)

**I believe electronic growth charts would improve: (select among the following options)**

	Strongly Agree	Agree	Disagree	Strongly Disagree
Clinician satisfaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parent satisfaction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clinical efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reduction in clinical errors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accuracy for special populations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Education for parents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transition between WHO and CDC charts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>