

# Supplementary Fetal Growth Curves

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The following growth curves are described in the manuscript entitled “Quantitative Standards for Fetal and Neonatal Autopsy.” While the tables in the manuscript are better suited for displaying these numerical data, some may still prefer charts, hence the reason for this document.

Most of these curves are constructed from regressions on data from multiple sources, and the remaining curves are derived from a single source. All sources studied non-macerated tissue examined at autopsy and excluded fetuses with obvious malformations. (The one exception to this rule is hand length at later ages, which incorporates data from normal live births.) Thus, these standards are designed to show whether various measurements obtained at autopsy are normal when compared to other seemingly normal fetuses examined at autopsy.

The dotted, dash-dotted, and dashed lines correspond to plus or minus 1.00, 1.28, and 1.64 standard deviations, respectively. Assuming the data are normally distributed, these lines also correspond with 16–84<sup>th</sup>, 10–90<sup>th</sup>, and 5–95<sup>th</sup> percentiles, respectively. Note that standard deviation data is not available for philtrum length, chest circumference, abdominal cir-

cumference, small intestine length, and large intestine length.

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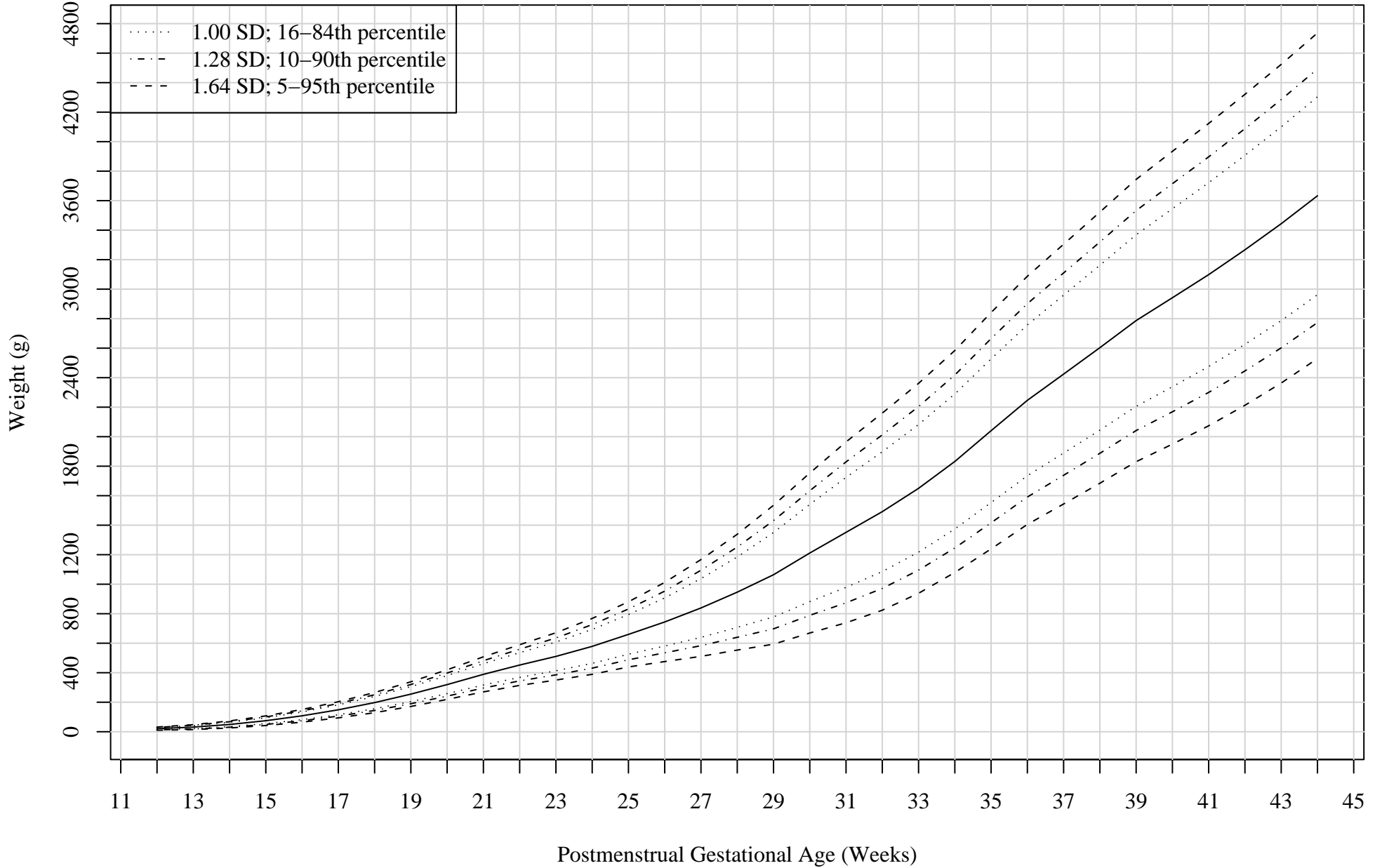
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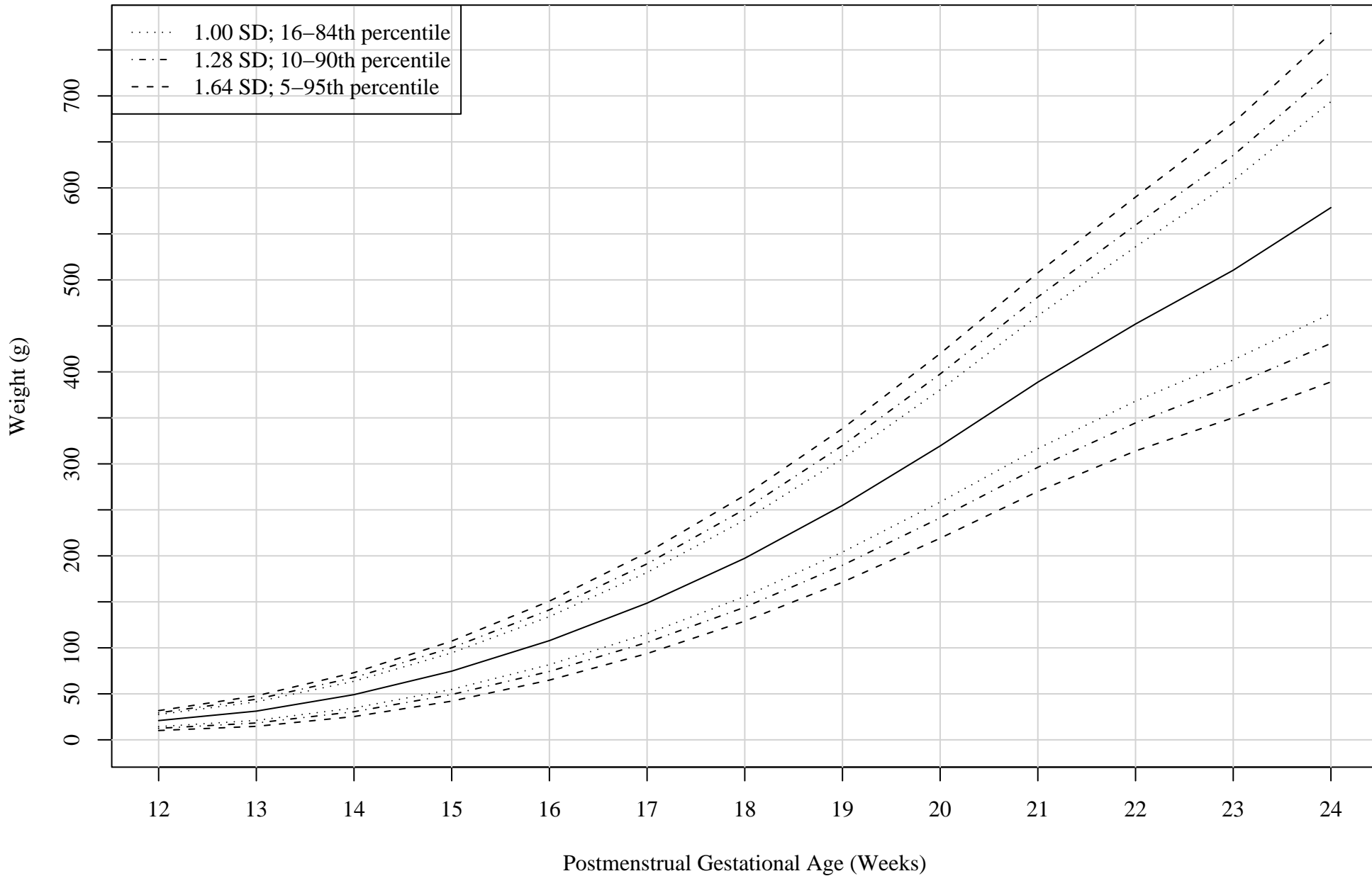
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## Body Weight (12–44 Weeks)



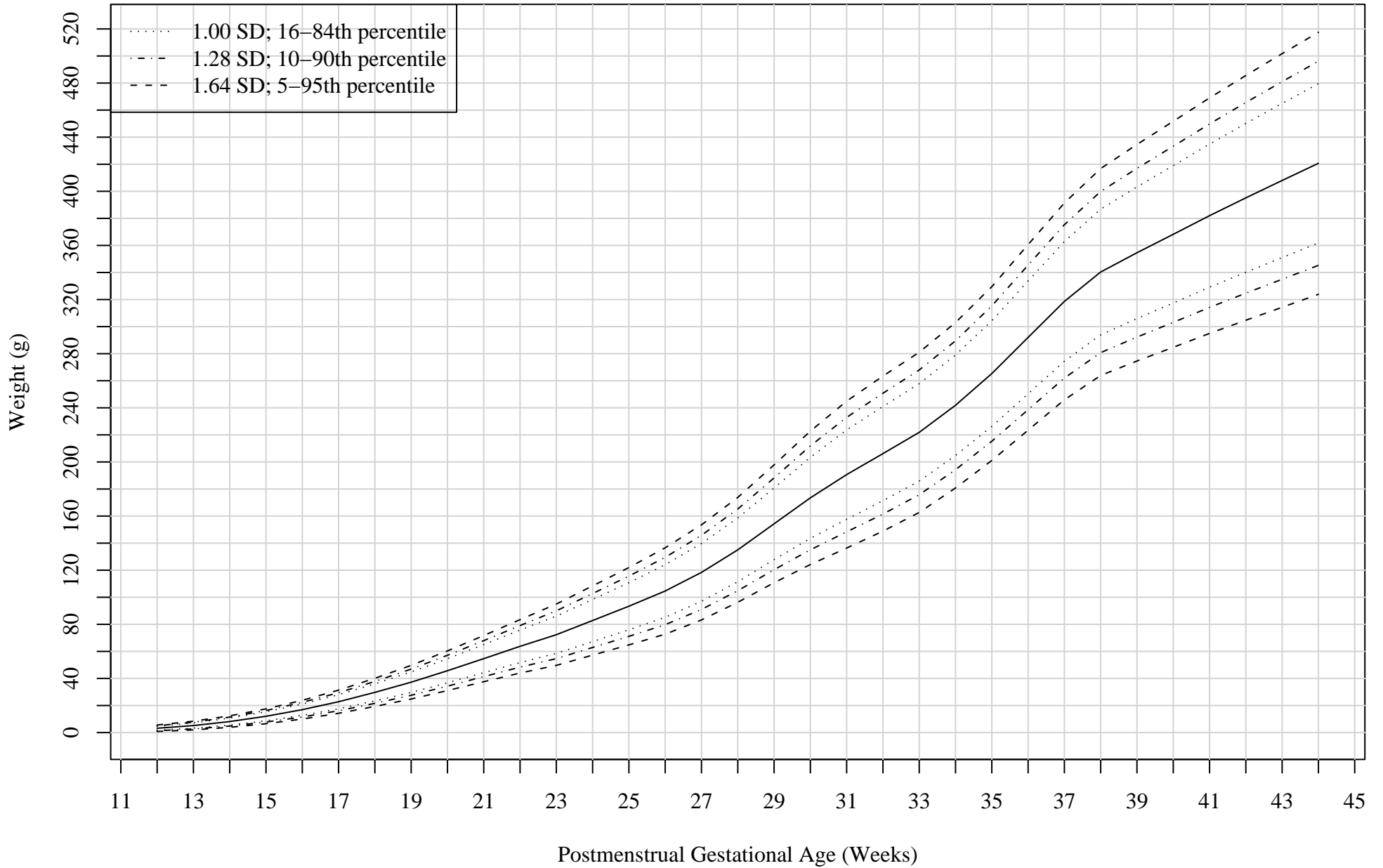
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), and Wigglesworth and Singer (1991)

### Body Weight (12–24 Weeks)



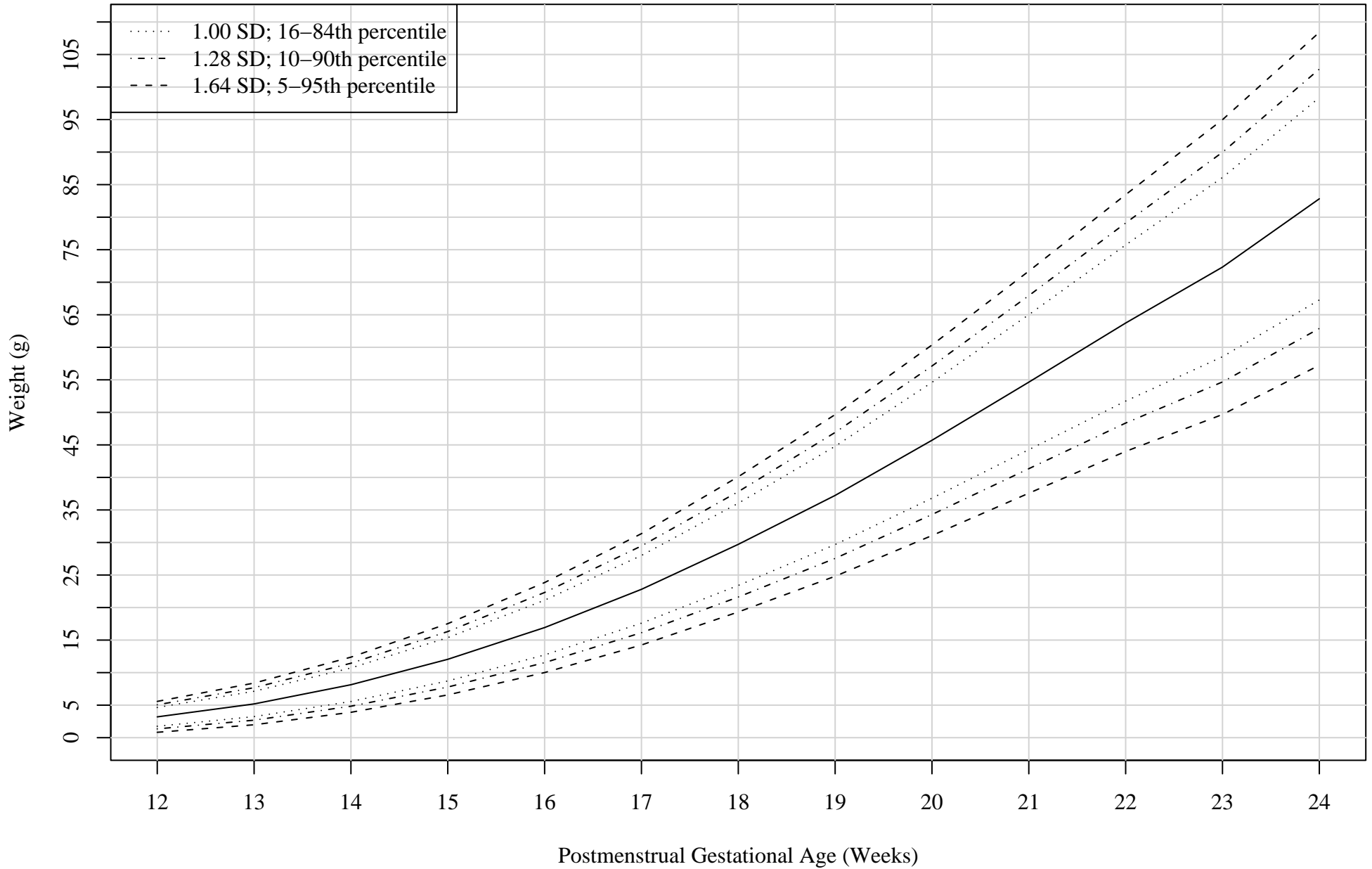
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), and Wigglesworth and Singer (1991)

## Brain Weight (12–44 Weeks)



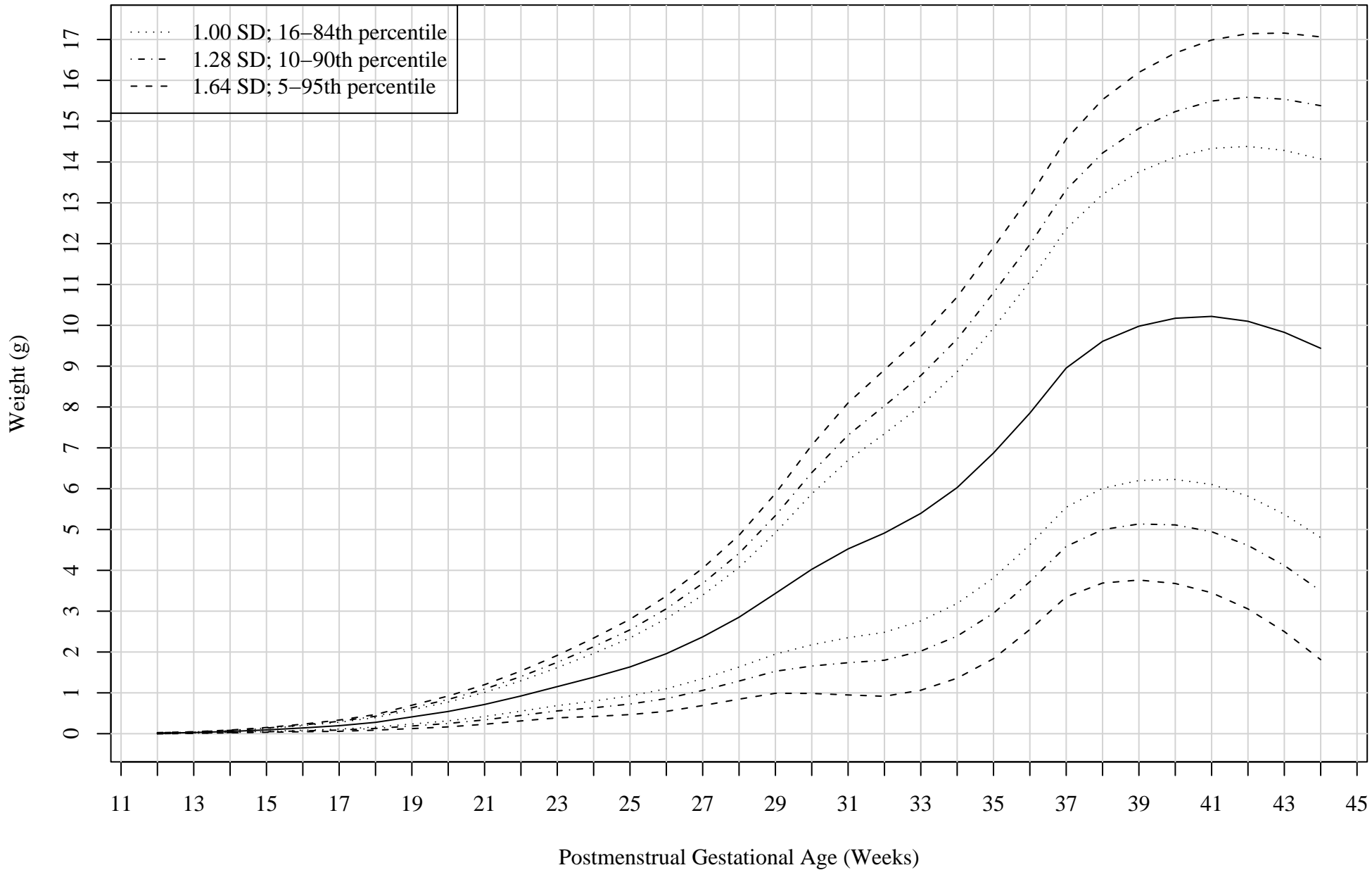
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

## Brain Weight (12–24 Weeks)



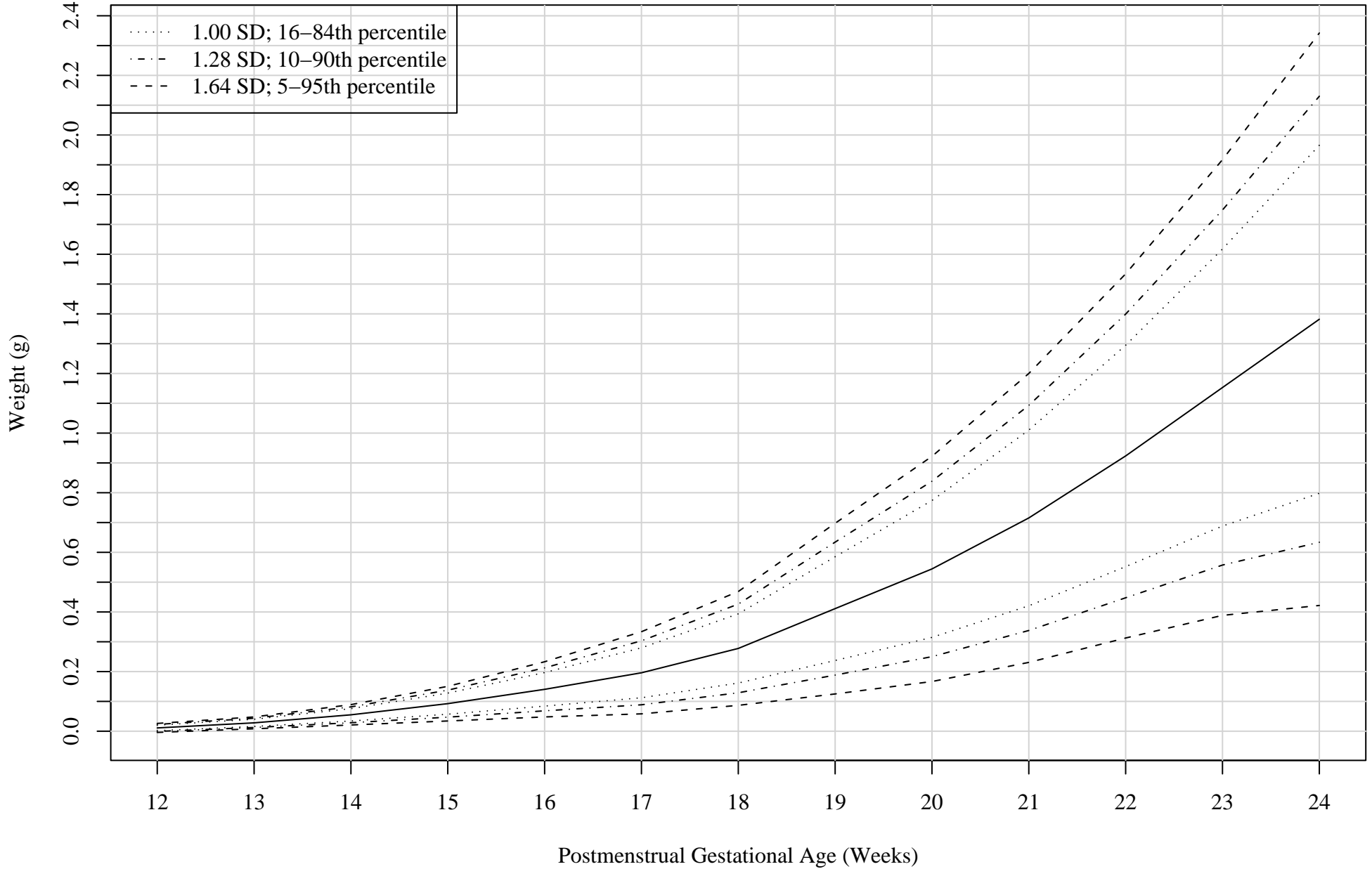
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

### Thymus Weight (12–44 Weeks)



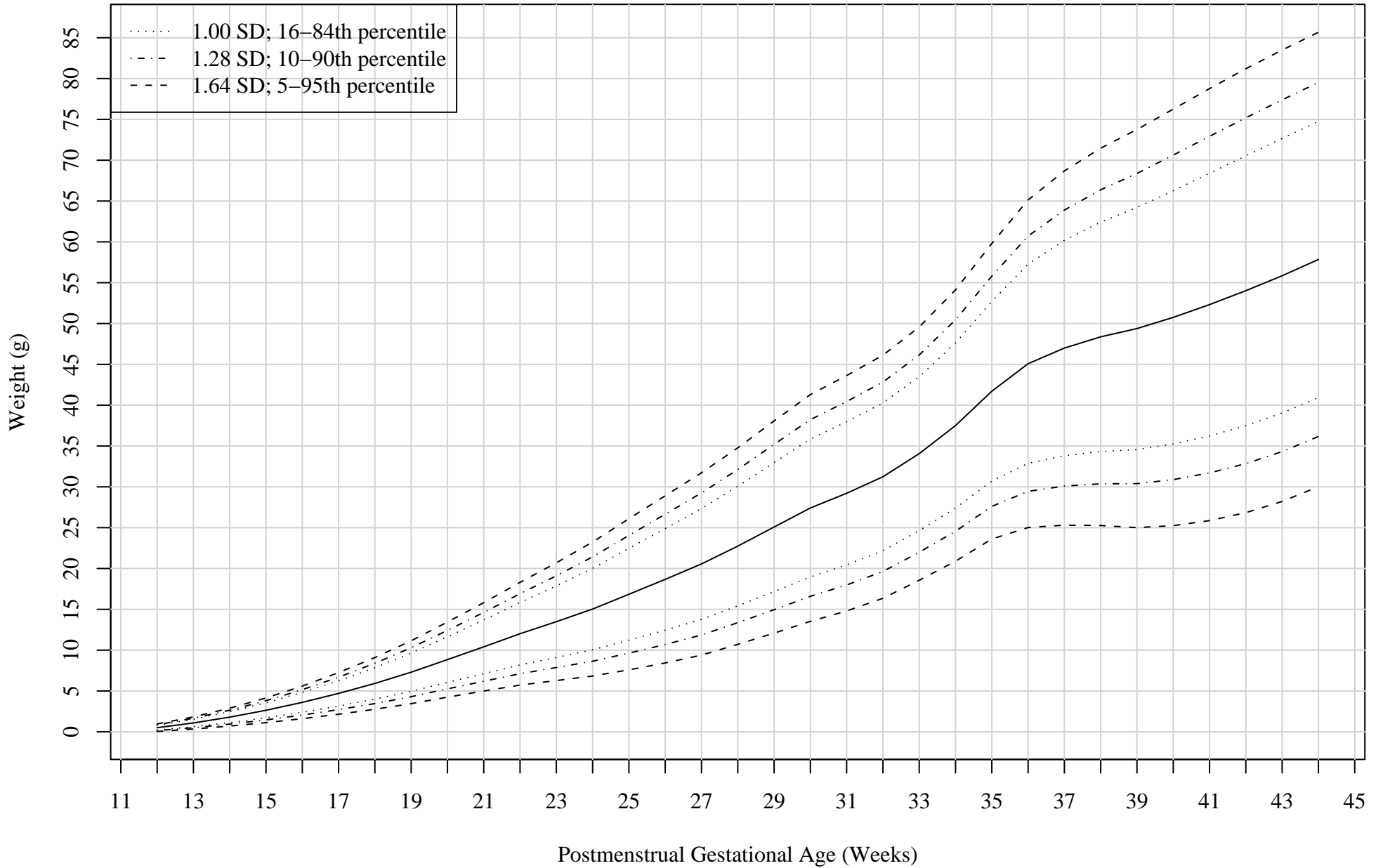
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

## Thymus Weight (12–24 Weeks)



Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

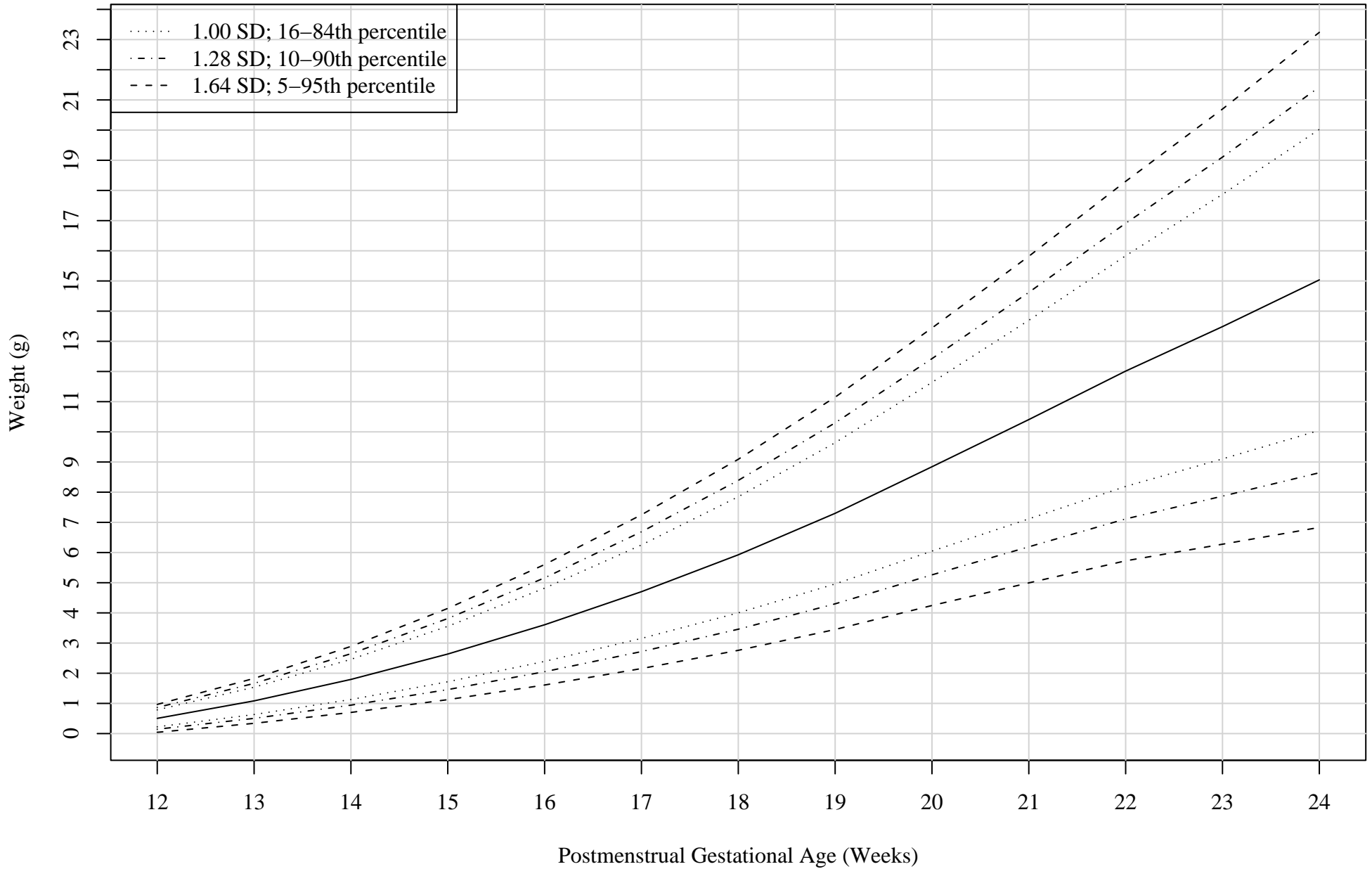
## Lung Weight (12–44 Weeks)



Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

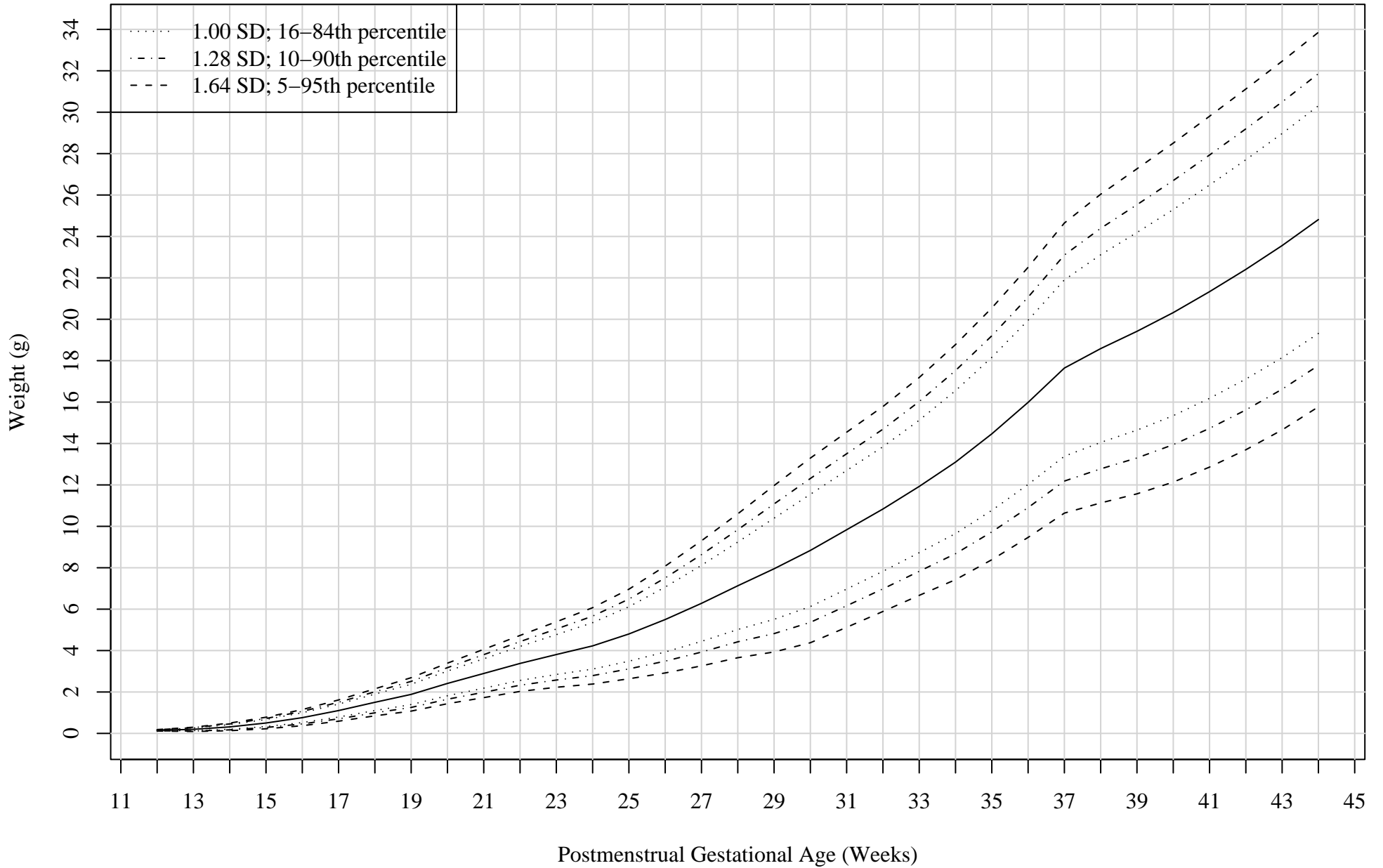


## Lung Weight (12–24 Weeks)



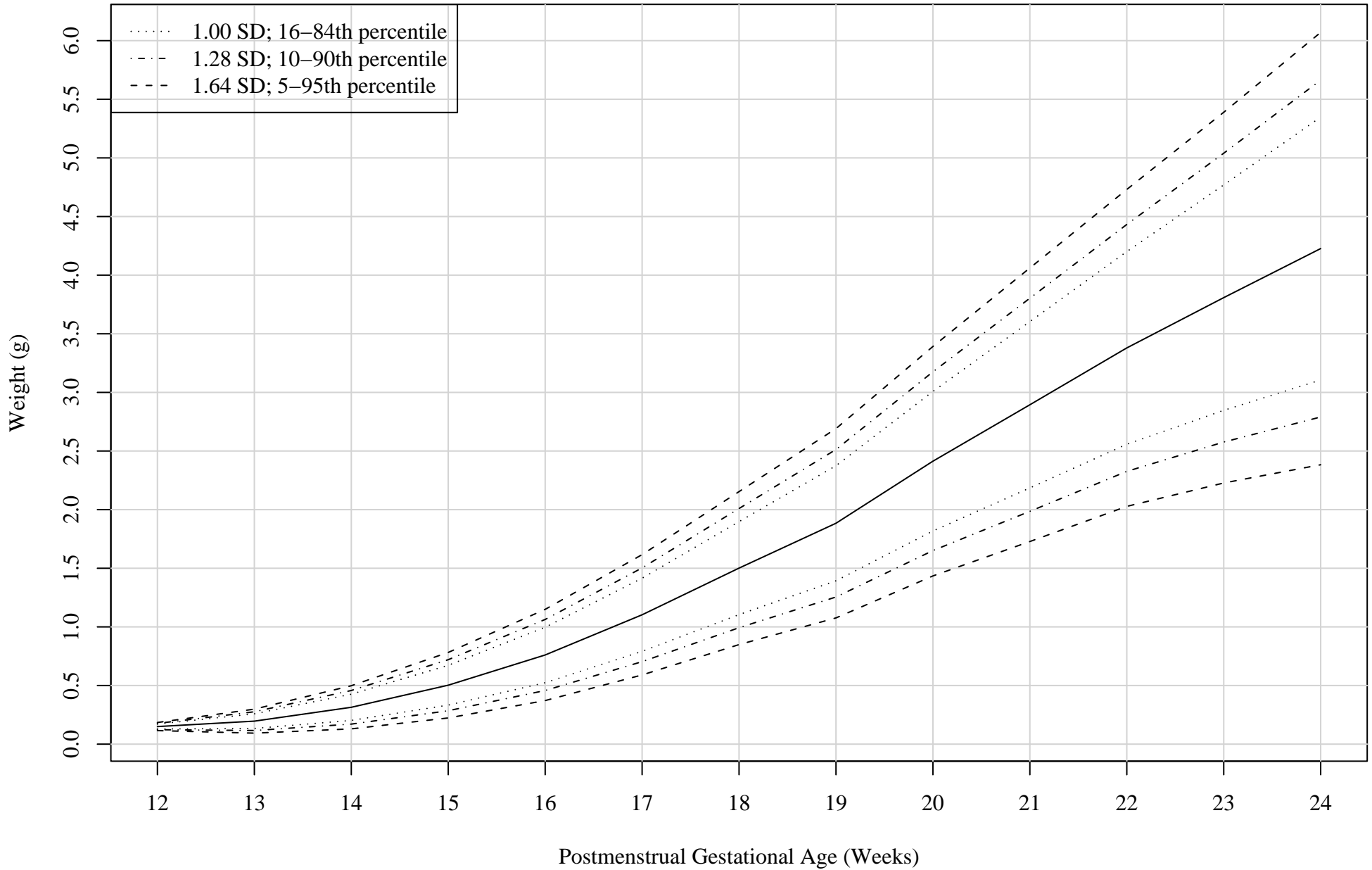
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

## Heart Weight (12–44 Weeks)



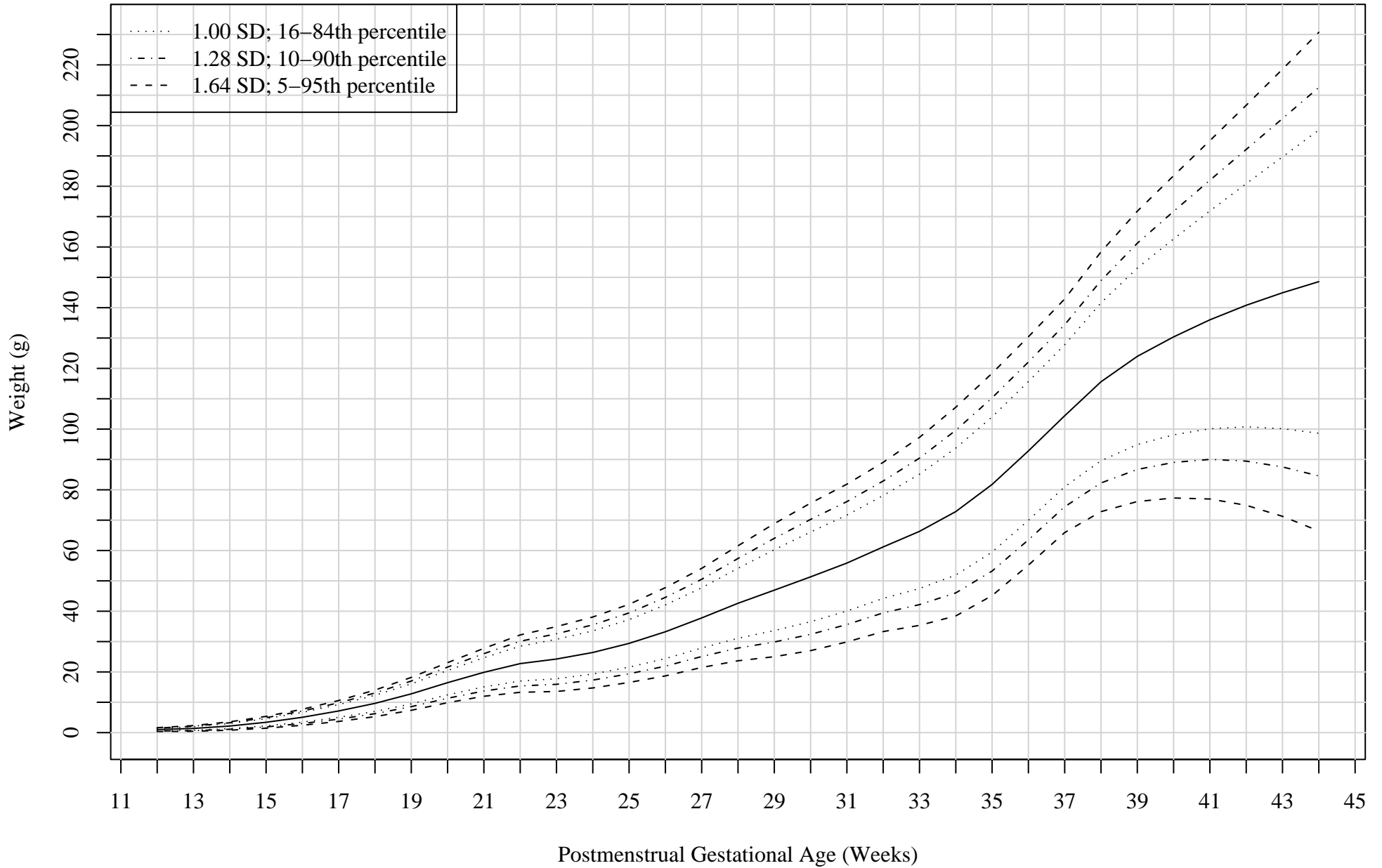
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

## Heart Weight (12–24 Weeks)



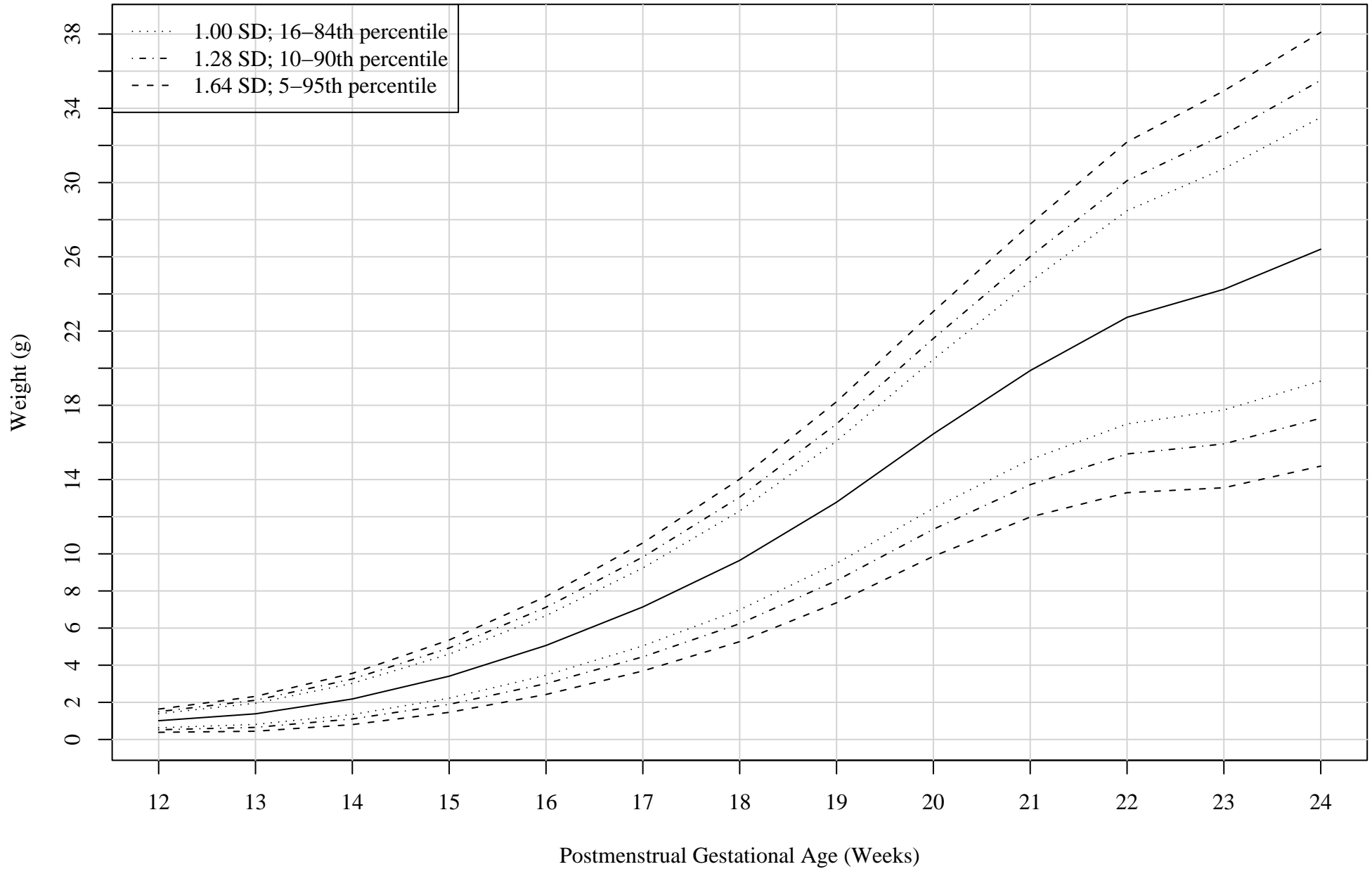
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

## Liver Weight (12–44 Weeks)



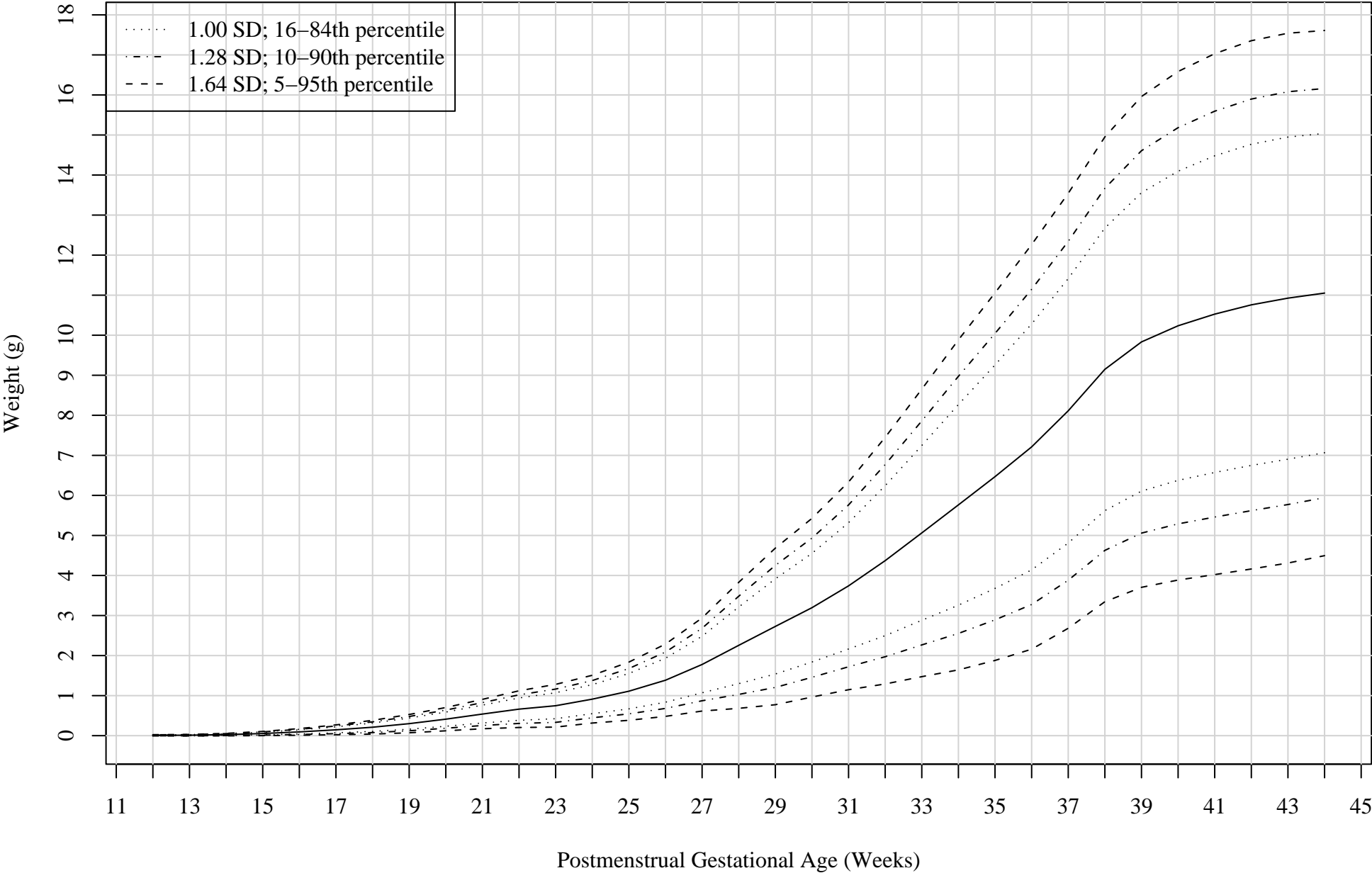
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

## Liver Weight (12–24 Weeks)



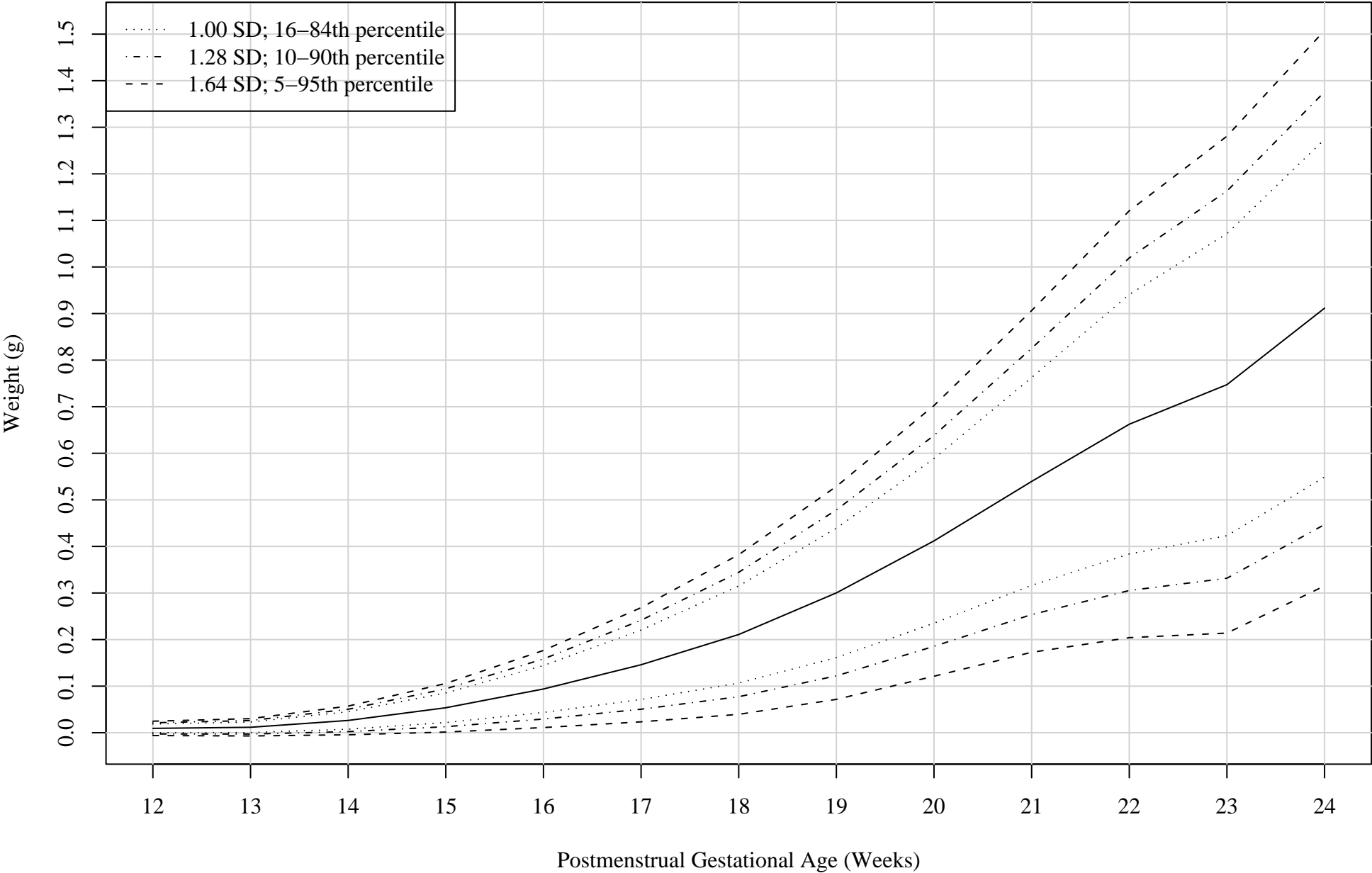
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

### Spleen Weight (12–44 Weeks)



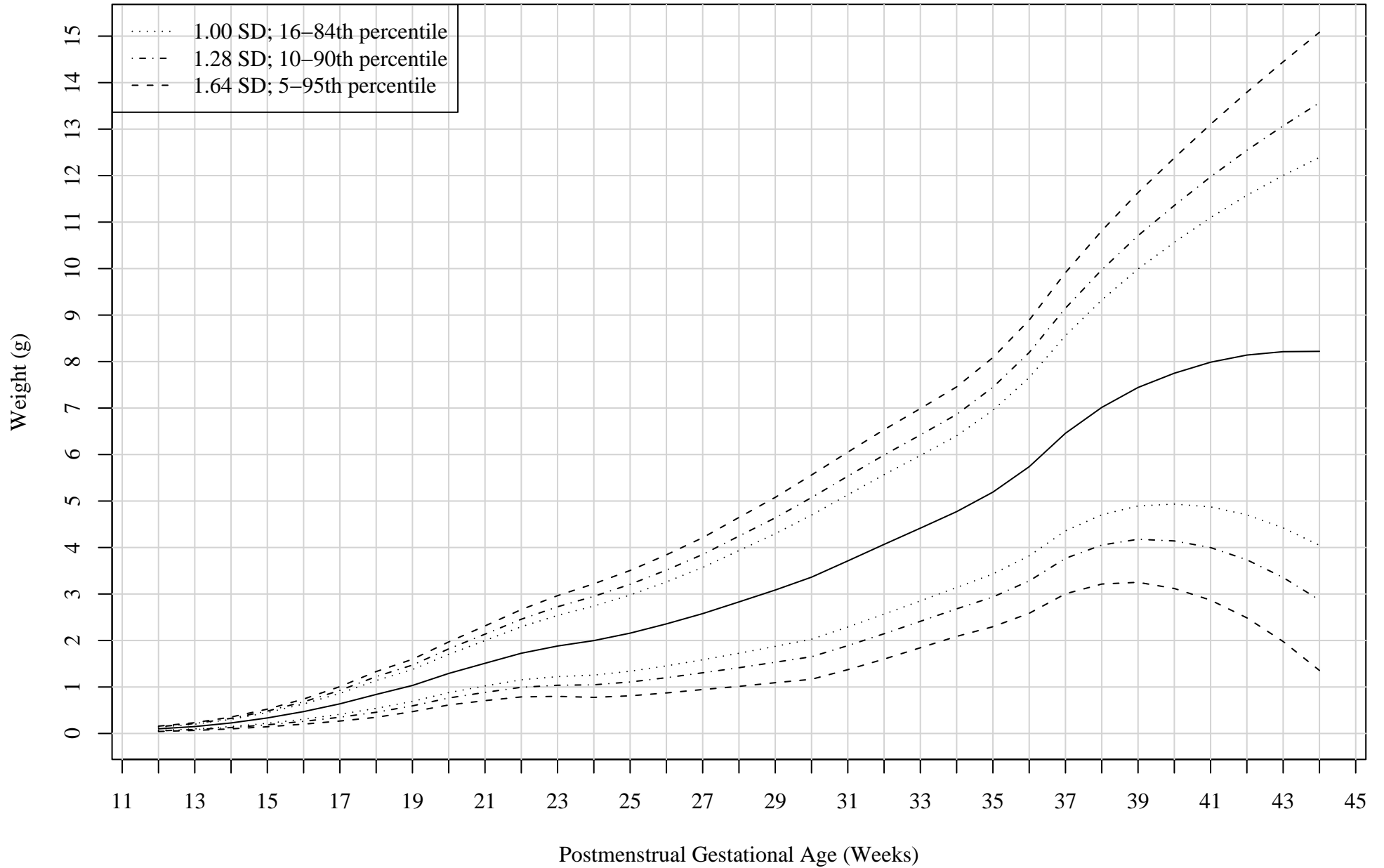
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

### Spleen Weight (12–24 Weeks)



Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

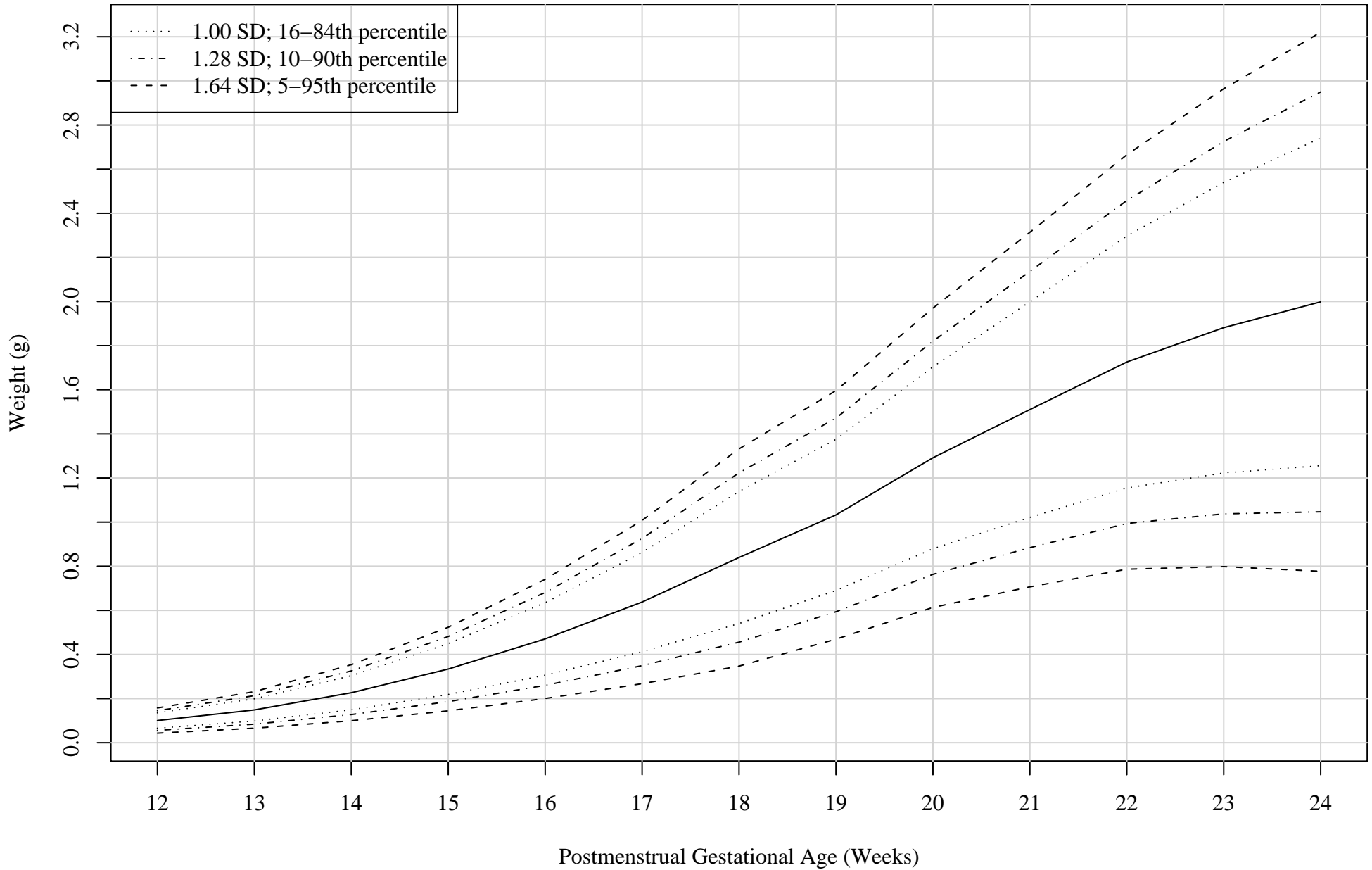
## Adrenals Weight (12–44 Weeks)



Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

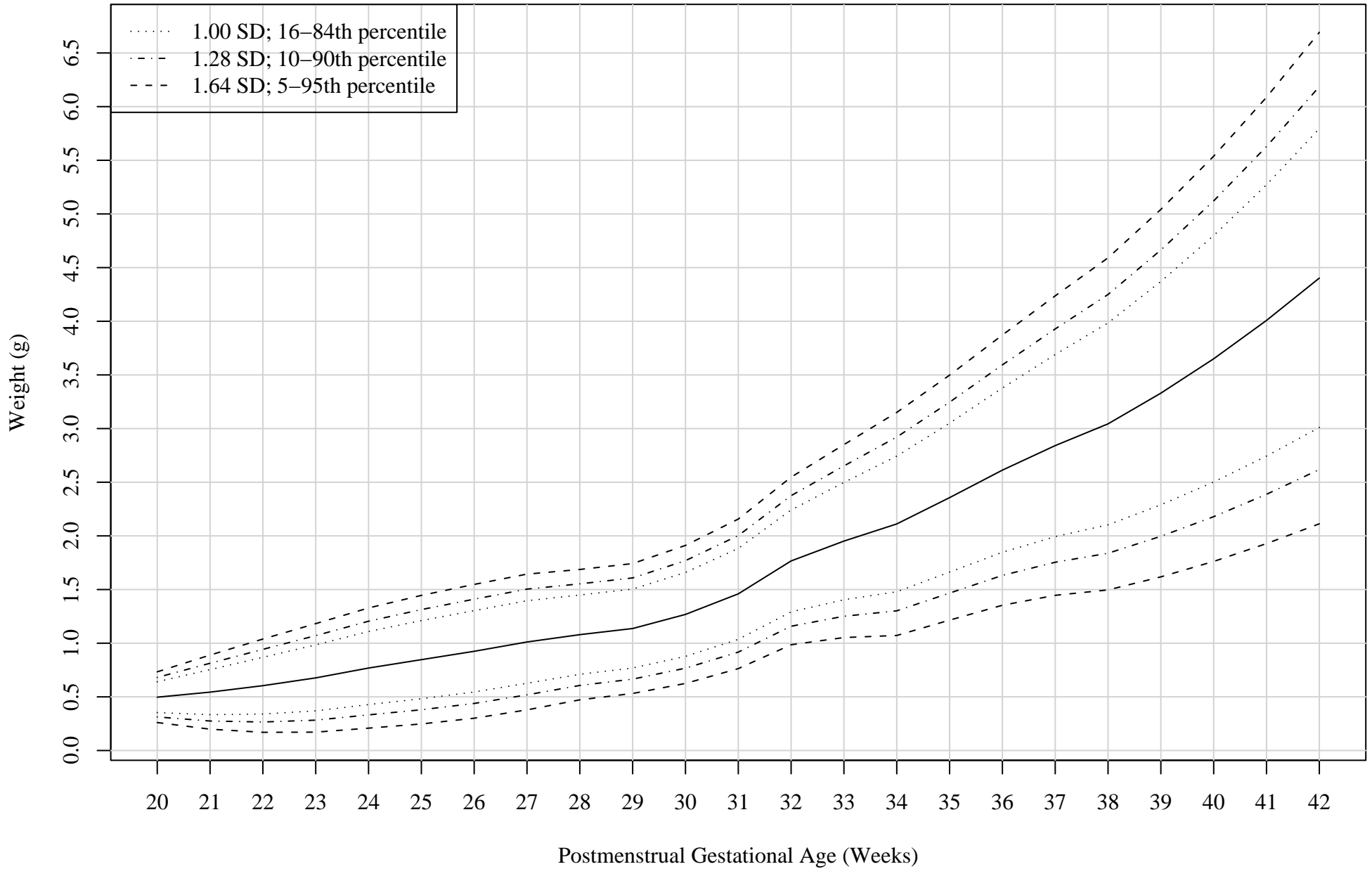


## Adrenals Weight (12–24 Weeks)



Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

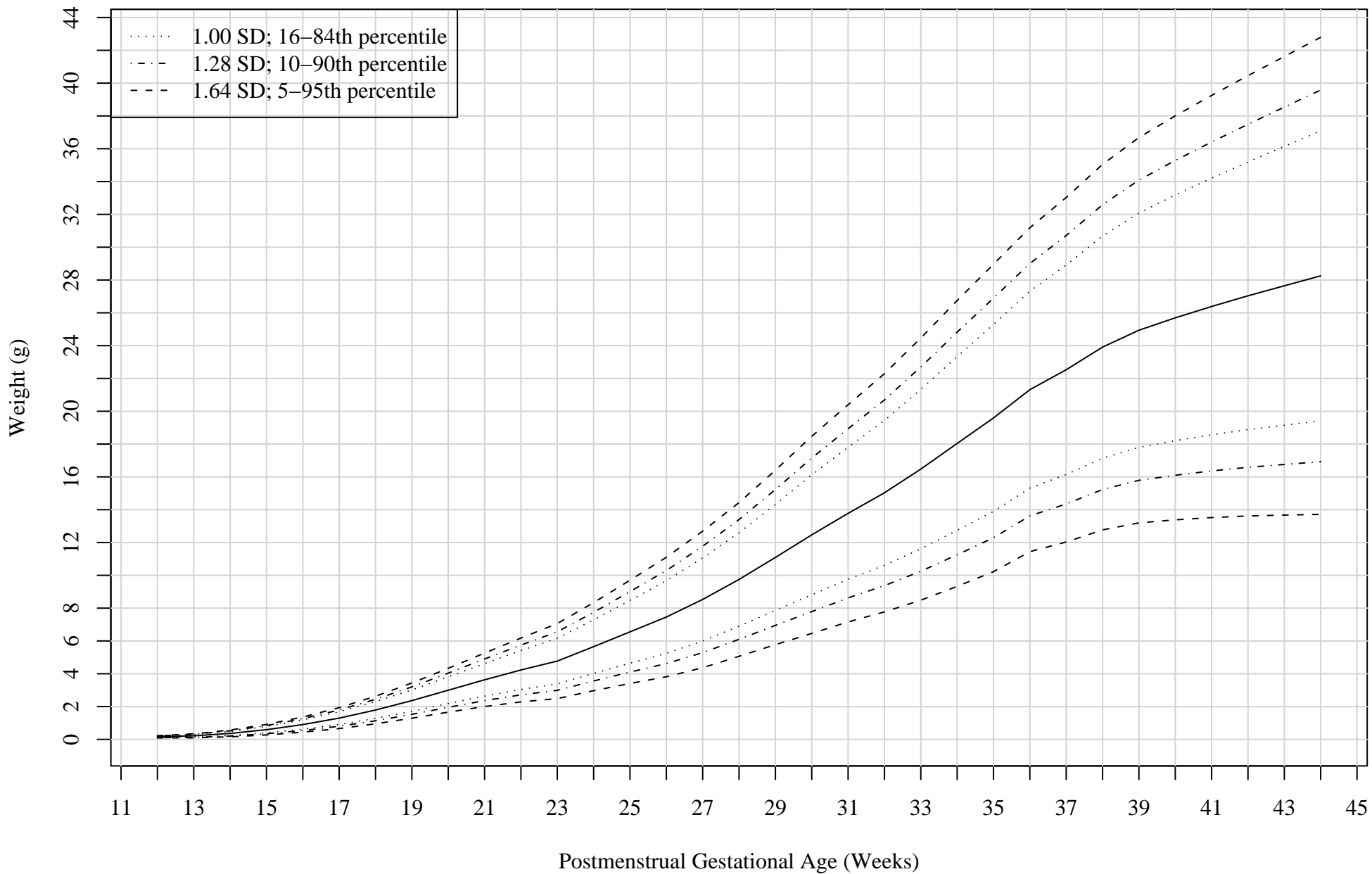
## Pancreas Weight (20–42 Weeks)



Source: Wigglesworth and Singer (1991)

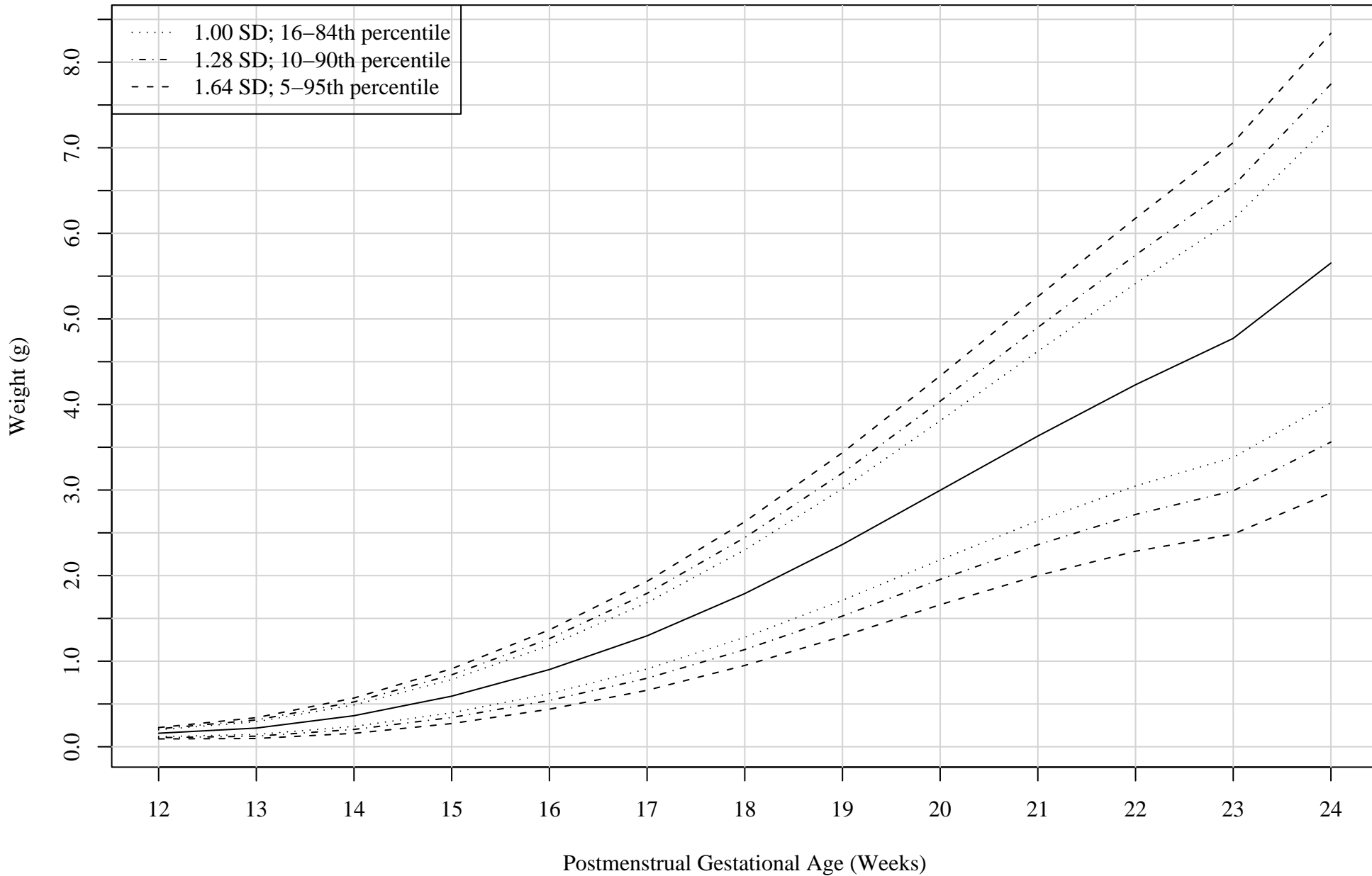
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### Kidney Weight (12–44 Weeks)



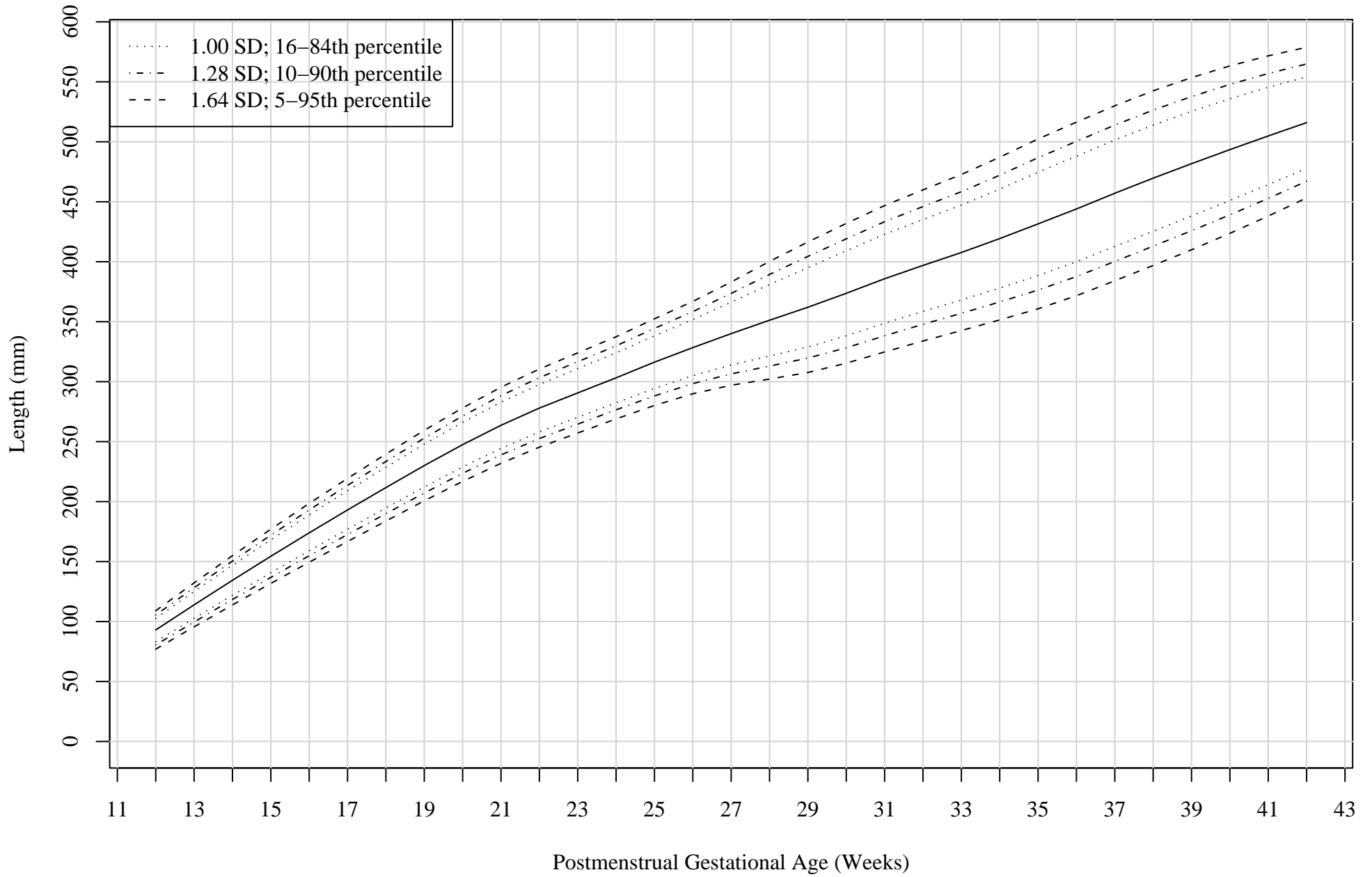
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

### Kidney Weight (12–24 Weeks)



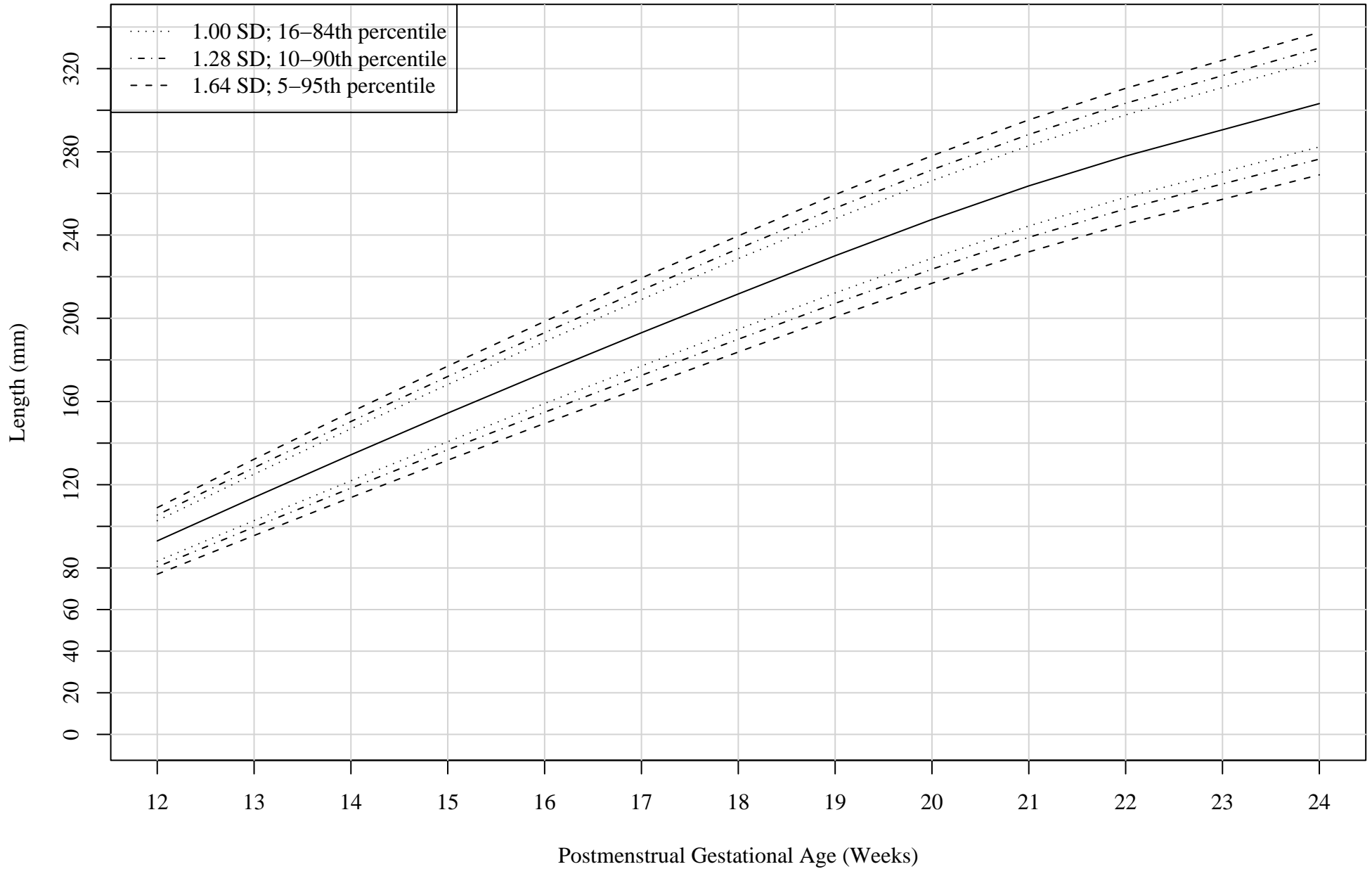
Sources: Cussen et al. (1990), Gruenwald and Minh (1960), Hansen et al. (2003), Larroche (1977), and Wigglesworth and Singer (1991)

### Crown-Heel Length (12–42 Weeks)



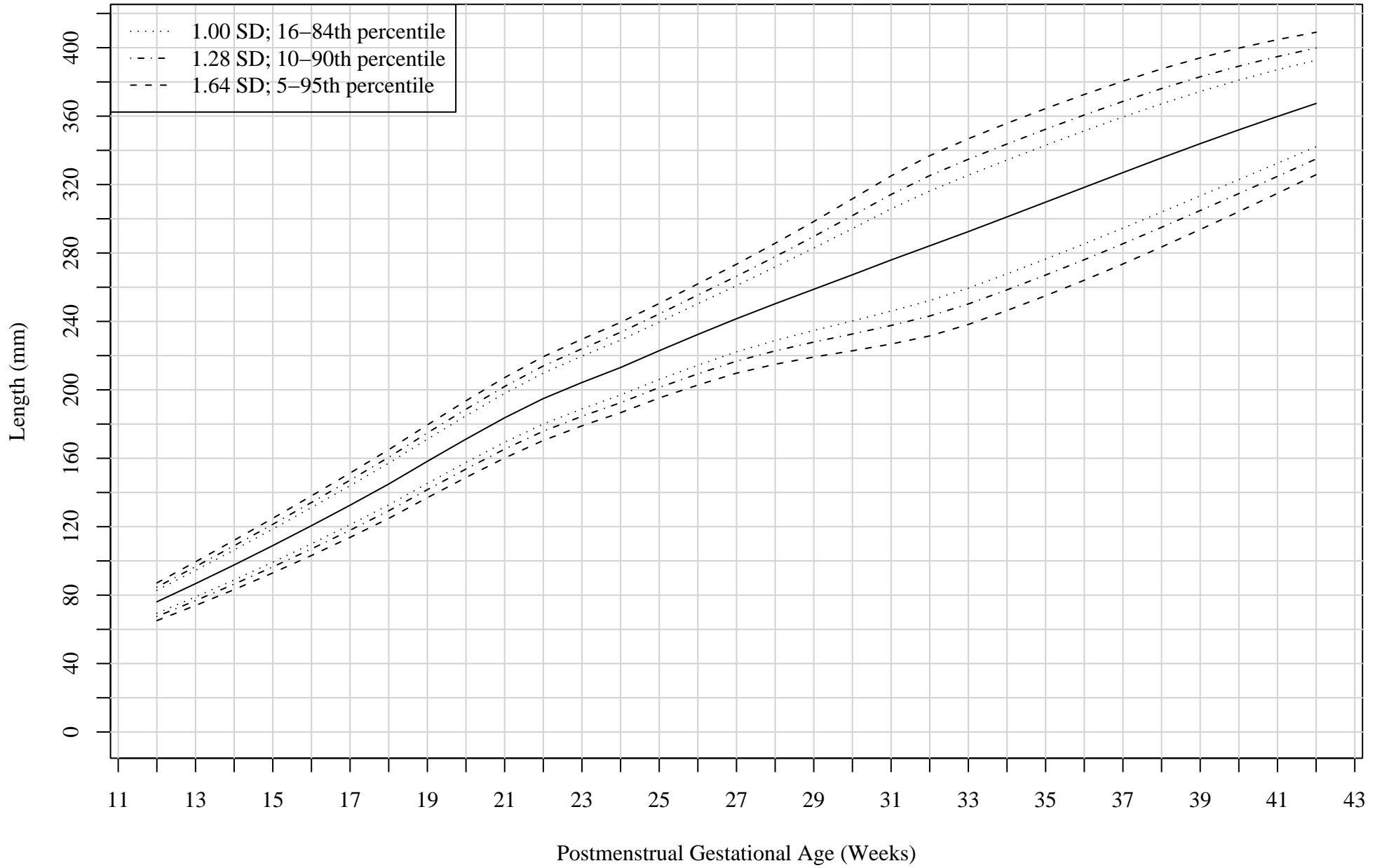
Sources: Cussen et al. (1990), Hansen et al. (2003), and Wigglesworth and Singer (1991)

### Crown-Heel Length (12–24 Weeks)



Sources: Cussen et al. (1990), Hansen et al. (2003), and Wigglesworth and Singer (1991)

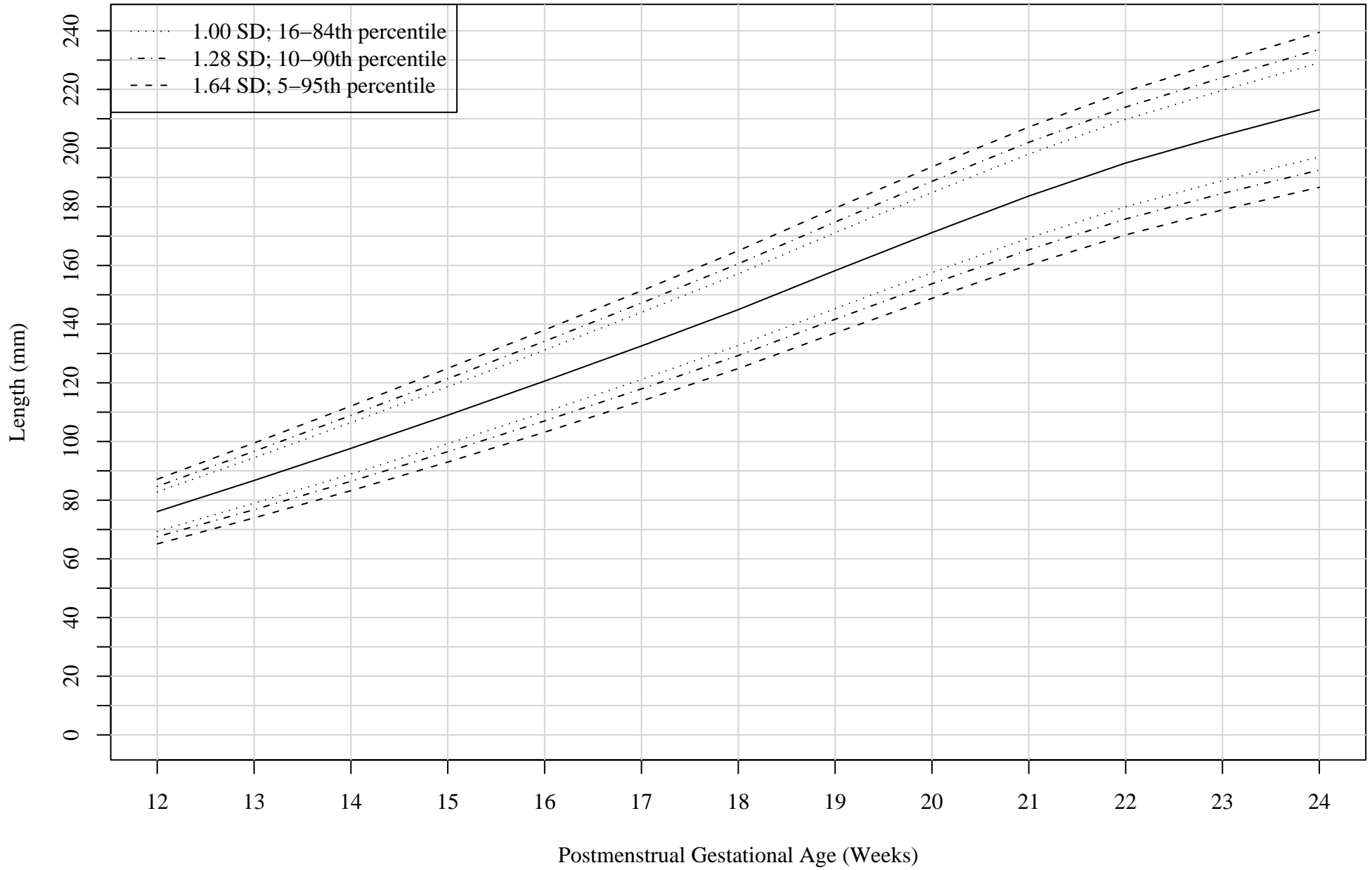
### Crown–Rump Length (12–42 Weeks)



Sources: Cussen et al. (1990), Hansen et al. (2003), and Wigglesworth and Singer (1991)

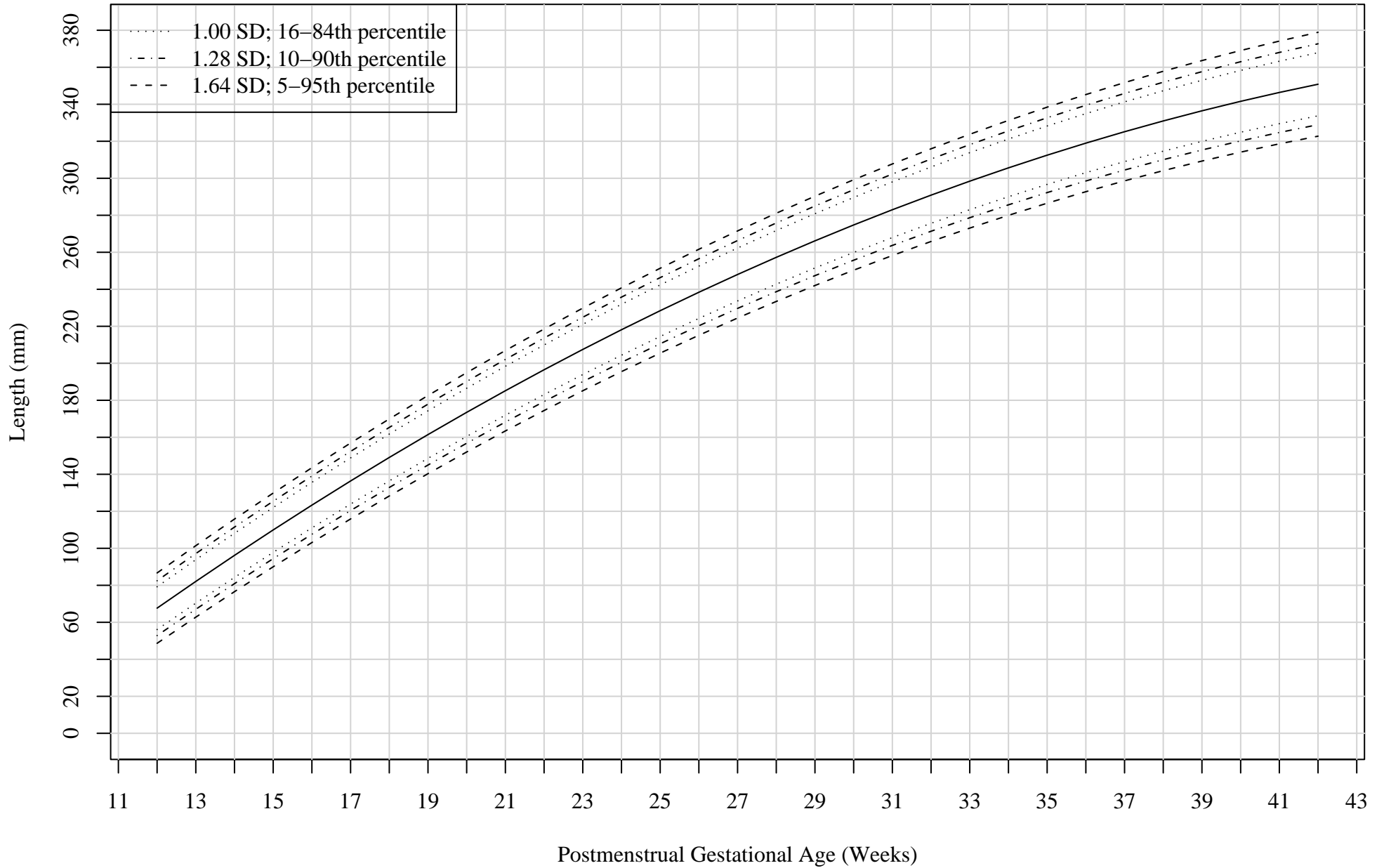


### Crown–Rump Length (12–24 Weeks)



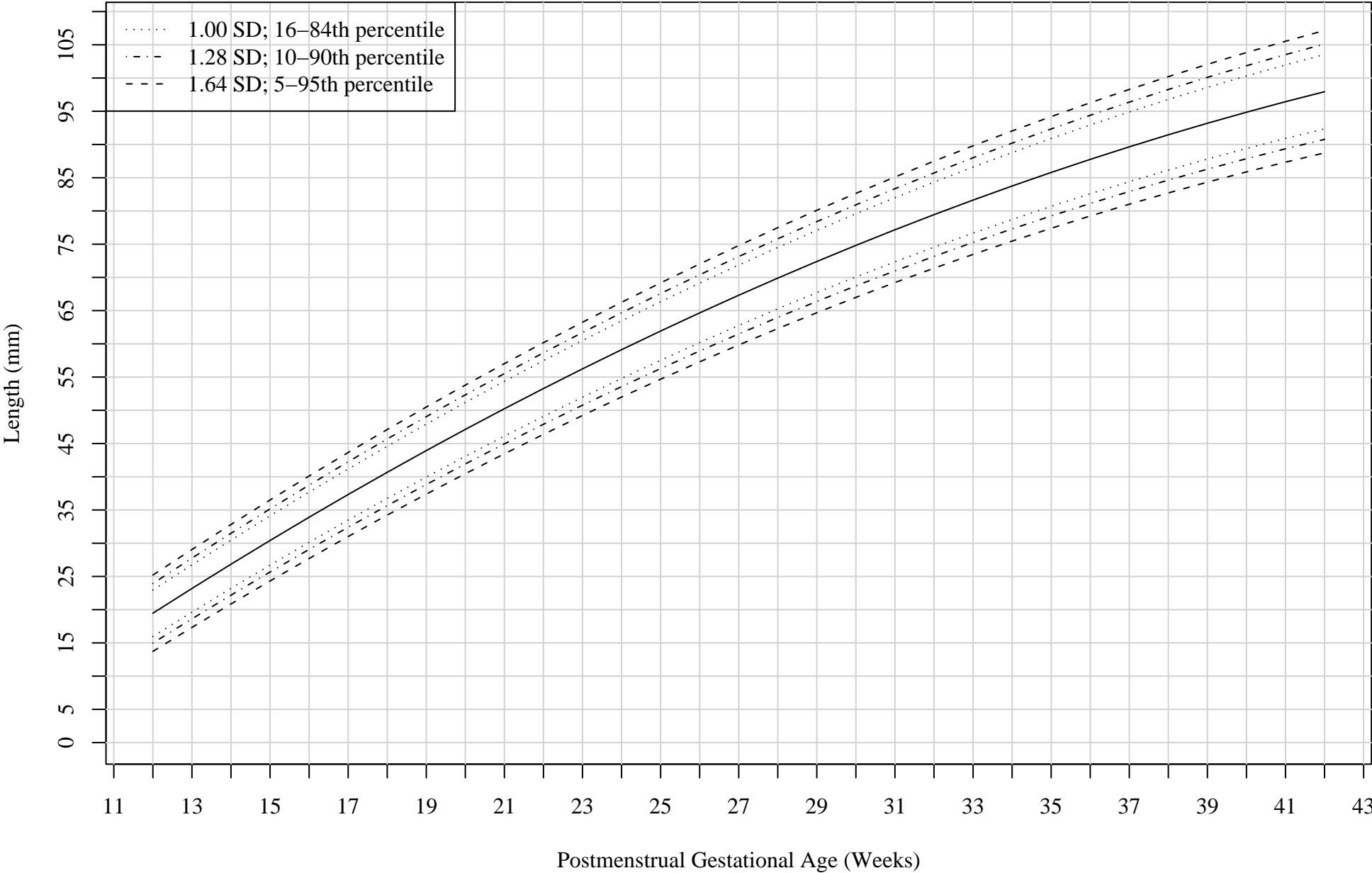
Sources: Cussen et al. (1990), Hansen et al. (2003), and Wigglesworth and Singer (1991)

## Head Circumference (12–42 Weeks)



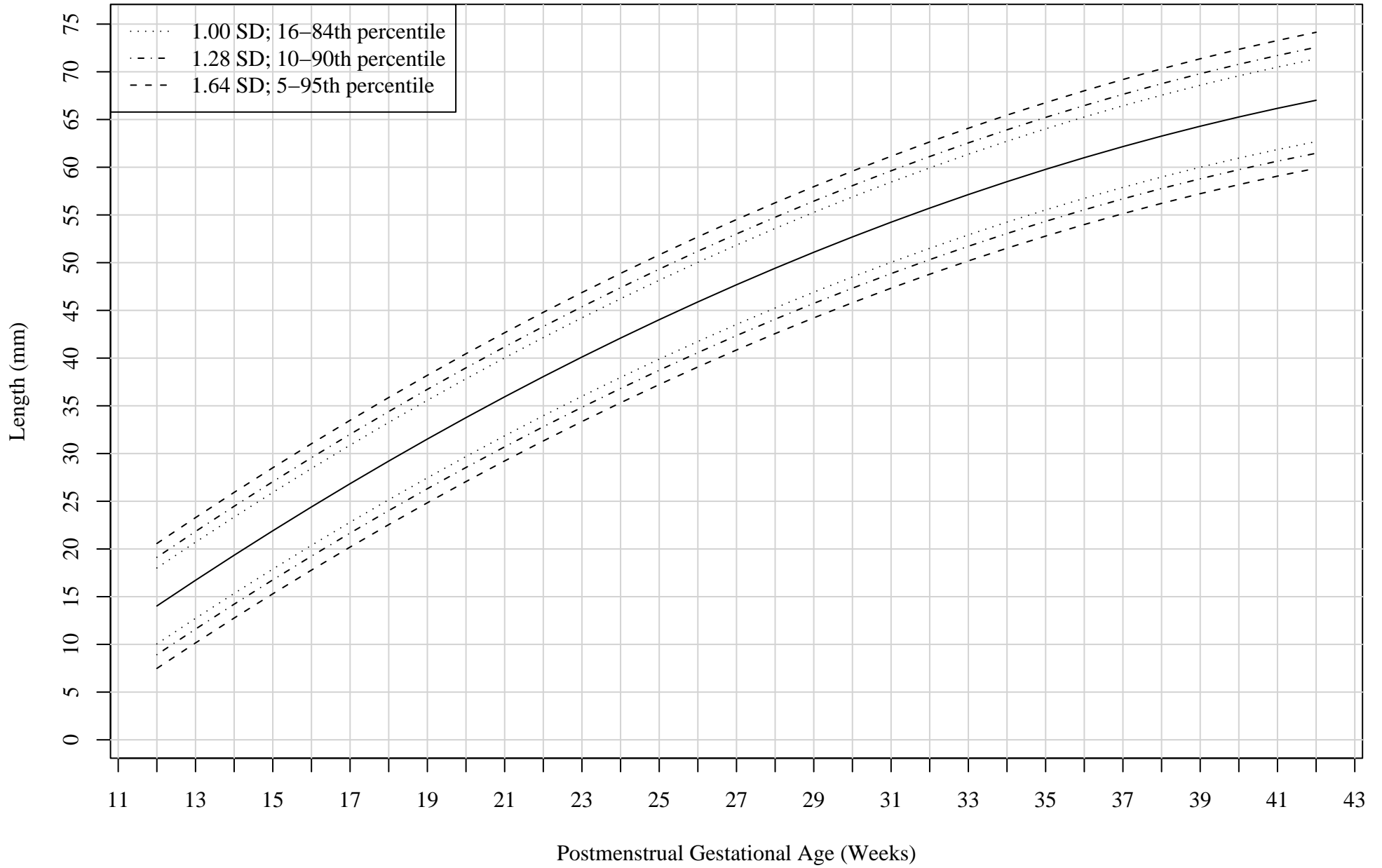
Source: Guihard-Costa et al. (2003)

### Biparietal Diameter (12–42 Weeks)



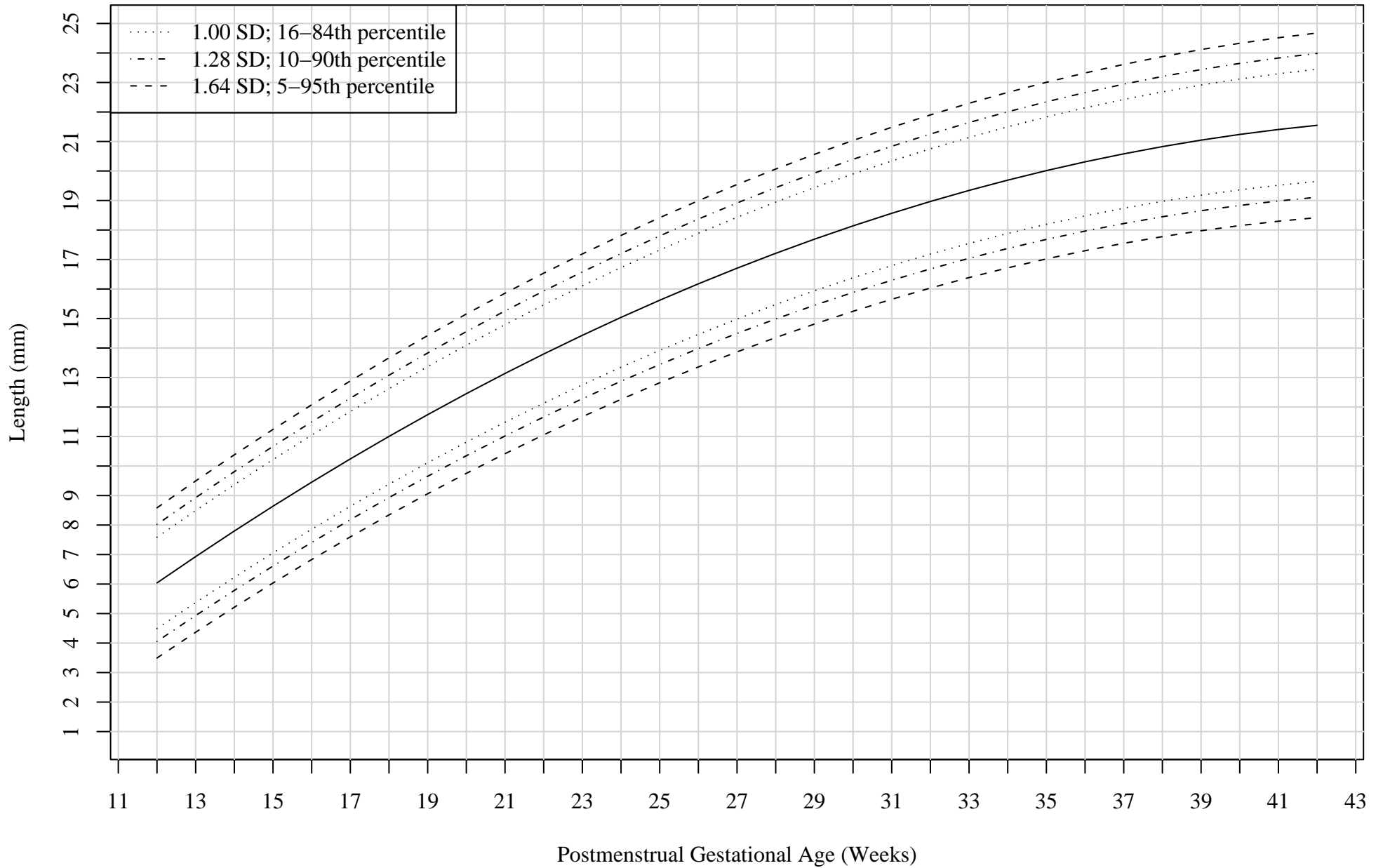
Source: Guihard-Costa et al. (2003)

### Outer Canthal Distance (12–42 Weeks)



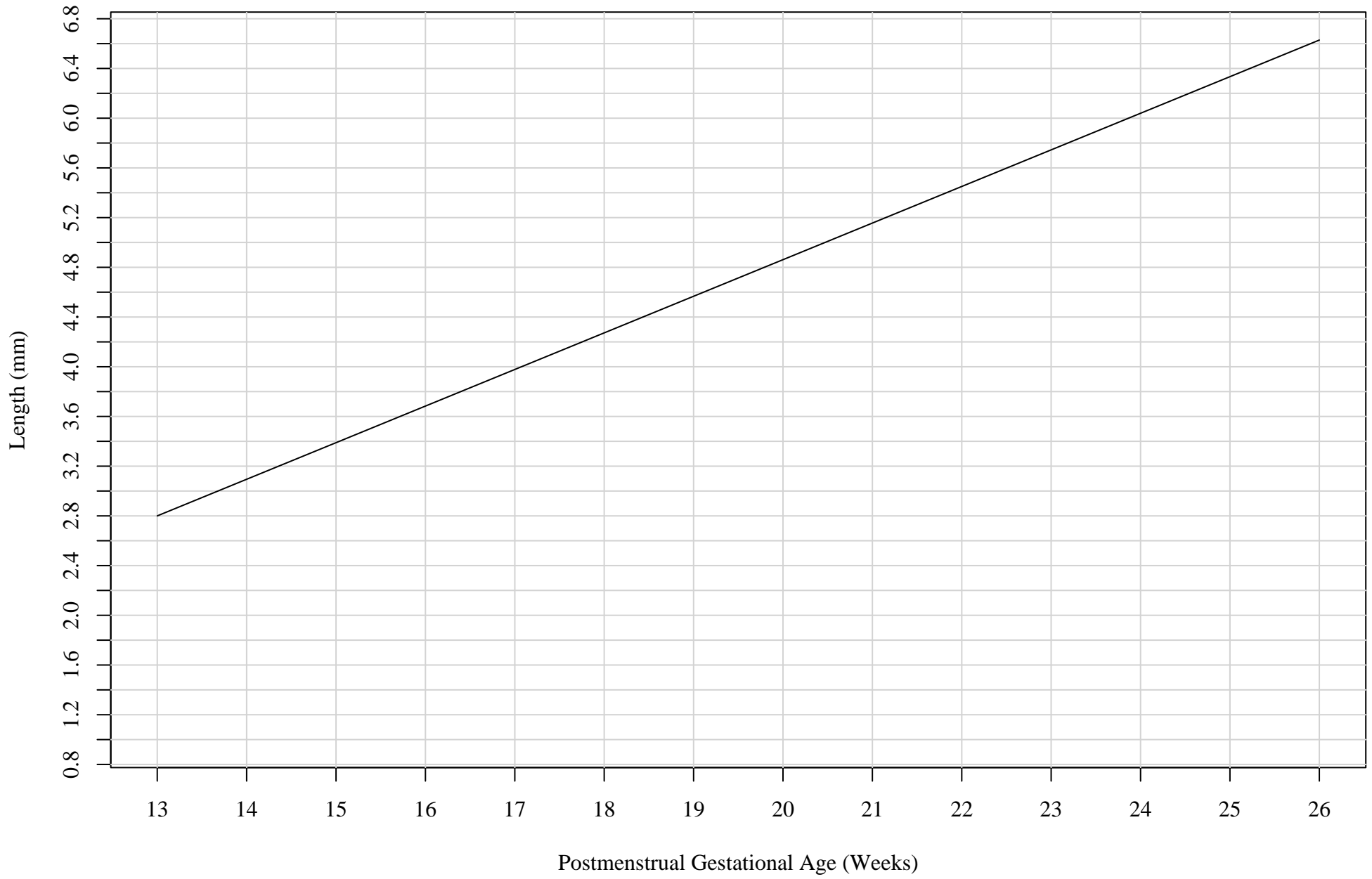
Source: Guihard-Costa et al. (2003)

### Inner Canthal Distance (12–42 Weeks)



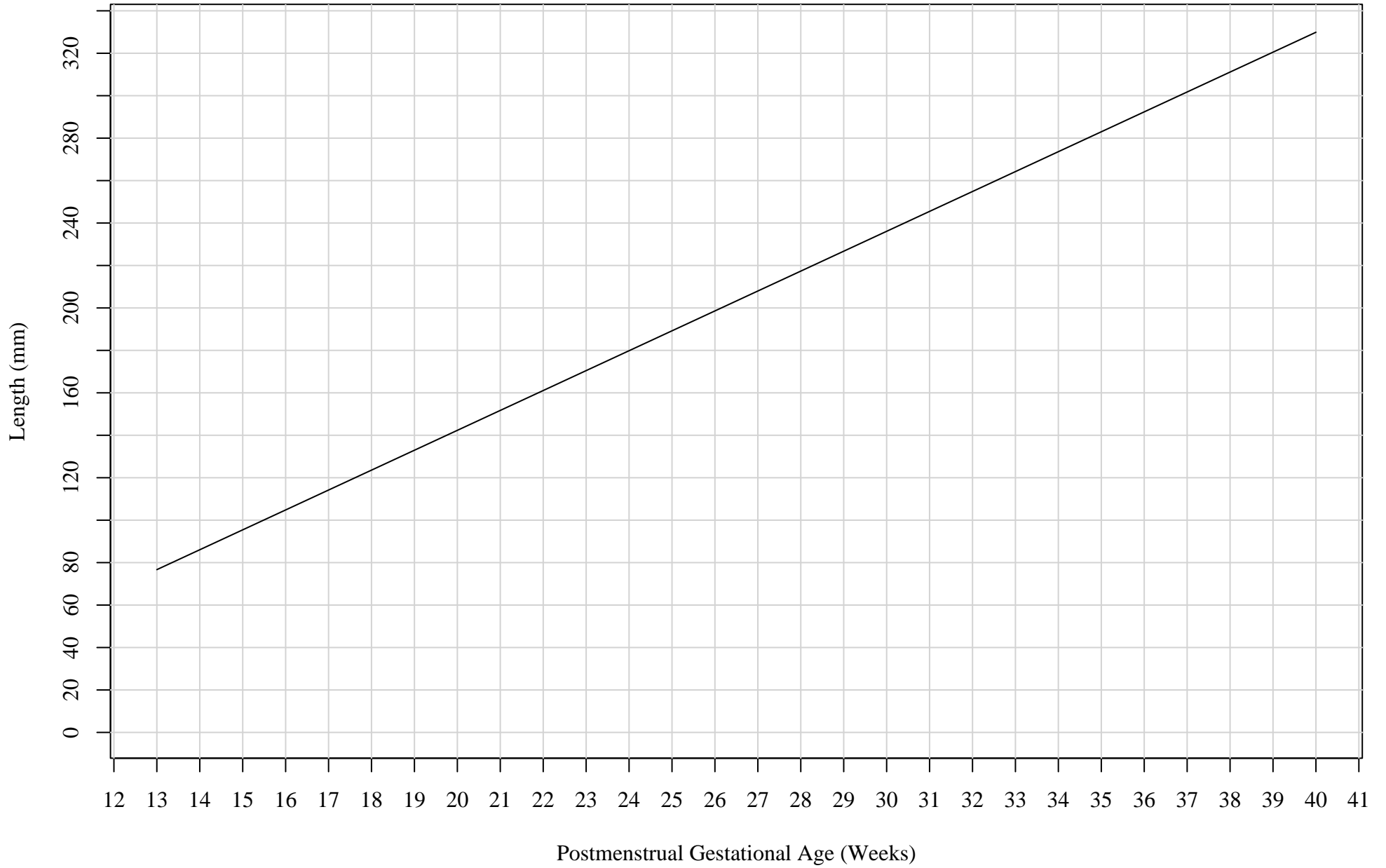
Source: Guihard-Costa et al. (2003)

### Philtrum Length (13–26 Weeks)



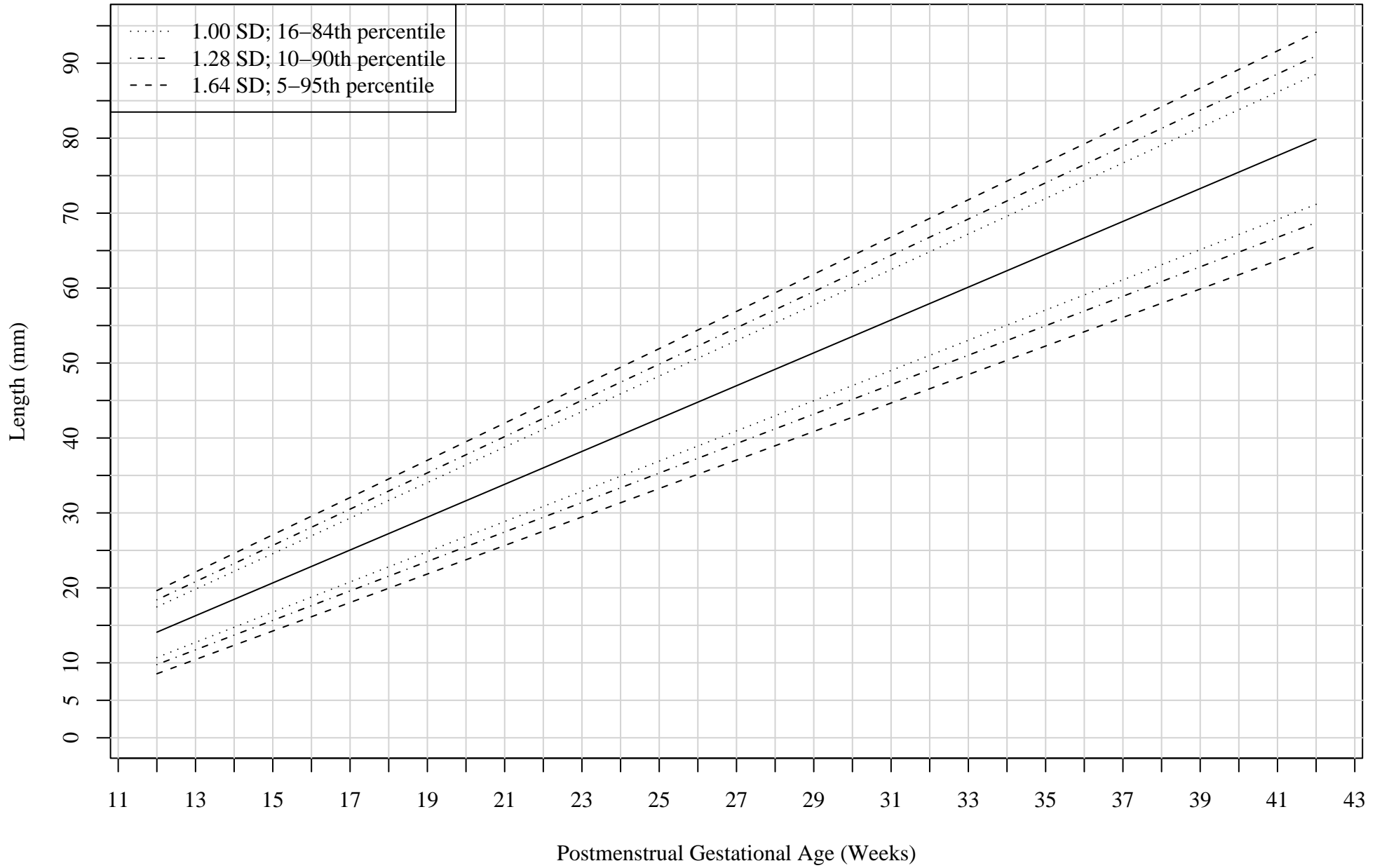
Source: Chambers et al. (1993)

### Chest Circumference (13–40 Weeks)



Sources: Bhat et al. (1989) and Chambers et al. (1993)

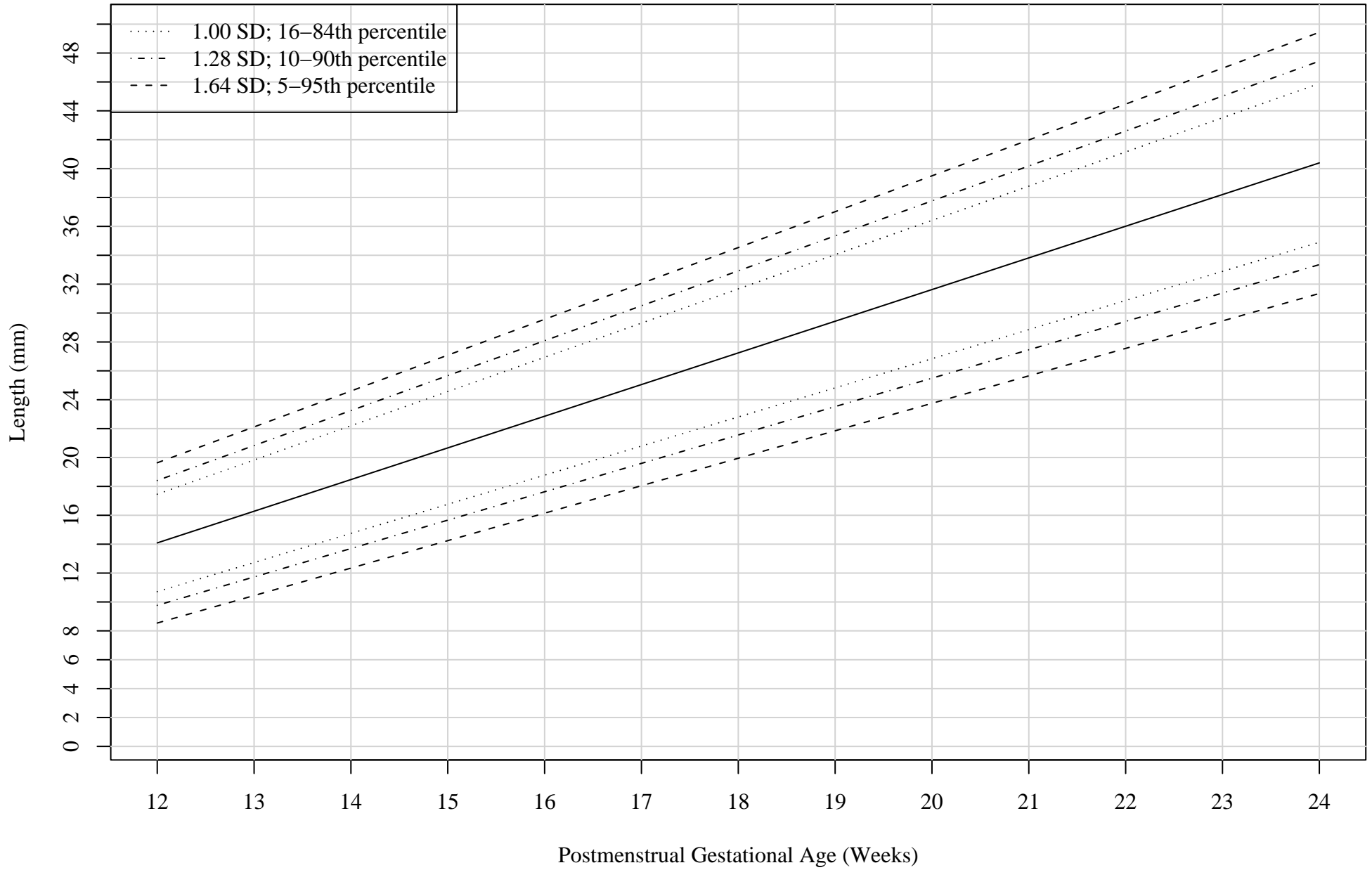
### Inter-Nipple Distance (12–42 Weeks)



Source: Guihard-Costa et al. (2003)

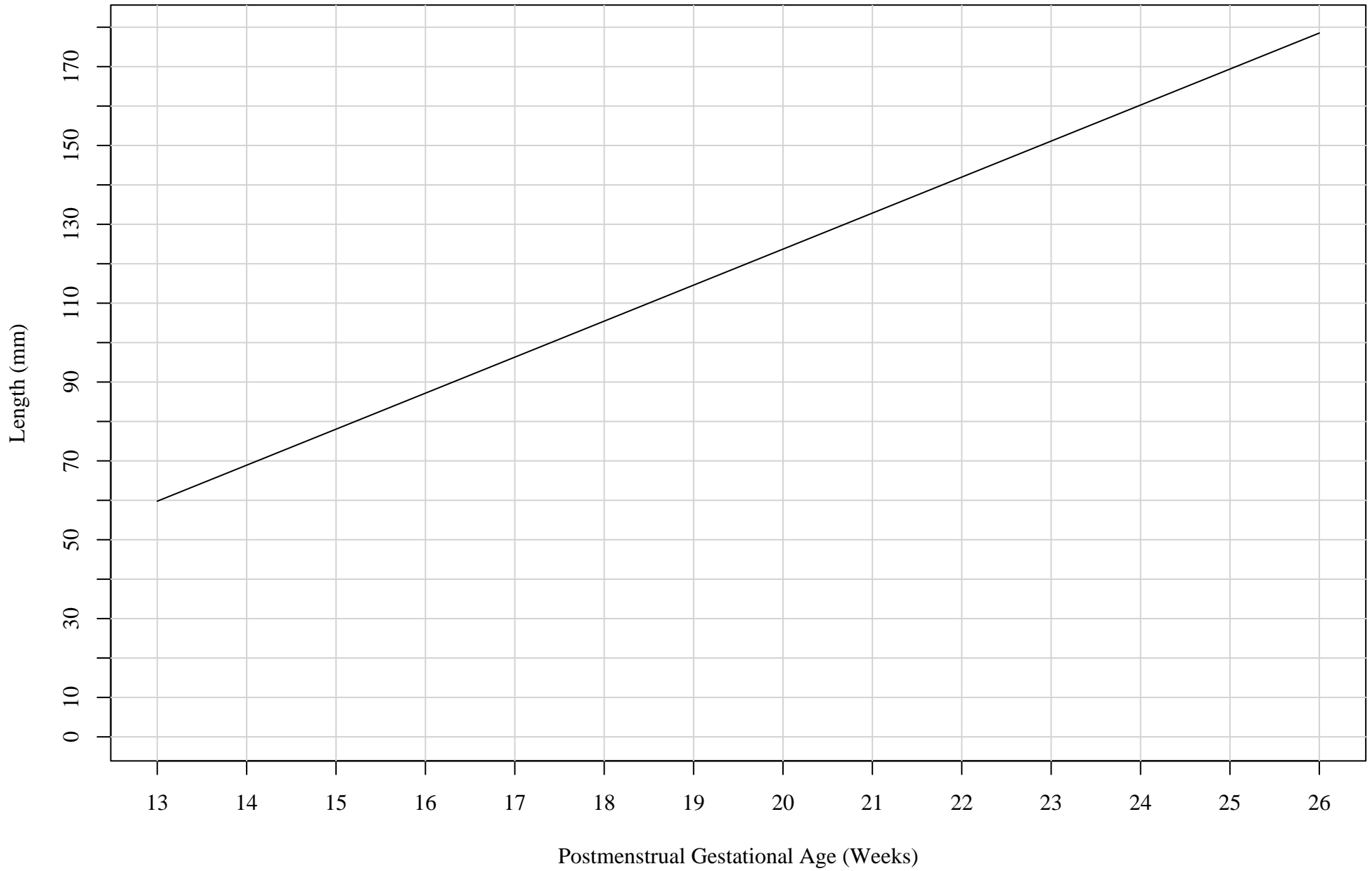


### Inter-Nipple Distance (12–24 Weeks)



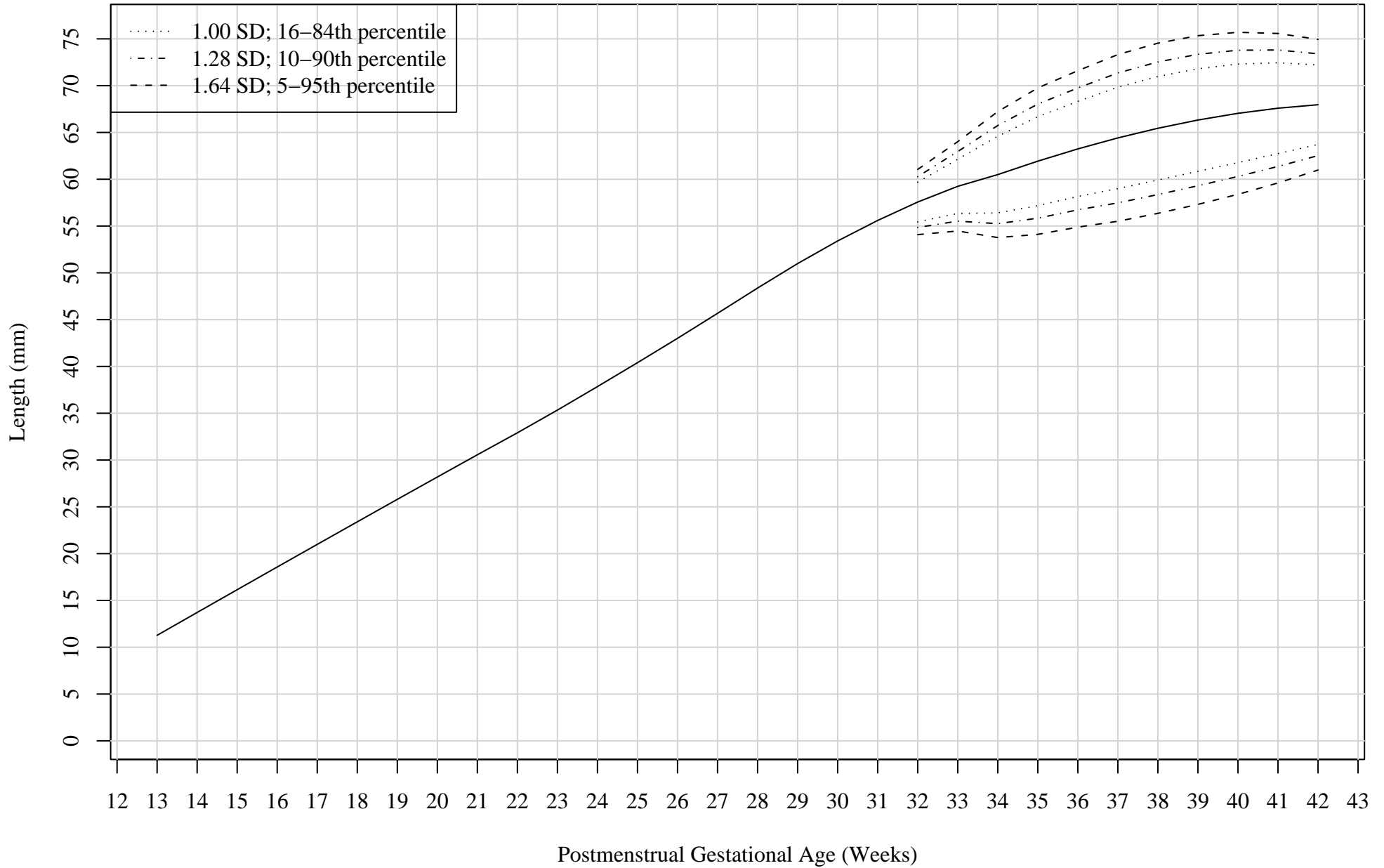
Source: Guihard-Costa et al. (2003)

### Abdominal Circumference (13–26 Weeks)



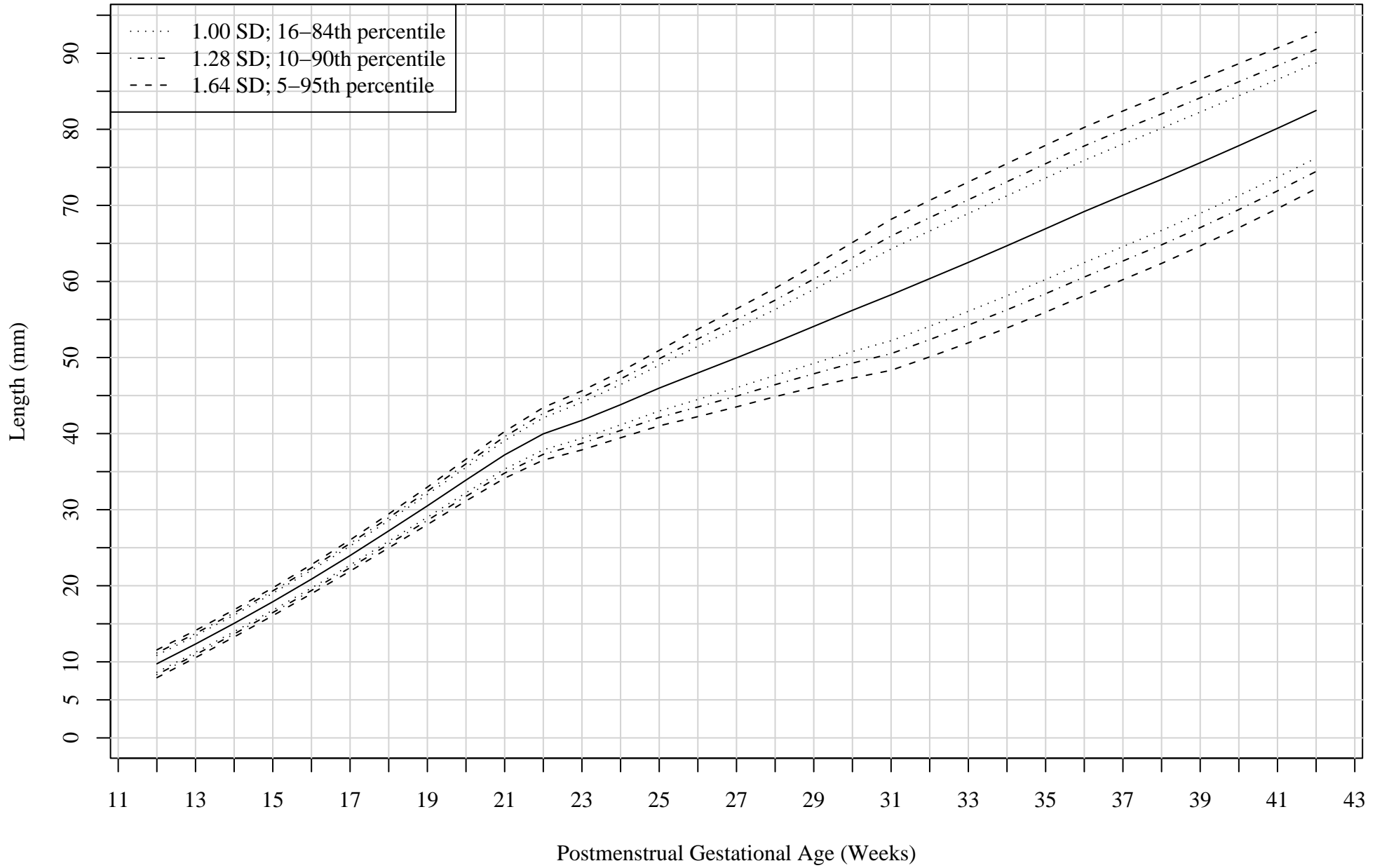
Source: Chambers et al. (1993)

## Hand Length (13–42 Weeks)



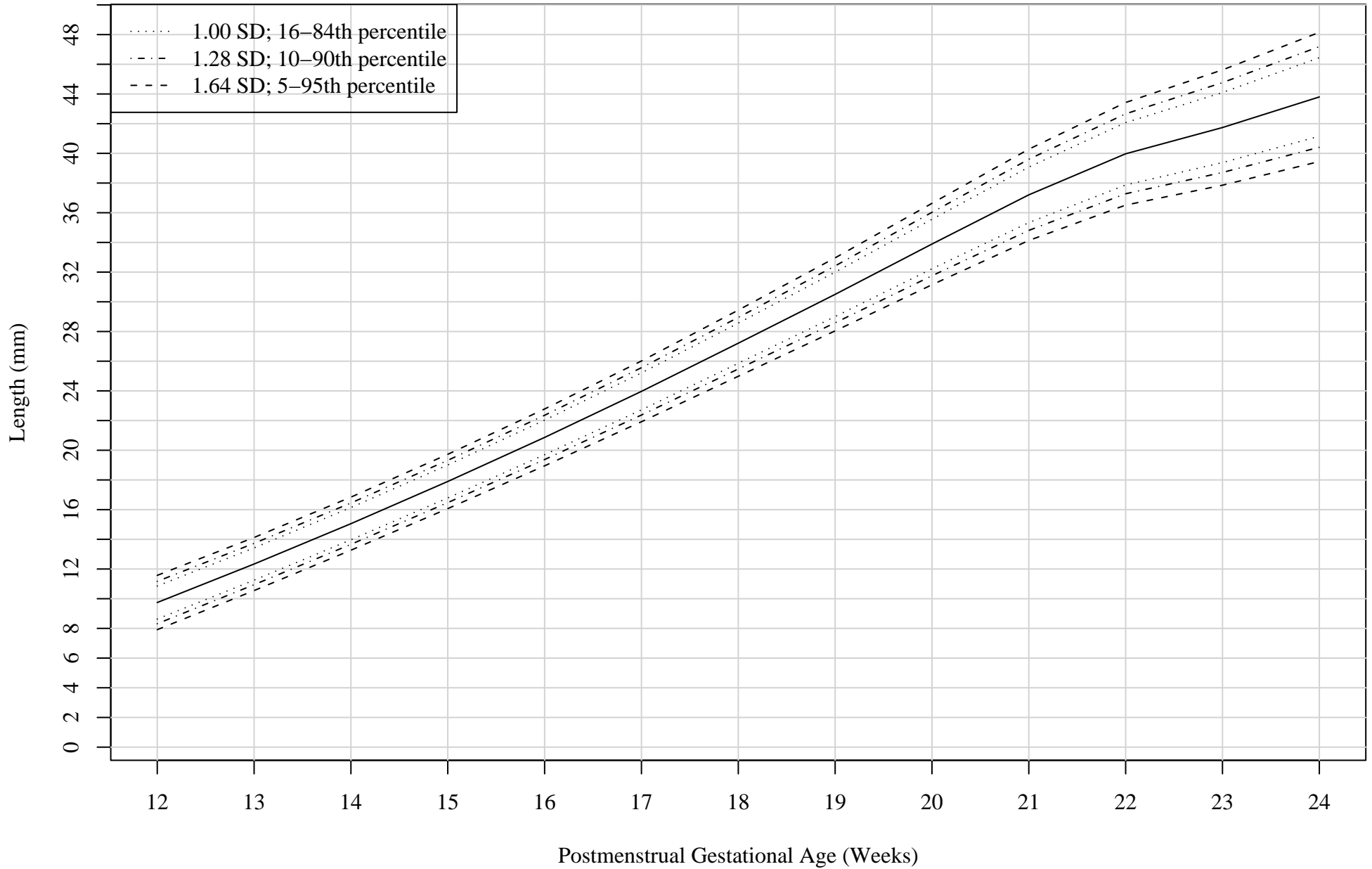
Sources: Chambers et al. (1993) and Madhulika et al. (1989)

### Foot Length (12–42 Weeks)



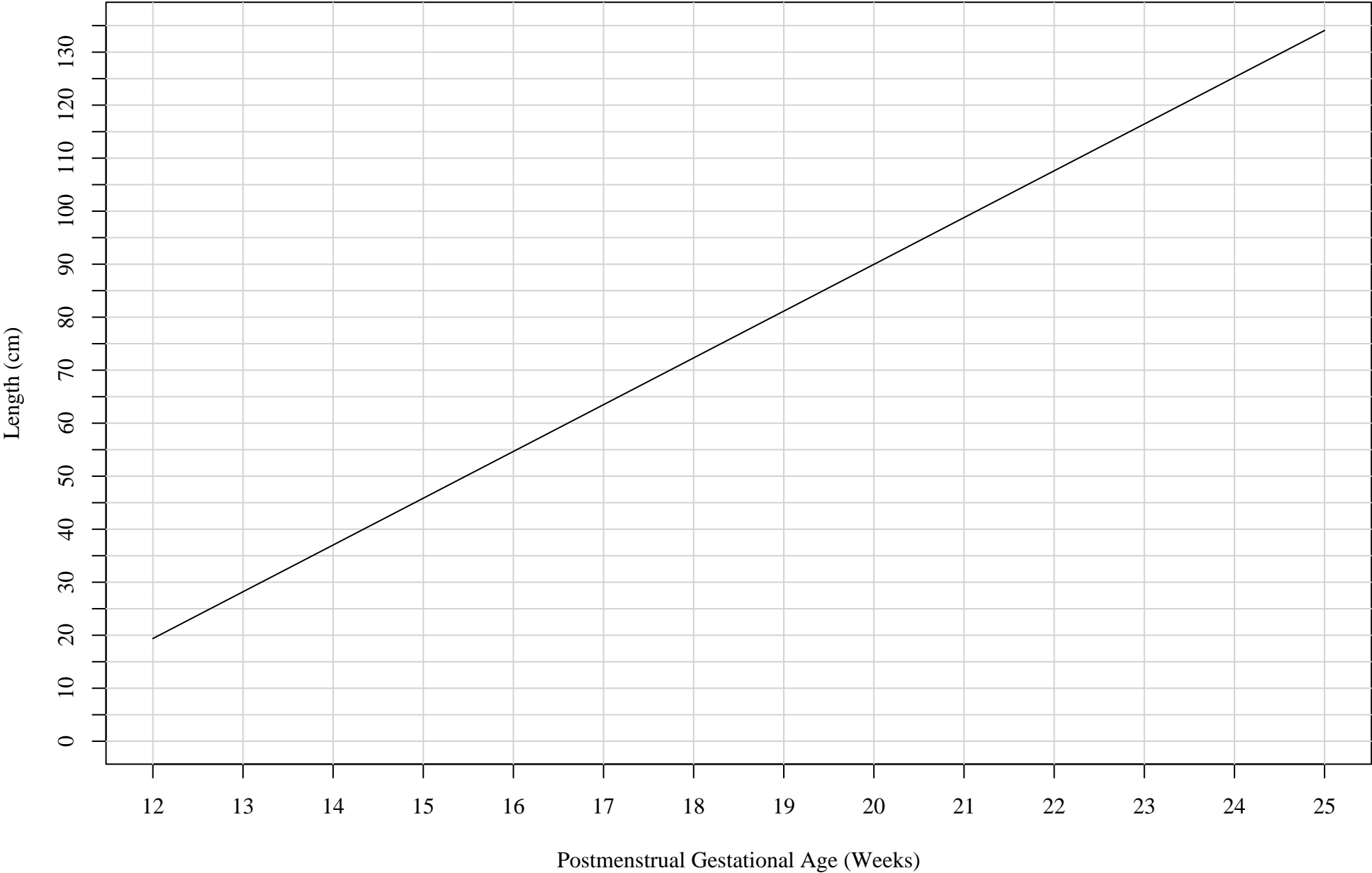
Sources: Hansen et al. (2003) and Wigglesworth and Singer (1991)

### Foot Length (12–24 Weeks)



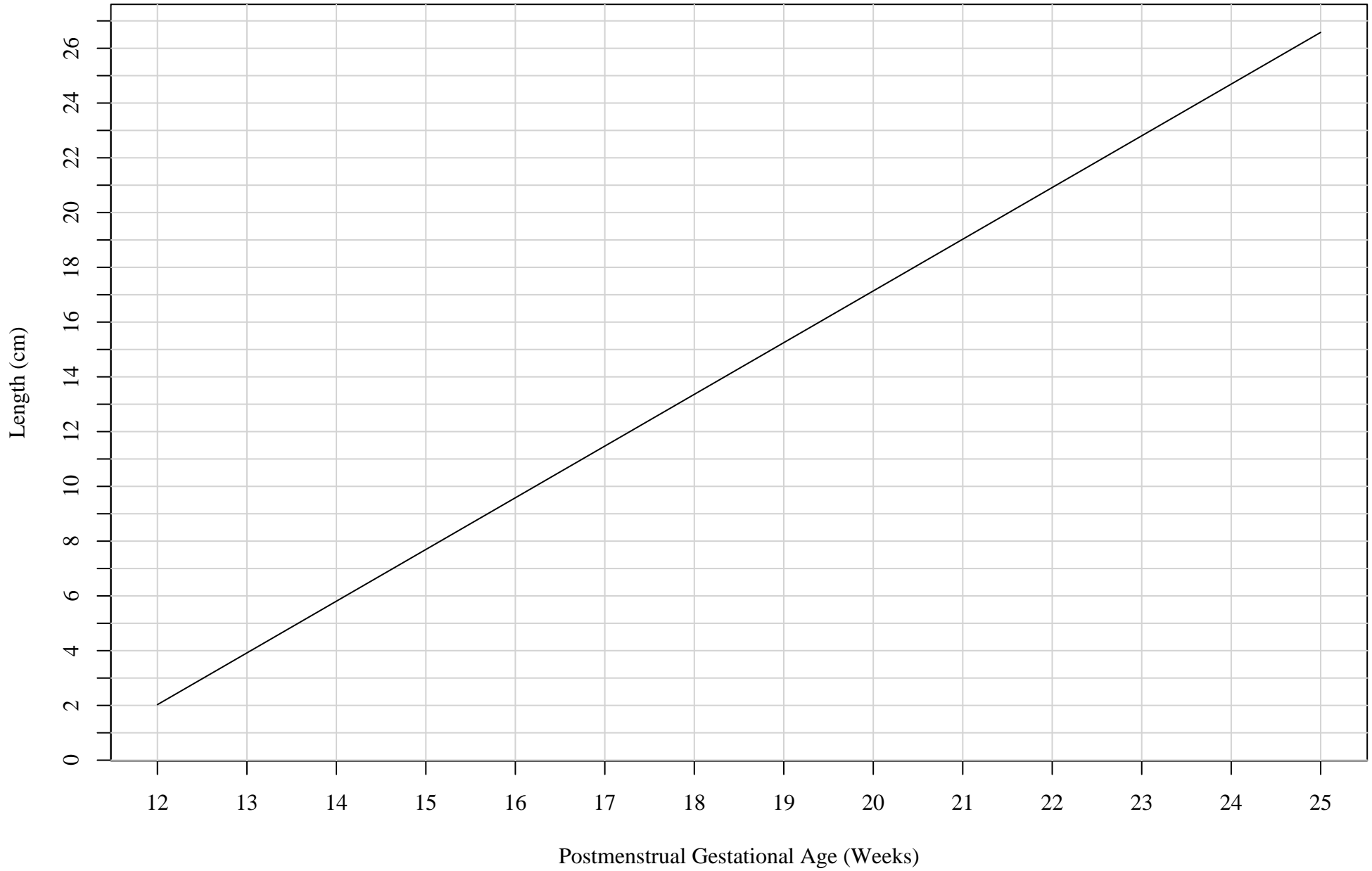
Sources: Hansen et al. (2003) and Wigglesworth and Singer (1991)

### Small Intestine Length (12–25 Weeks)



Source: FitzSimmons et al. (1988)

## Large Intestine Length (12–25 Weeks)



Source: FitzSimmons et al. (1988)

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