COVID-19 Modeling Update
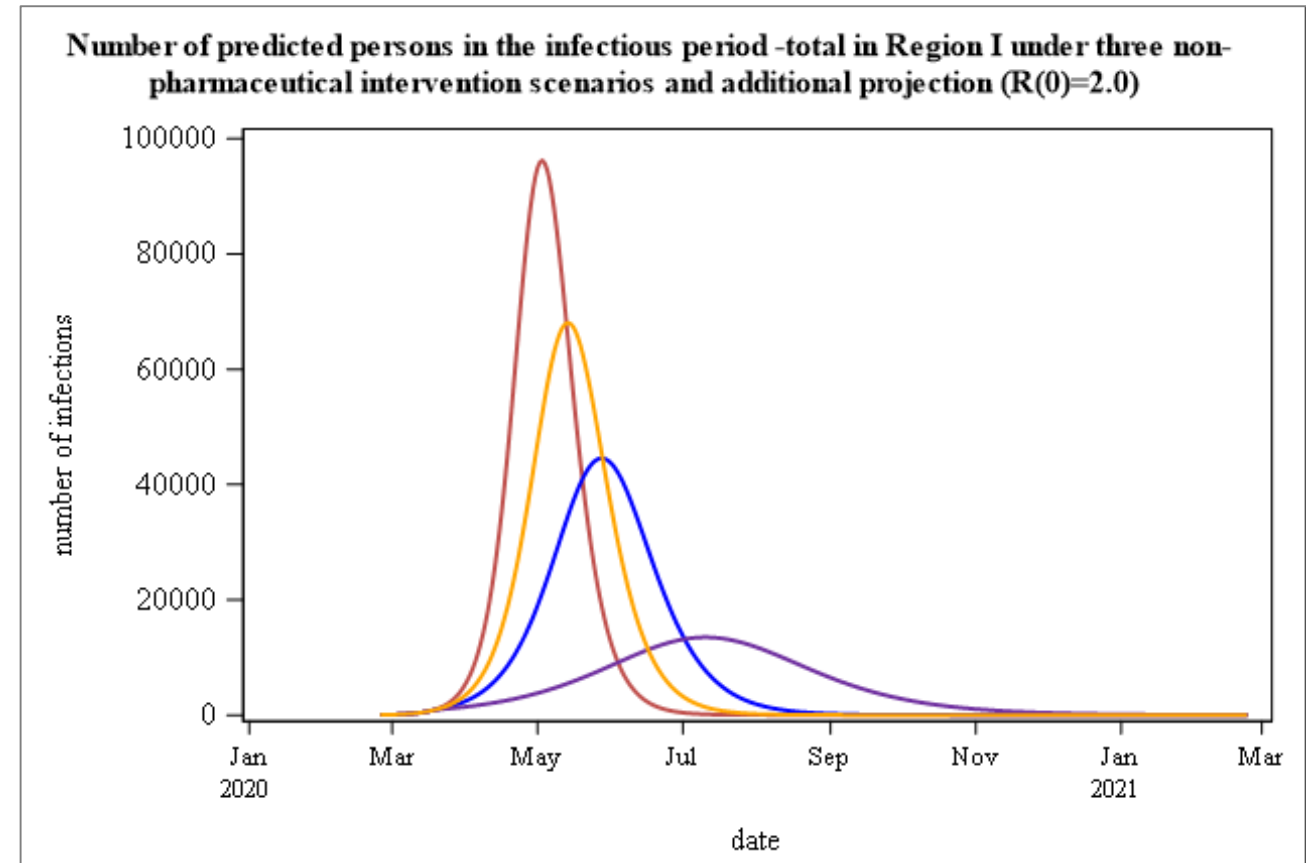
April 16, 2020

All Regions

LOUISIANA
DEPARTMENT OF HEALTH

Region 1:
Infectious persons per day under four scenarios

— R_0 = 2.4 (baseline)

— R_0 = 2.0

— R_0 = 1.7 (effective social distancing)

— R_0 = 1.3 (shelter in place)

Number of predicted persons in the infectious period -total in Region I under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
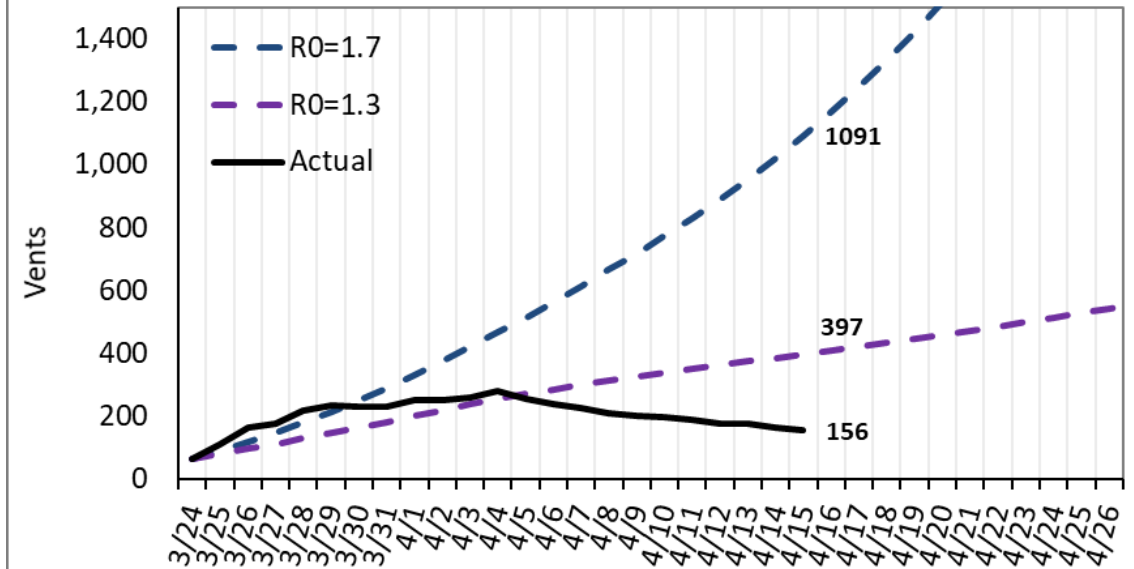
Hospitalization/Vent Projections – Region 1

R1: COVID+ in hospital — R0=1.7, R0=1.3, Actual; 2927, 1024, 790
*Models account for social distancing effects. Estimates may undercount or overcount depending on how citizens are adhering.
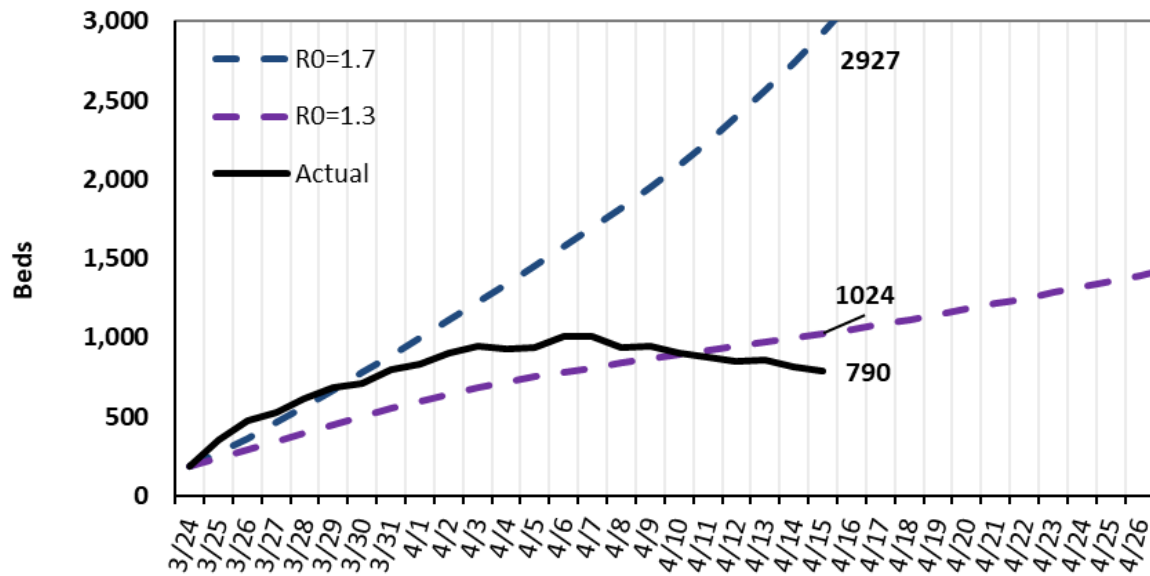
R1: COVID+ on vent — R0=1.7, R0=1.3, Actual; 1091, 397, 156
*Models account for social distancing effects. Estimates may undercount or overcount depending on how citizens are adhering.
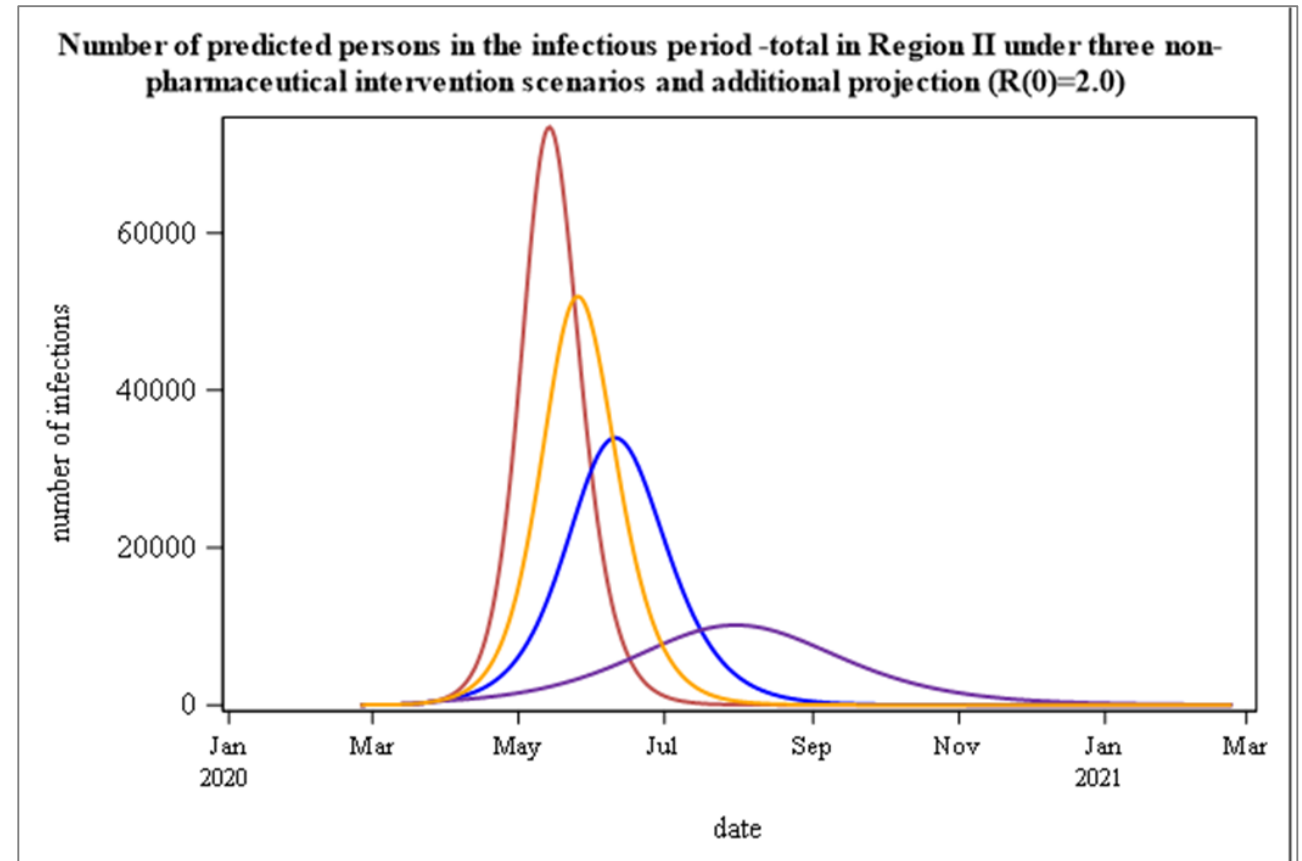
*Actual COVID+ hospitalization and COVID+ on vent lines may be an undercount because it does not include COVID PUIs (persons under investigation).
For example, on 4/15 there were an additional **305 COVID PUIs** in the hospital and **30 COVID PUIs** on vents in Region 1.

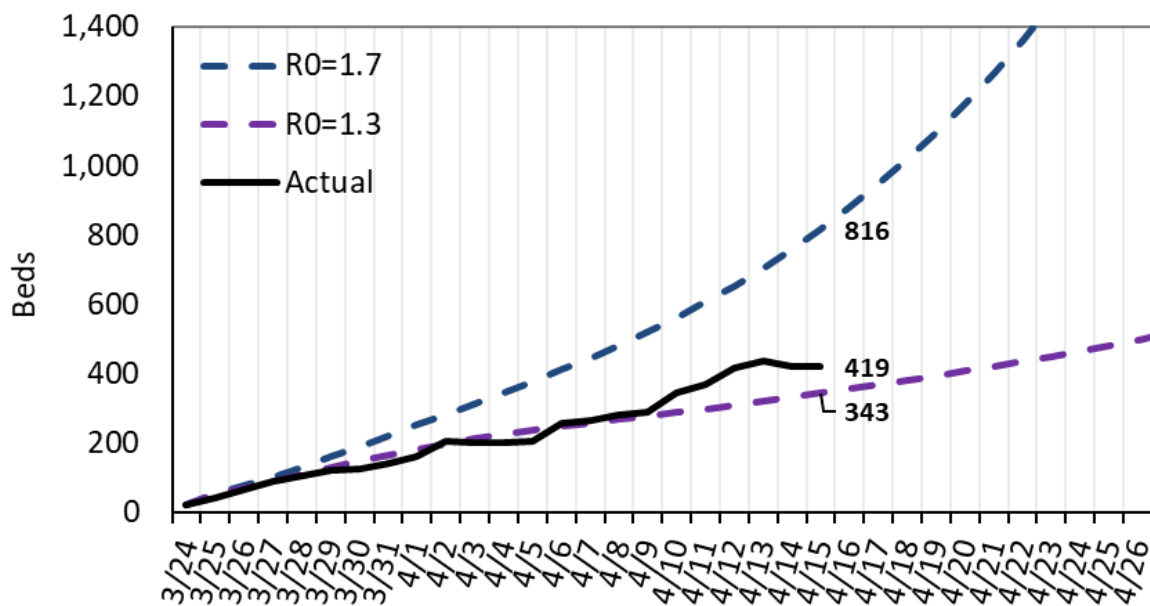# Region 2:
Infectious persons per day under four scenarios

R_0 = 2.4 (baseline)

R_0 = 2.0

R_0 = 1.7 (effective social distancing)

R_0 = 1.3 (shelter in place)

Number of predicted persons in the infectious period -total in Region II under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
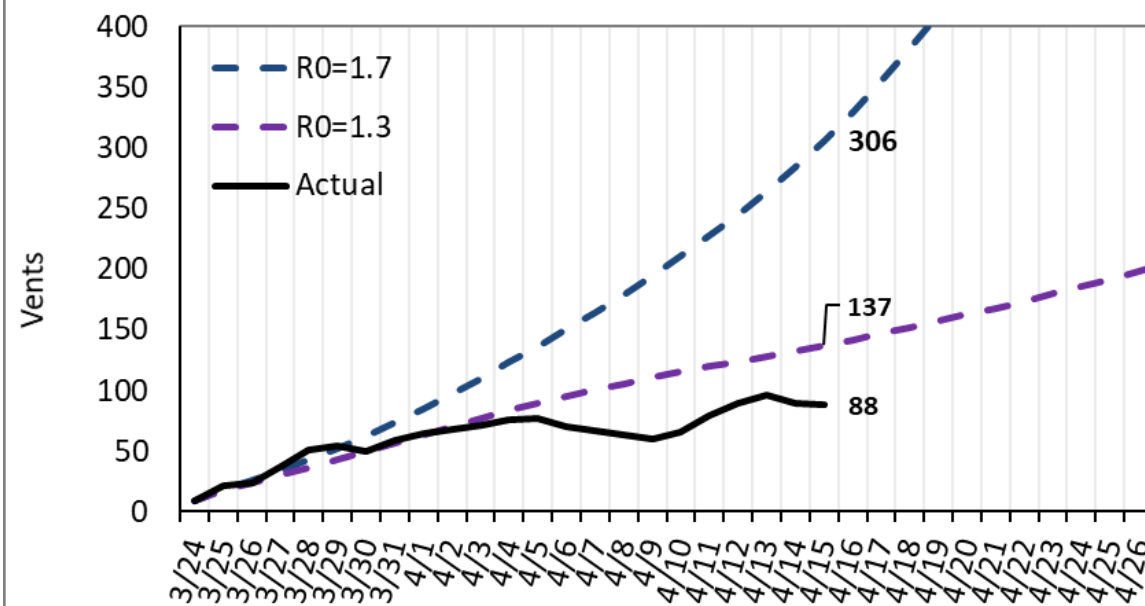
Hospitalization/Vent Projections – Region 2
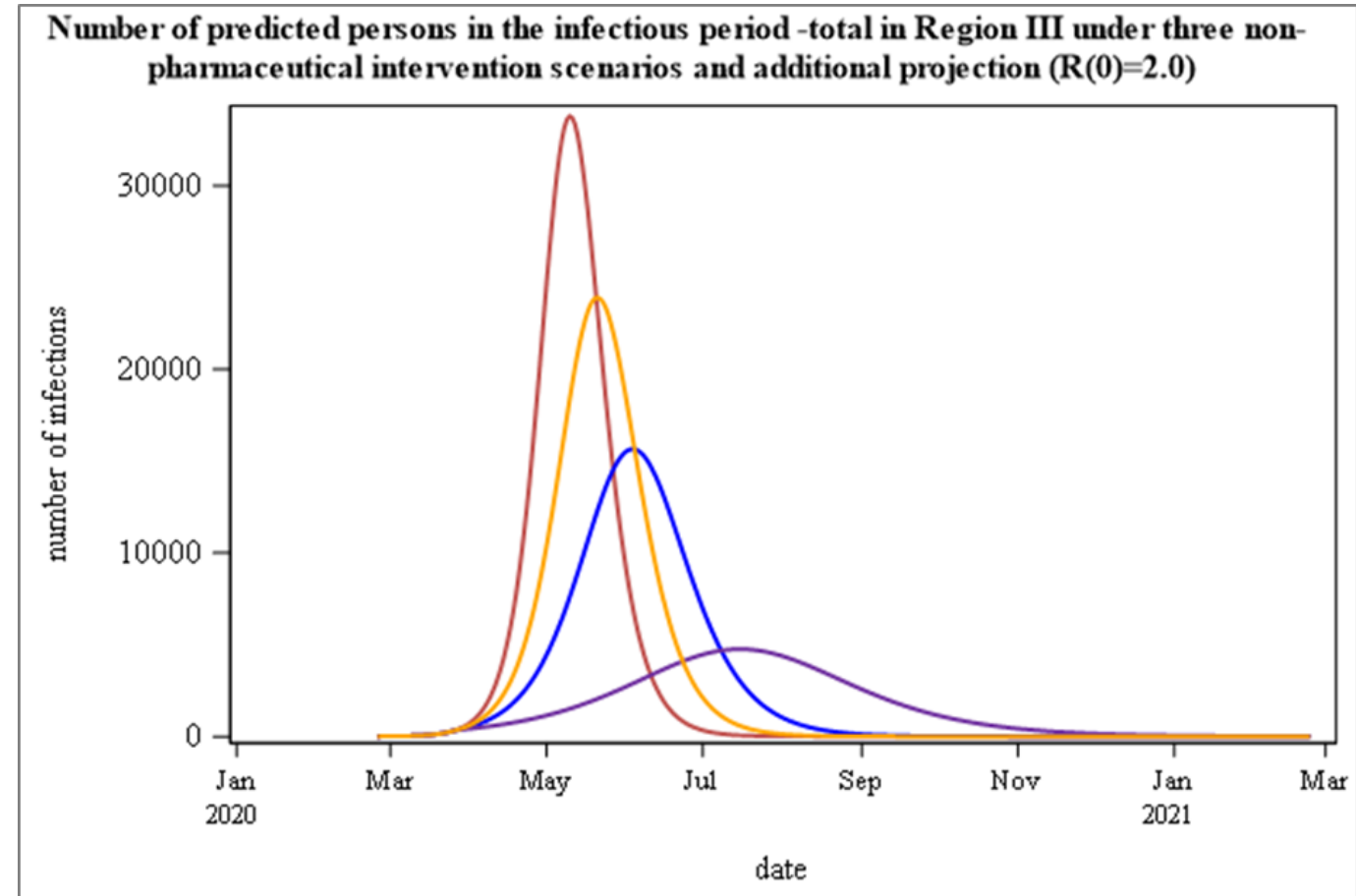

R2: COVID+ in hospital

R2: COVID+ on vent

*Models account for social distancing effects. Estimates may undercount or overcount depending on how citizens are adhering.

*Actual COVID+ hospitalization and COVID+ on vent lines may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **128 COVID PUIs** in the hospital and **8 COVID PUIs** on vents in Region 2.

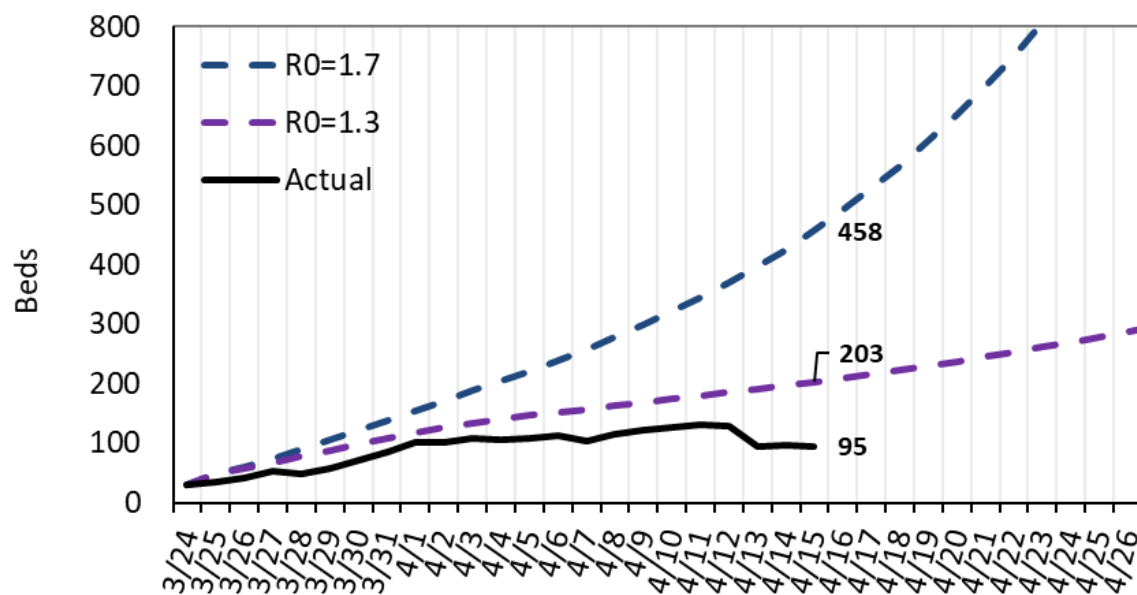# Region 3: Infectious persons per day under four scenarios

— R_0 = 2.4 (baseline)

— R_0 = 2.0

— R_0 = 1.7 (effective social distancing)

— R_0 = 1.3 (shelter in place)

Number of predicted persons in the infectious period -total in Region III under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
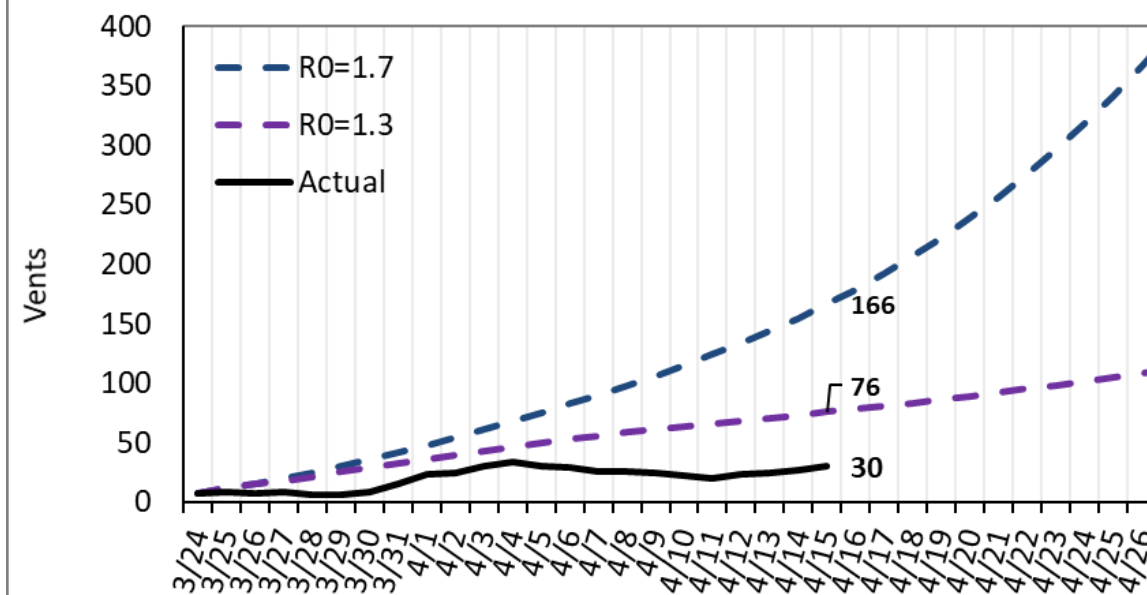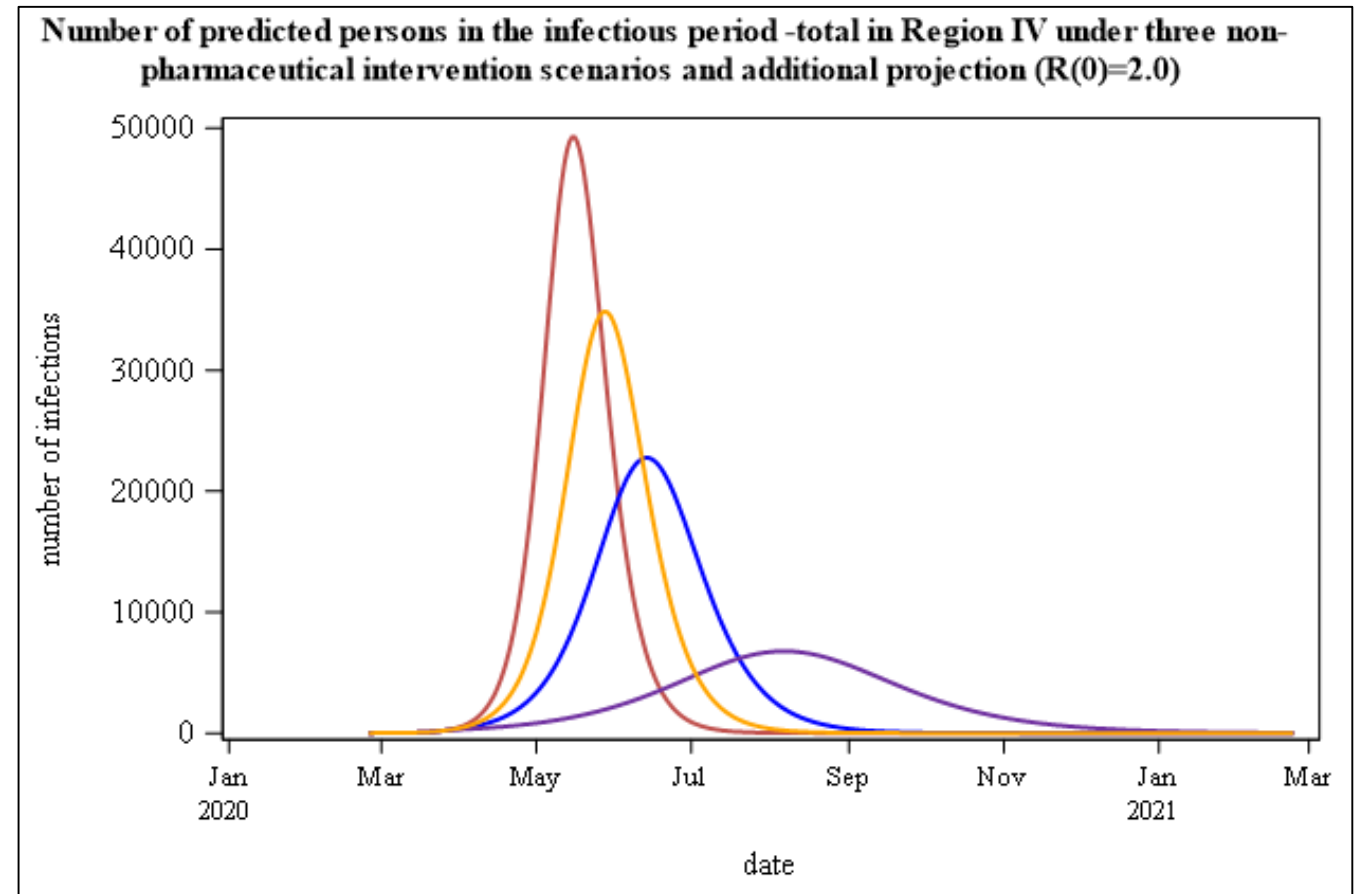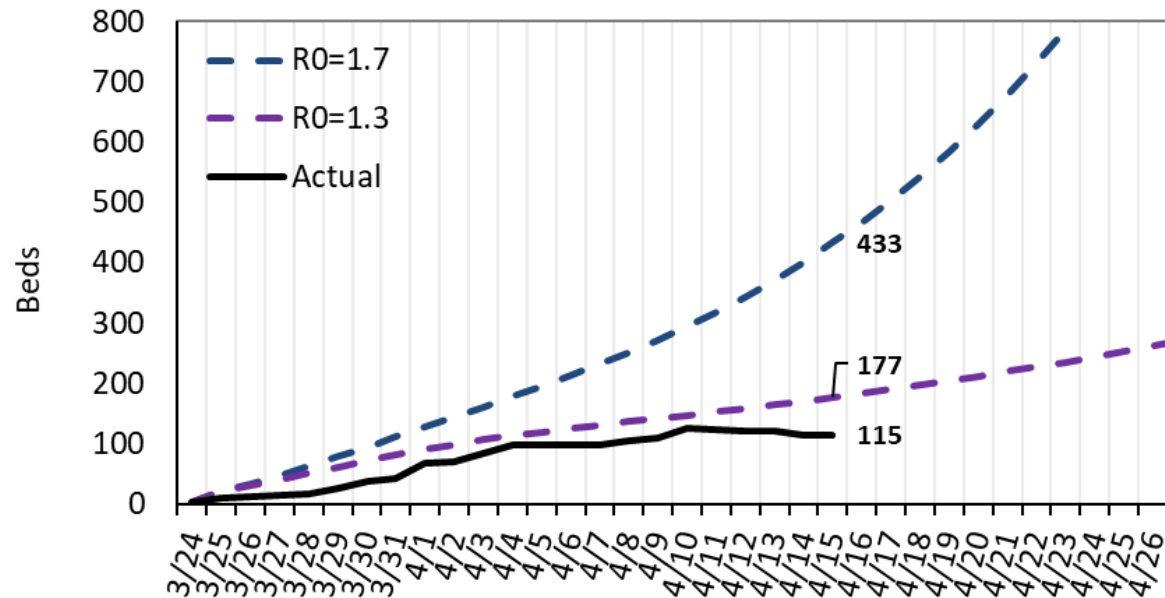
Hospitalization/Vent Projections – Region 3

*Actual COVID+ hospitalization and COVID+ on vent lines may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **73 COVID PUIs** in the hospital and **2 COVID PUIs** on vents in Region 3.

Region 4:
Infectious persons per day under four scenarios

—— R_0 = 2.4 (baseline)

—— R_0 = 2.0

—— R_0 = 1.7 (effective social distancing)

—— R_0 = 1.3 (shelter in place)

Number of predicted persons in the infectious period -total in Region IV under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
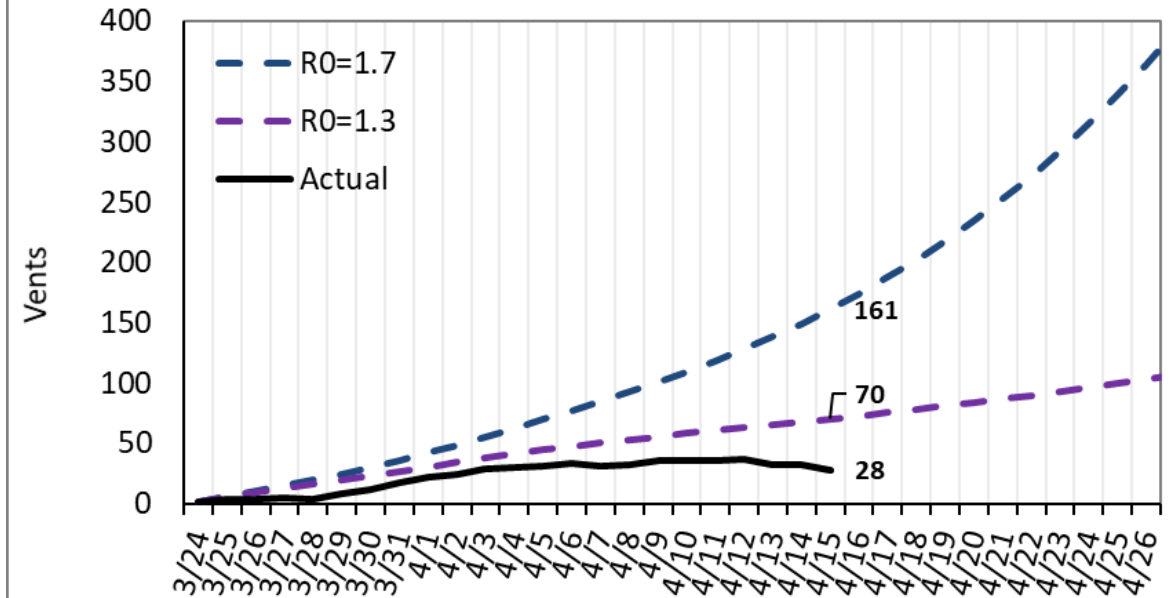
Hospitalization/Vent Projections – Region 4

*Actual COVID+ hospitalization and COVID+ on vent lines may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **50 COVID PUIs** in the hospital and **3 COVID PUIs** on vents in Region 4.

Region 5:
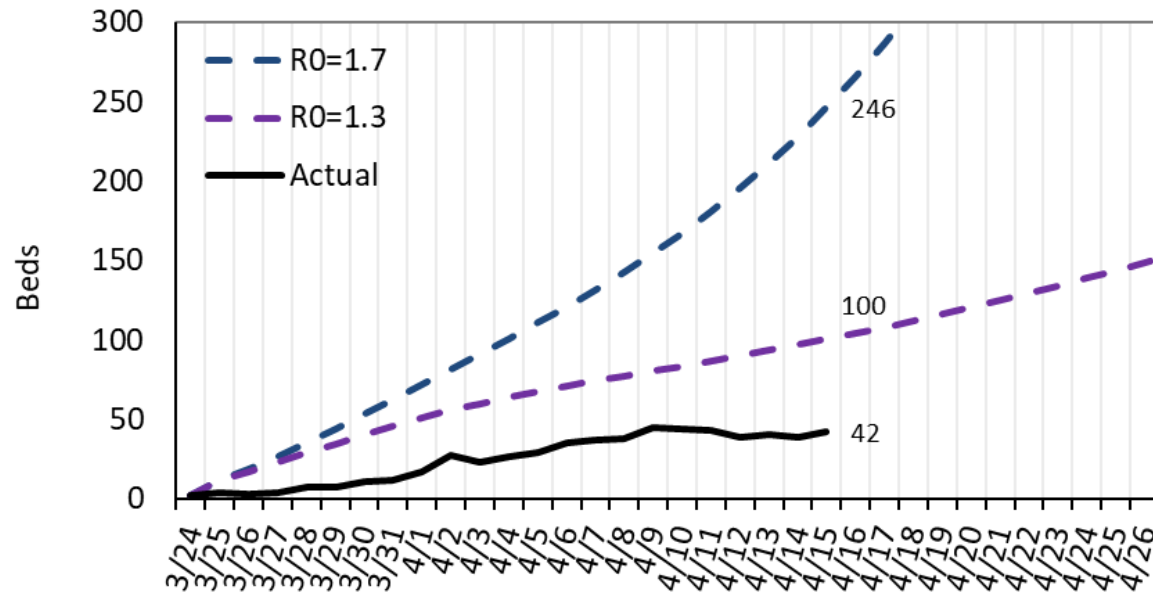# Infectious persons per day under four scenarios

— $R_0 = 2.4$ (baseline)

— $R_0 = 2.0$

— $R_0 = 1.7$ (effective social distancing)

— $R_0 = 1.3$ (shelter in place)

Number of predicted persons in the infectious period -total in Region V under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
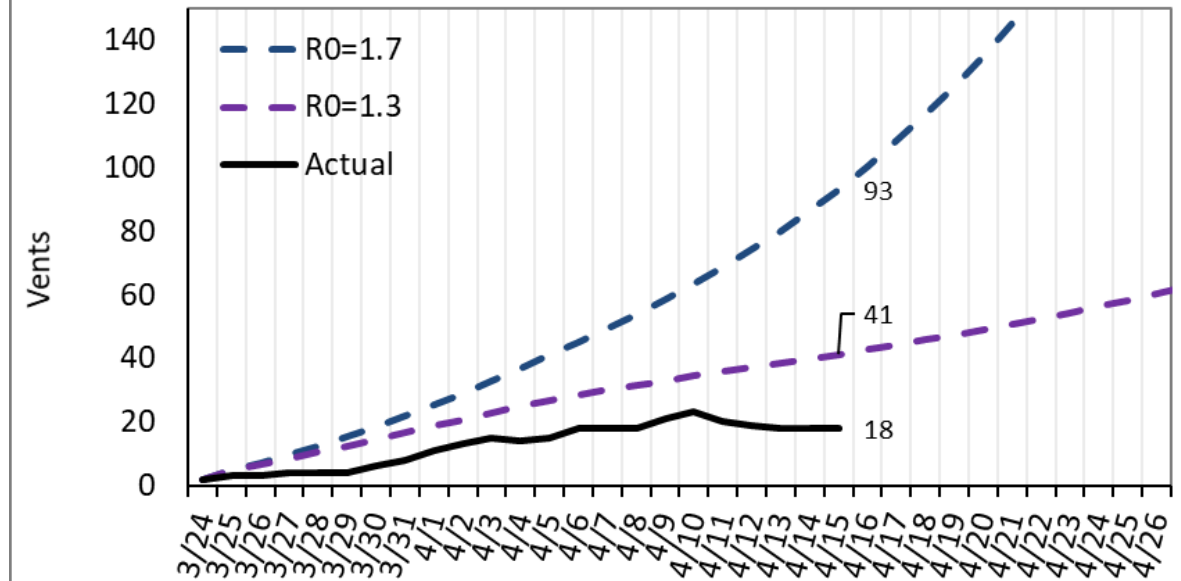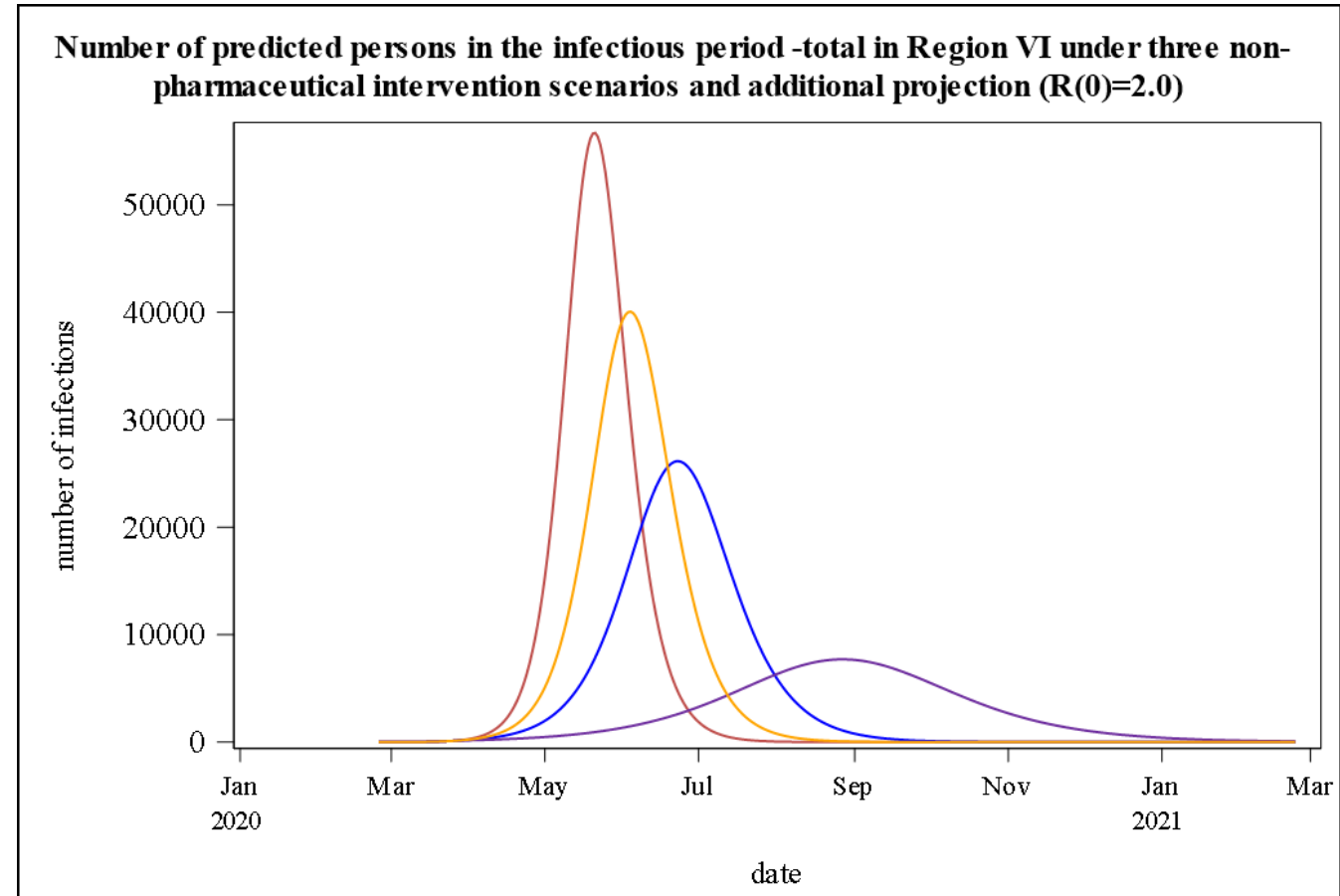
Hospitalization/Vent Projections – Region 5

*Actual COVID+ hospitalization line may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **20 COVID PUIs** in the hospital and **1 COVID PUI** on a vent in Region 5.
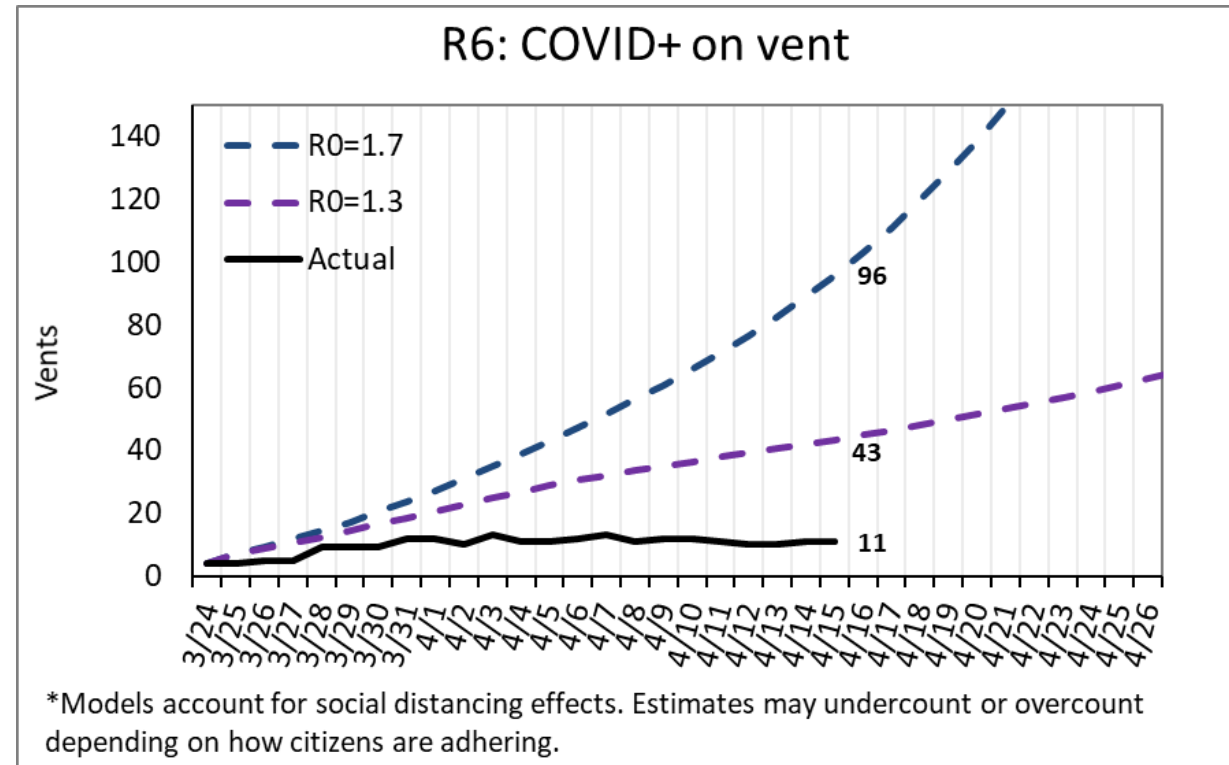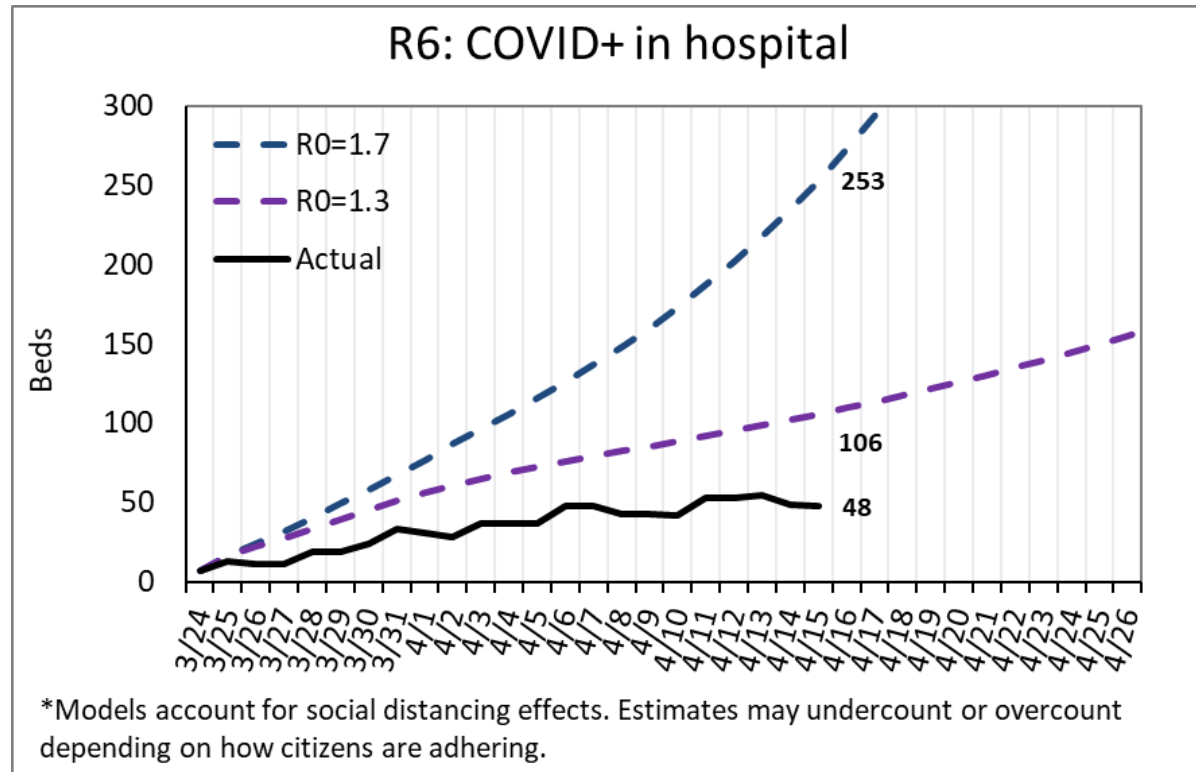
Region 6:
Infectious persons per day under four scenarios

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— R_0 = 2.4 (baseline)

— R_0 = 2.0

— R_0 = 1.7 (effective social distancing)

— R_0 = 1.3 (shelter in place)

Number of predicted persons in the infectious period -total in Region VI under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
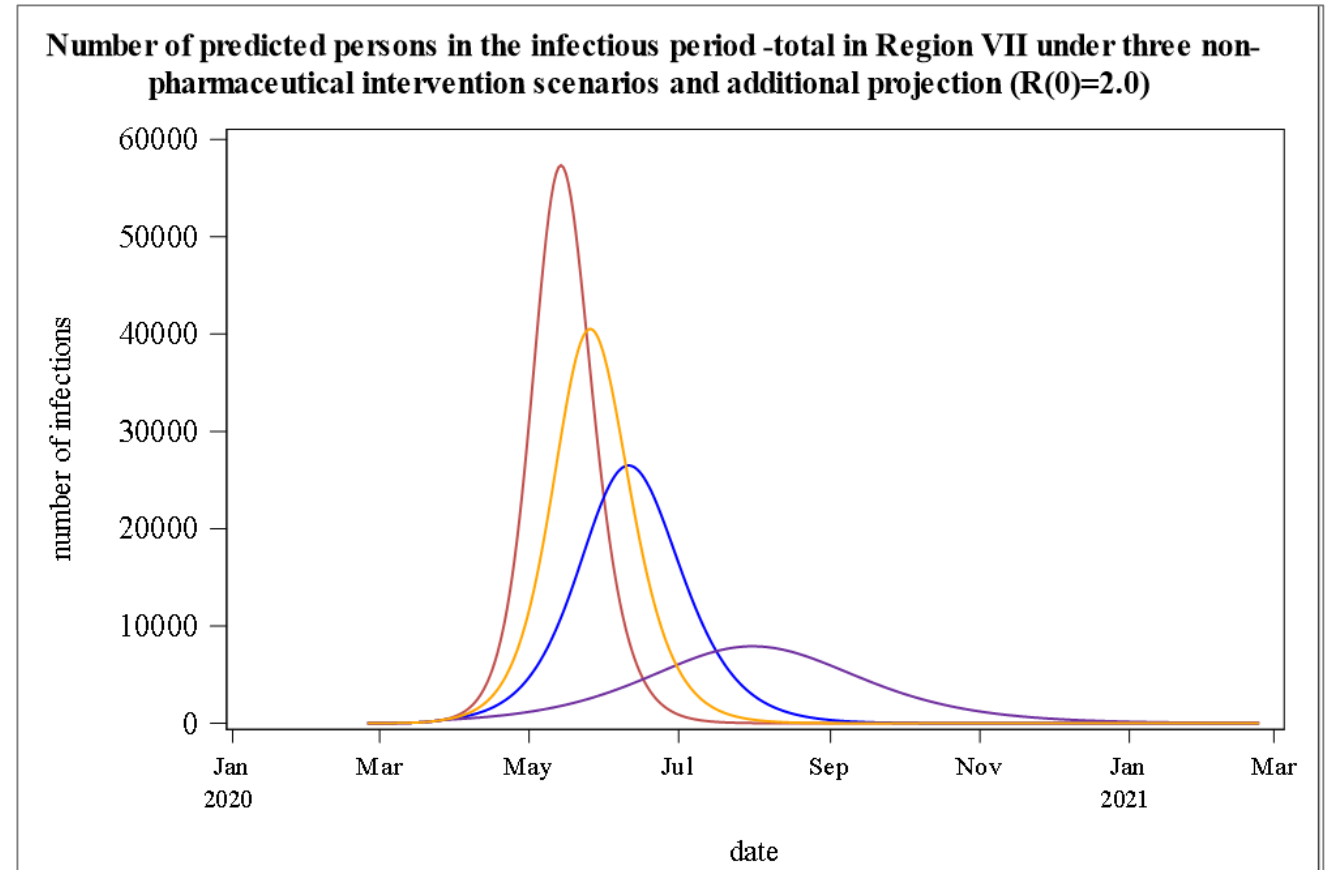
Hospitalization/Vent Projections – Region 6

*Actual COVID+ hospitalization line may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **44 COVID PUIs** in the hospital and **4 COVID PUIs** on vents in Region 6.

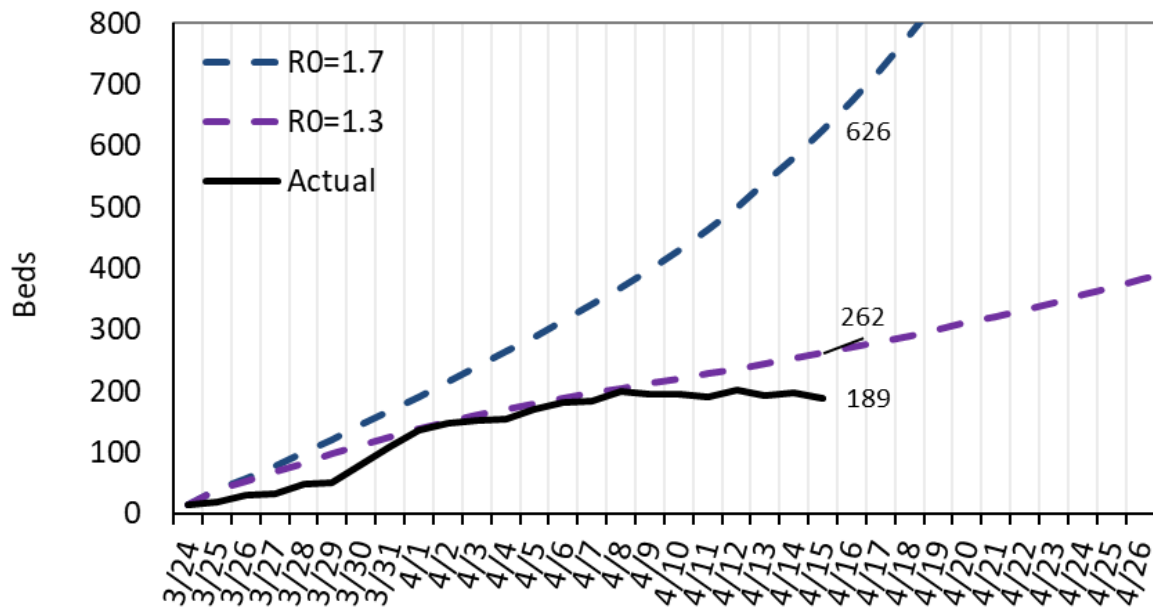# Region 7:
Infectious persons per day under four scenarios

Louisiana Department of Health

Legend:
- $R_0 = 2.4$ (baseline)
- $R_0 = 2.0$
- $R_0 = 1.7$ (effective social distancing)
- $R_0 = 1.3$ (shelter in place)

Number of predicted persons in the infectious period -total in Region VII under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
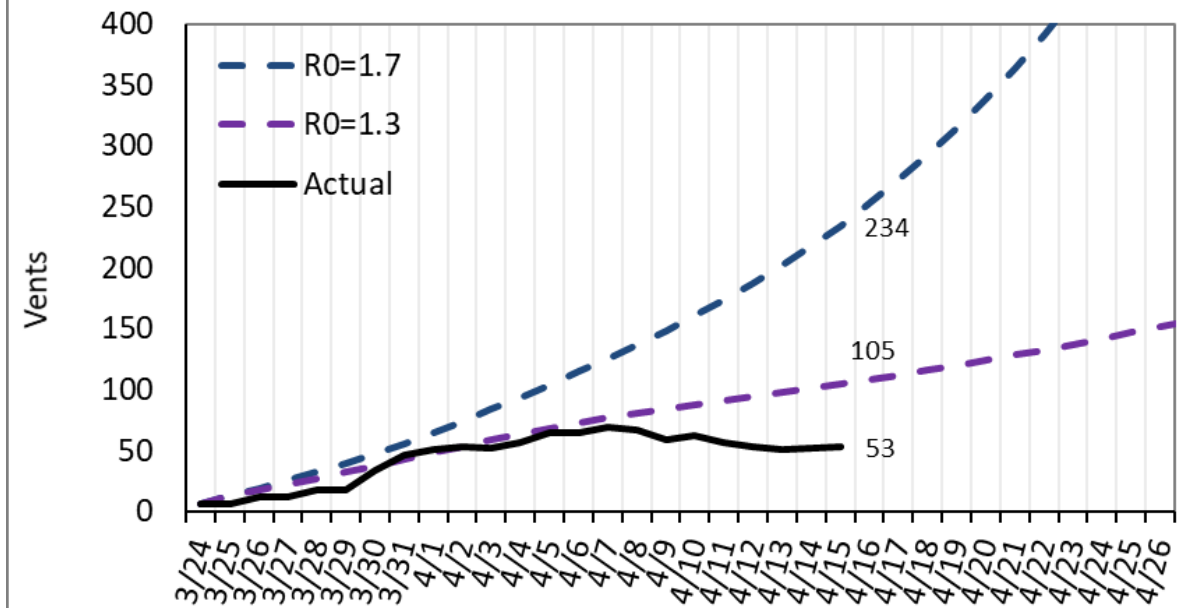
Hospitalization/Vent Projections – Region 7

*Actual COVID+ hospitalization line may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **60 COVID PUIs** in the hospital in Region 7.

Region 8:
Infectious persons per day under four scenarios

— R_0 = 2.4 (baseline)

— R_0 = 2.0

— R_0 = 1.7 (effective social distancing)

— R_0 = 1.3 (shelter in place)

Number of predicted persons in the infectious period -total in Region VIII under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)
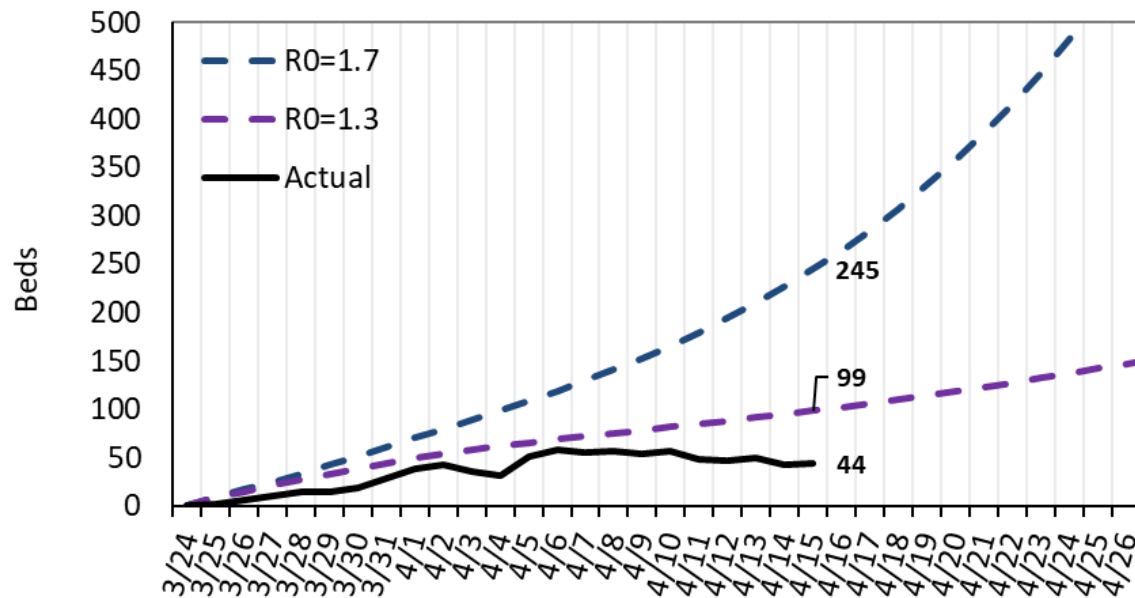
Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
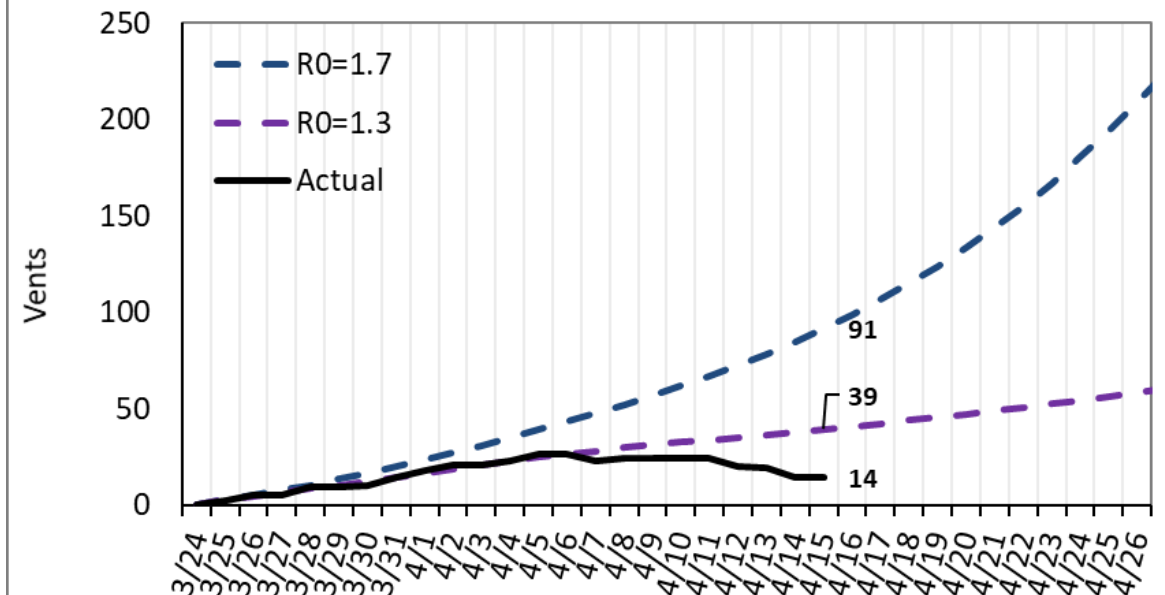
Hospitalization/Vent Projections – Region 8

*Actual COVID+ hospitalization line may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **98 COVID PUIs** in the hospital and **12 COVID PUIs** on vents in Region 8.

Region 9:
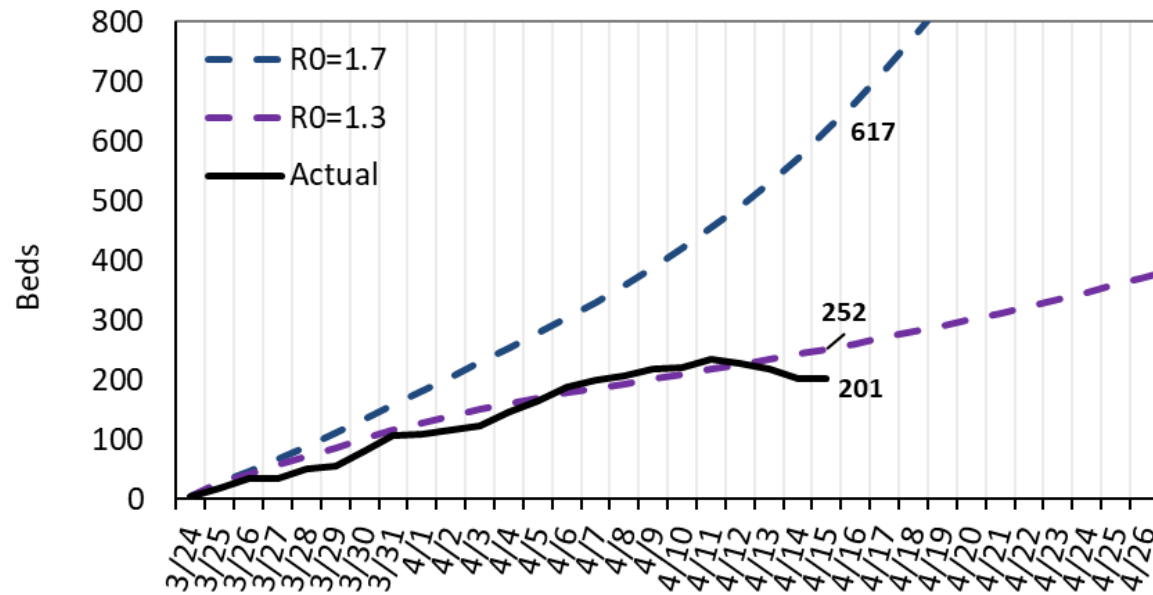# Infectious persons per day under four scenarios

R_0 = 2.4 (baseline)

R_0 = 2.0

R_0 = 1.7 (effective social distancing)

R_0 = 1.3 (shelter in place)

Note: These projection curves illustrate infection and hospitalization scenarios under different levels of social distancing interventions. They are not predictions of the future.
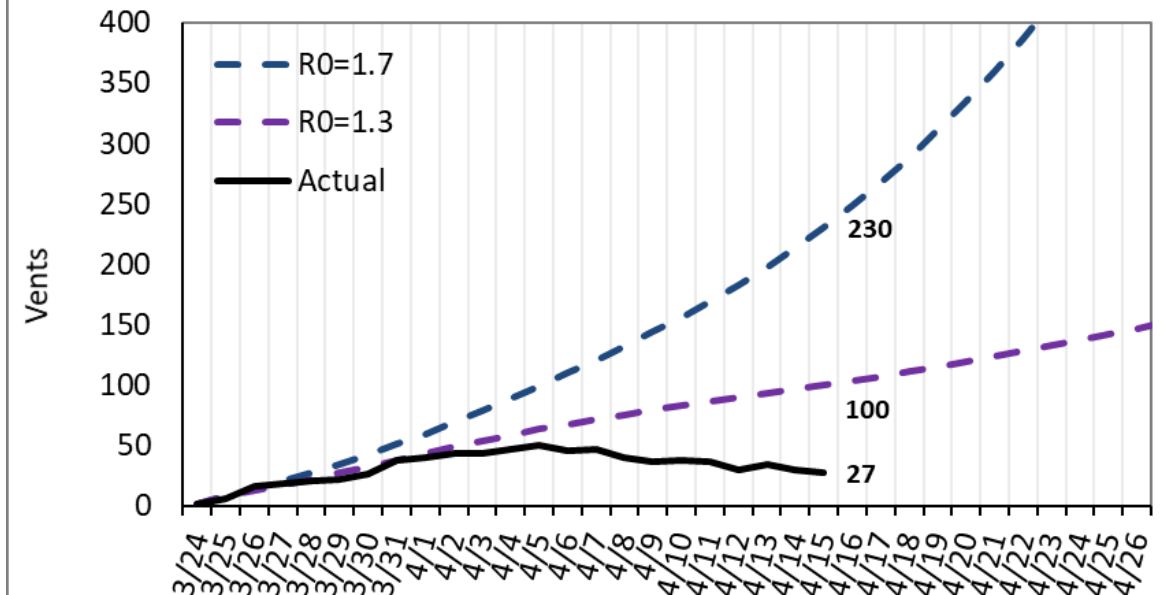

Number of predicted persons in the infectious period -total in Region IX under three non-pharmaceutical intervention scenarios and additional projection (R(0)=2.0)

Hospitalization/Vent Projections – Region 9

*Actual COVID+ hospitalization line may be an undercount because it does not include PUIs.
For example, on 4/15 there were an additional **52 COVID PUIs** in the hospital and **1 COVID PUI** on a vent in Region 9.