Special Problem entitled

A QUALITATIVE ANALYSIS AND SIMULATIONS OF AN SVEIRS BACTERIAL PNEUMONIA WITH VACCINATION MODEL

Dr. Cherrylyn . Alota
Special Project Adviser

Denise Trixie Cabañero
Name of Student Researcher

Example 1: Stable Disease-Free Equilibrium Point

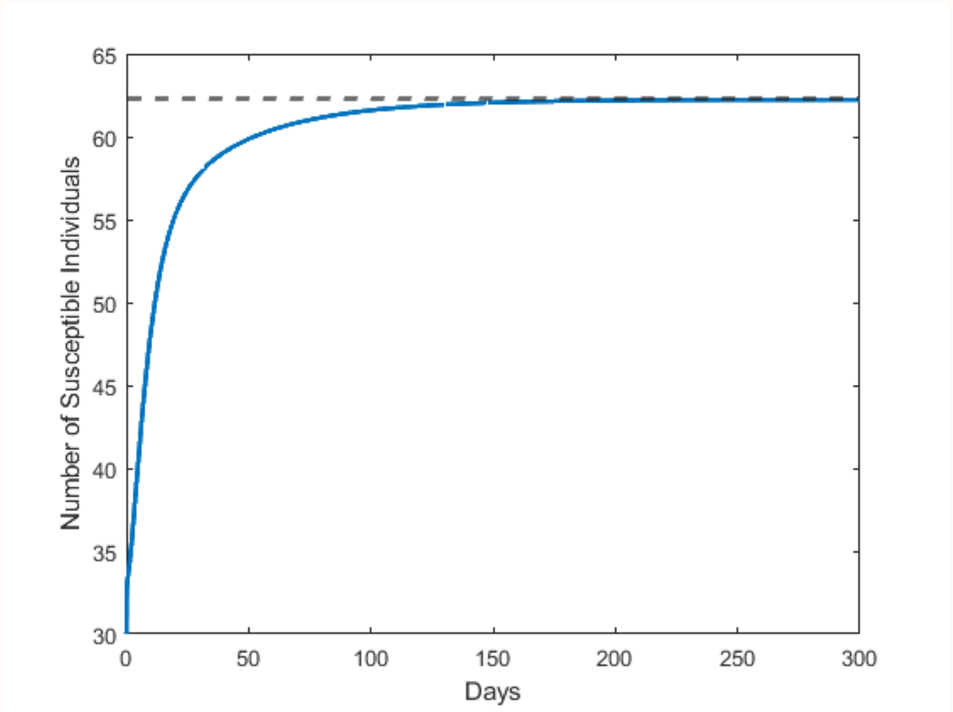

Figure 1.1 Suceptible Population Against Time

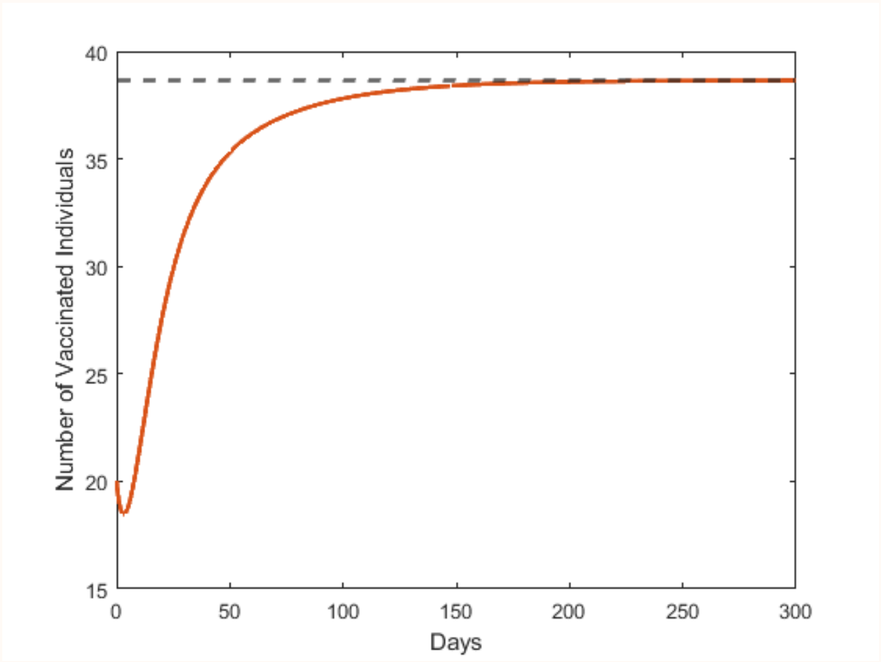

Figure 1.2 Vaccinated Population Against Time

Example 1: Stable Disease-Free Equilibrium Point

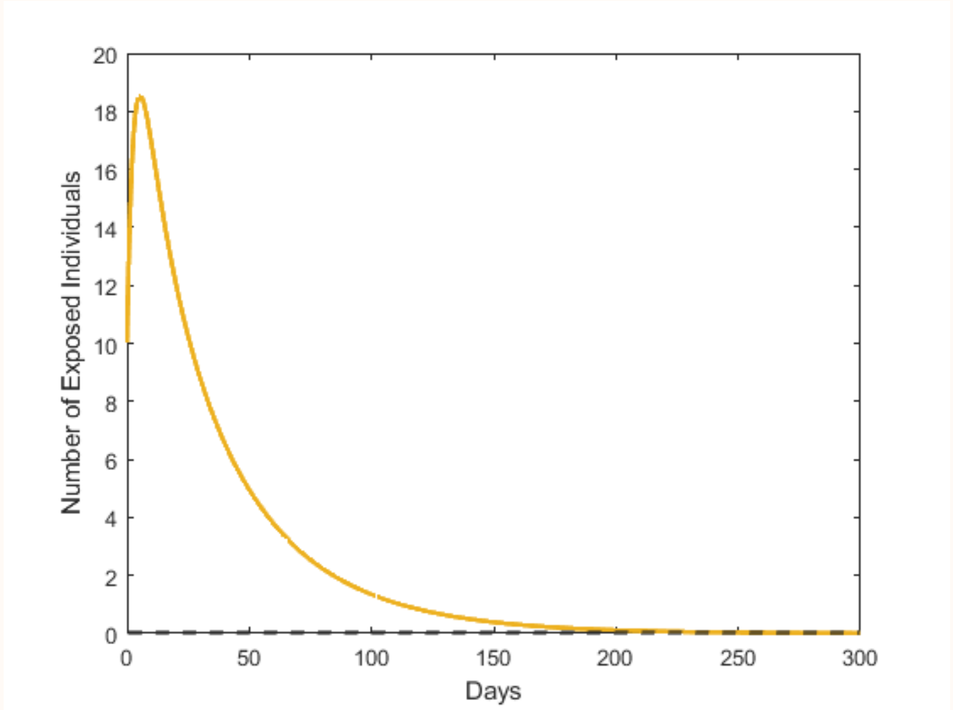

Figure 1.3 Exposed Population Against Time

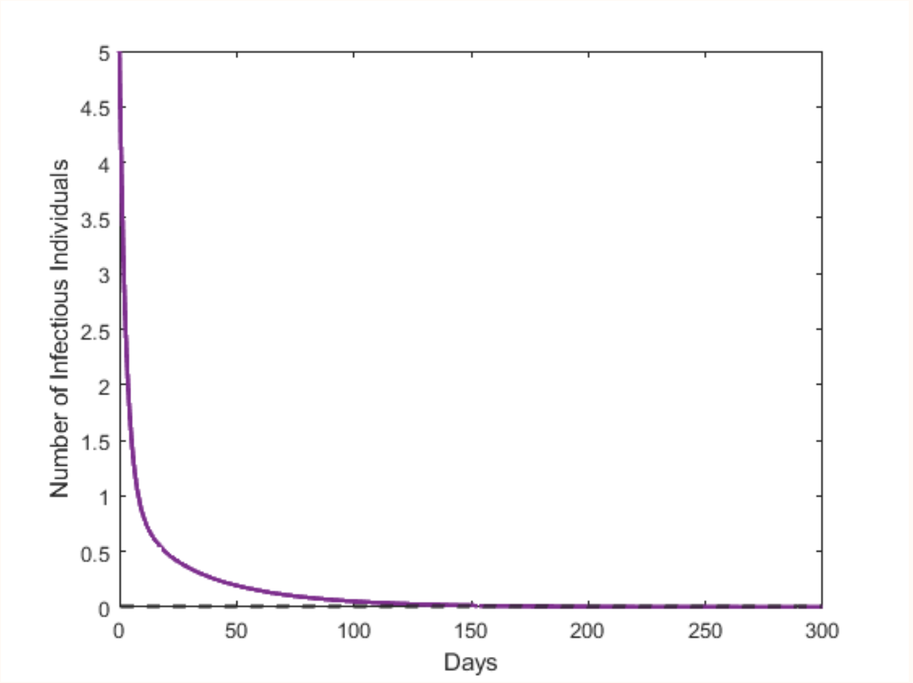

Figure 1.4 Infectious Population Against Time

Example 1: Stable Disease-Free Equilibrium Point

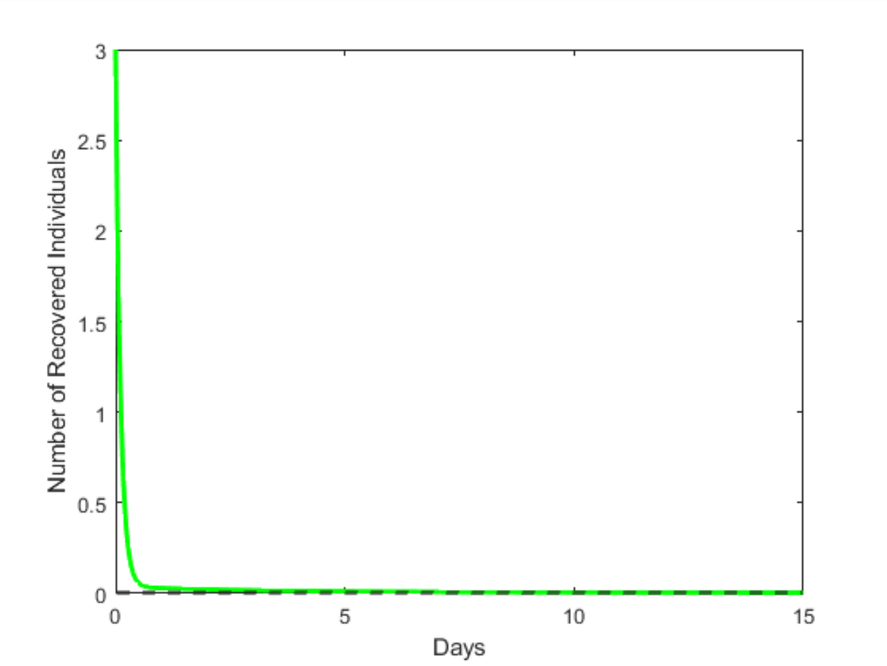

Figure 1.5 Recovered Population Against Time

Example 2: Unstable Disease-Free Equilibrium Point

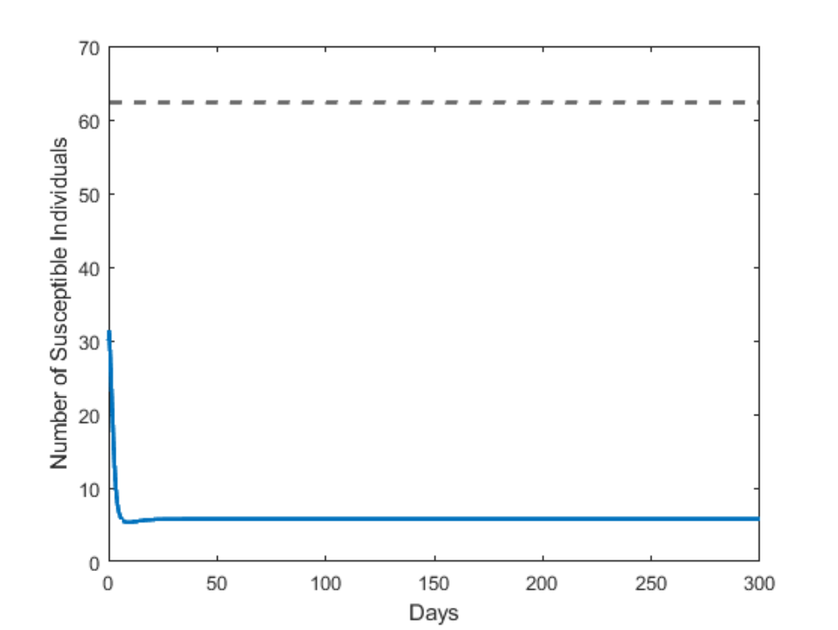

Figure 2.1 Suceptible Population Against Time

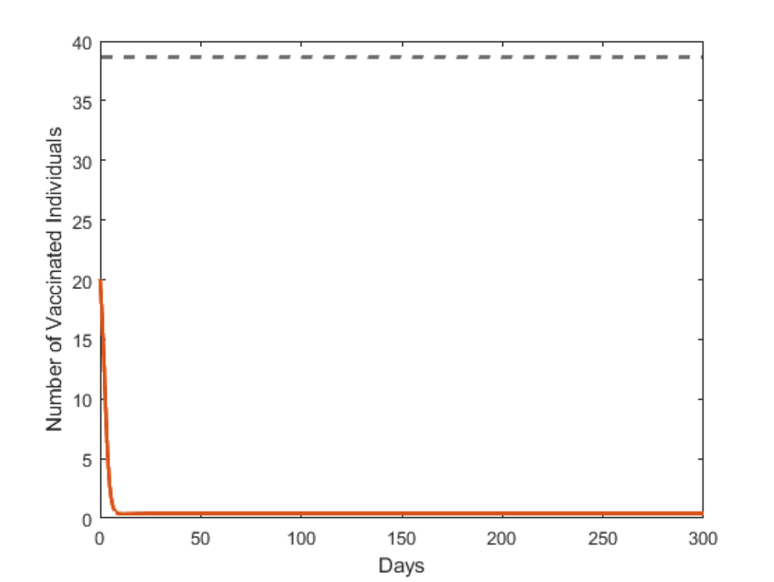

Figure 2.2 Vaccinated Population Against Time

Example 2: Unstable Disease-Free Equilibrium Point

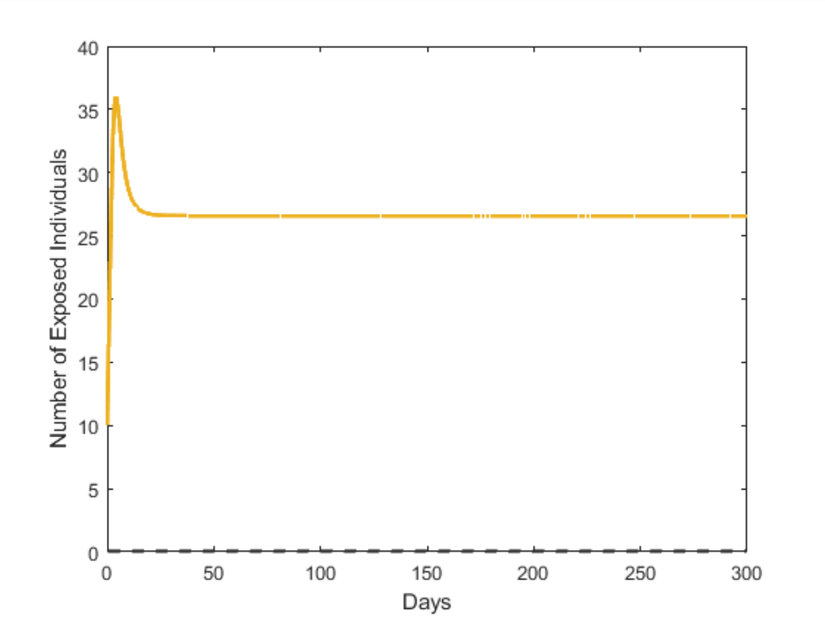

Figure 2.3 Exposed Population Against Time

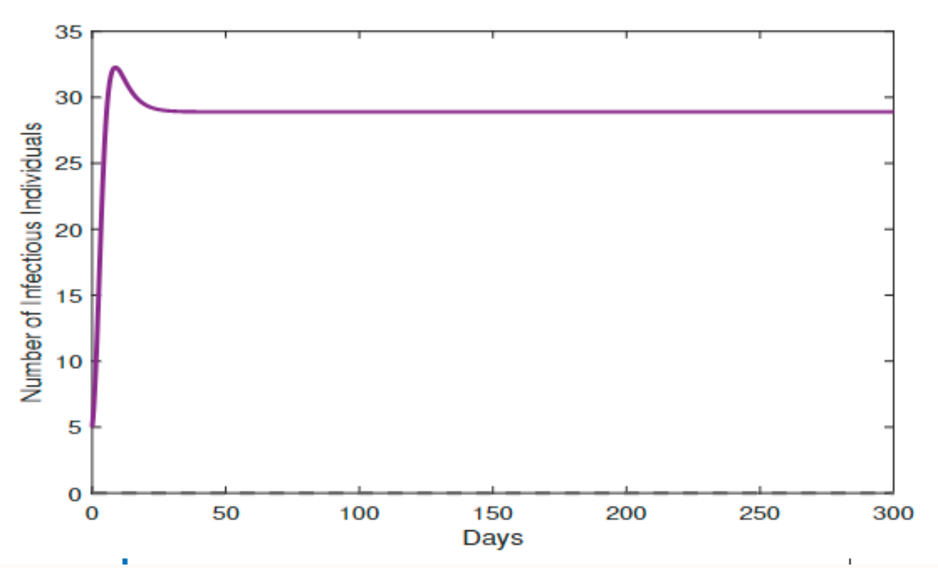

Figure 2.4 Infectious Population Against Time

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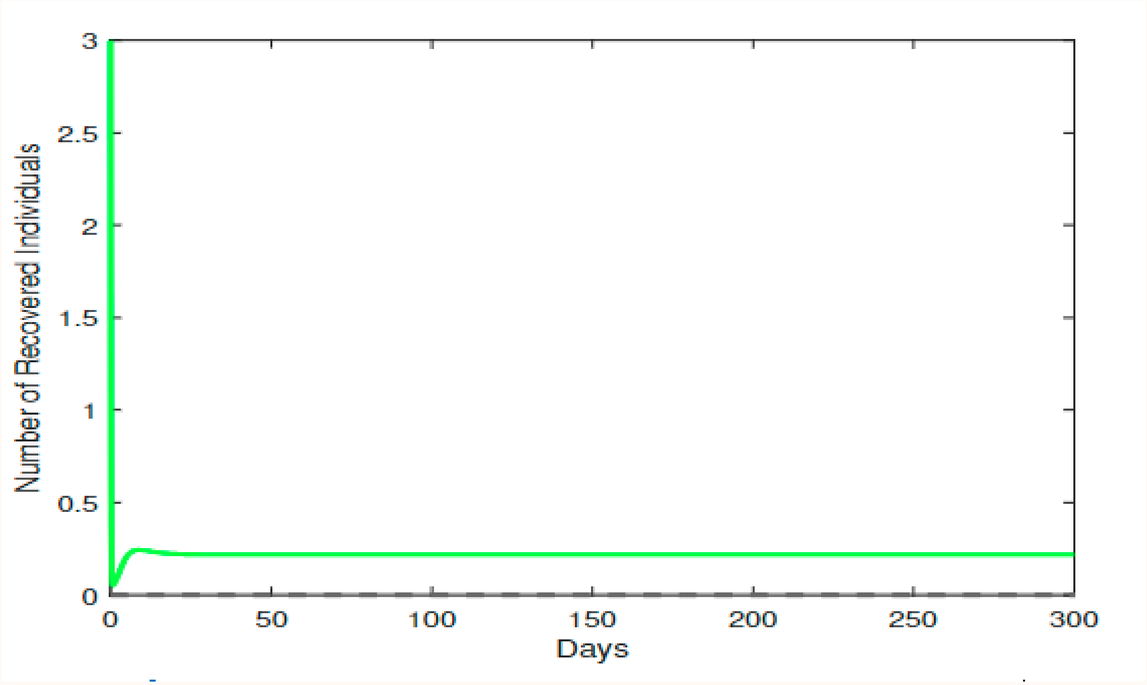

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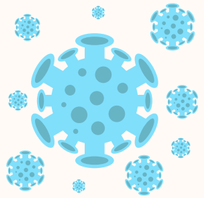

Example 3: Stable Endemic Equilibrium Point

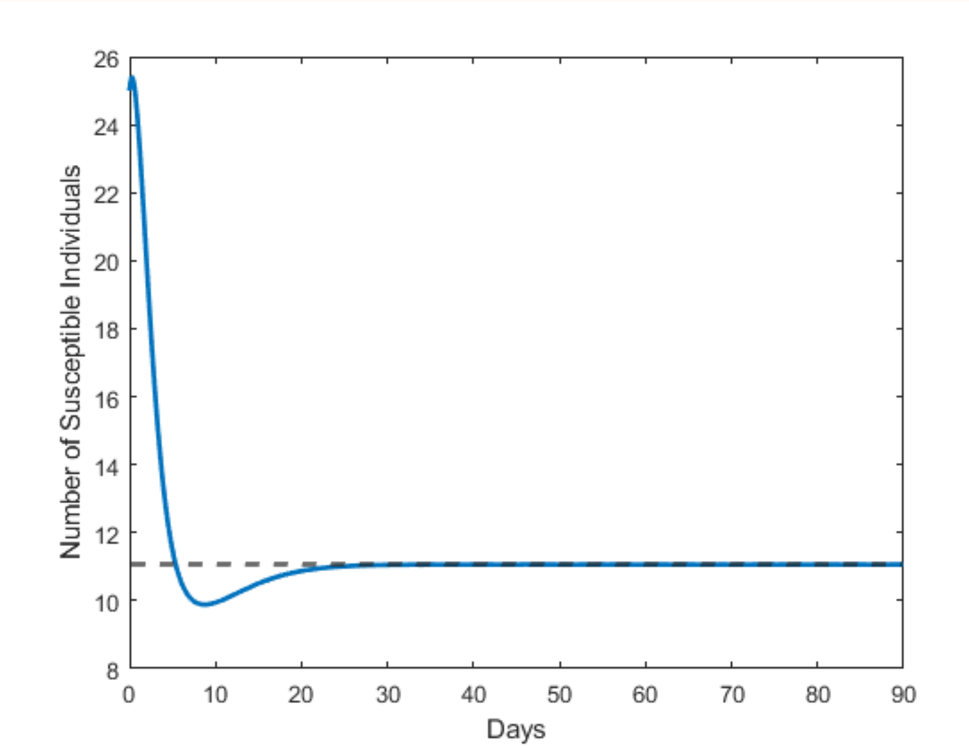

Figure 3.1 Suceptible Population Against Time

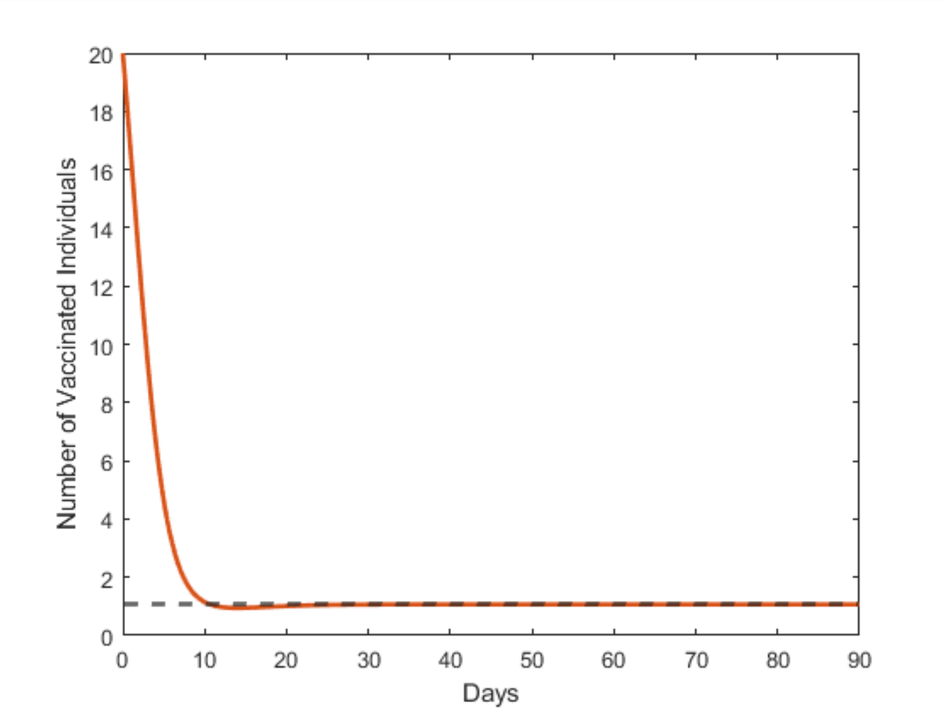

Figure 3.2 Vaccinated Population Against Time

Example 3: Stable Endemic Equilibrium Point

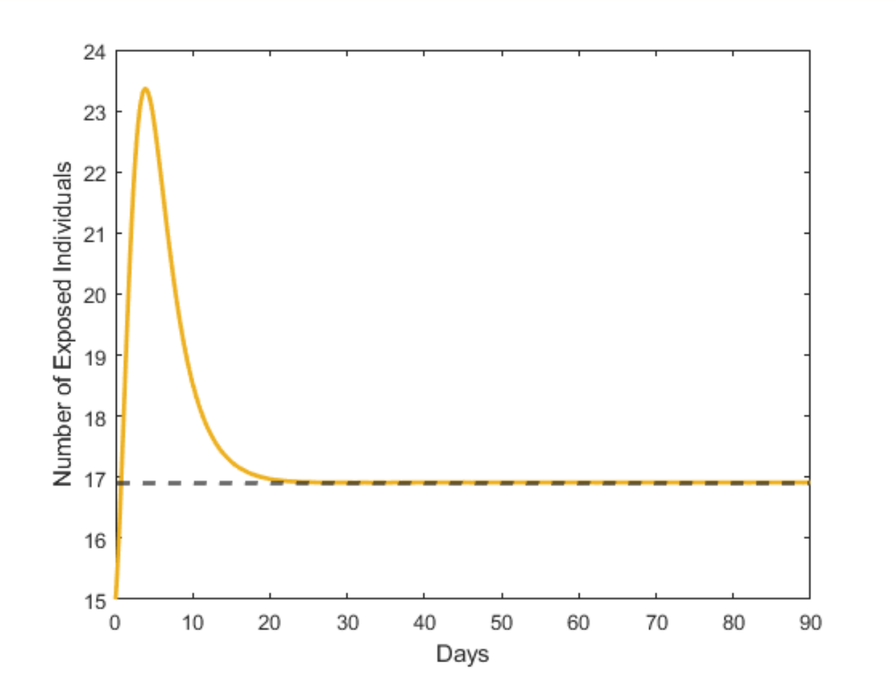

Figure 3.3 Exposed Population Against Time

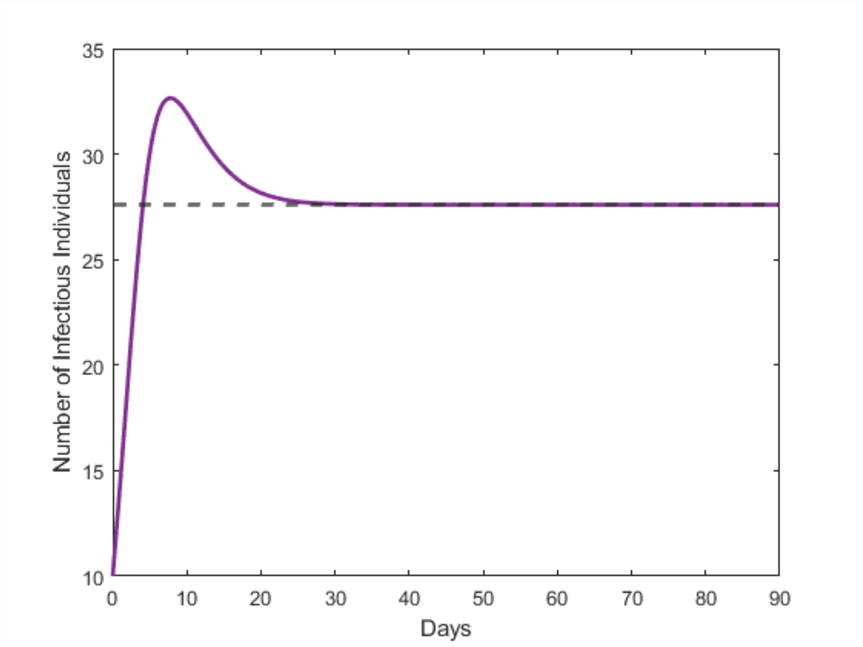

Figure 3.4 Infectious Population Against Time

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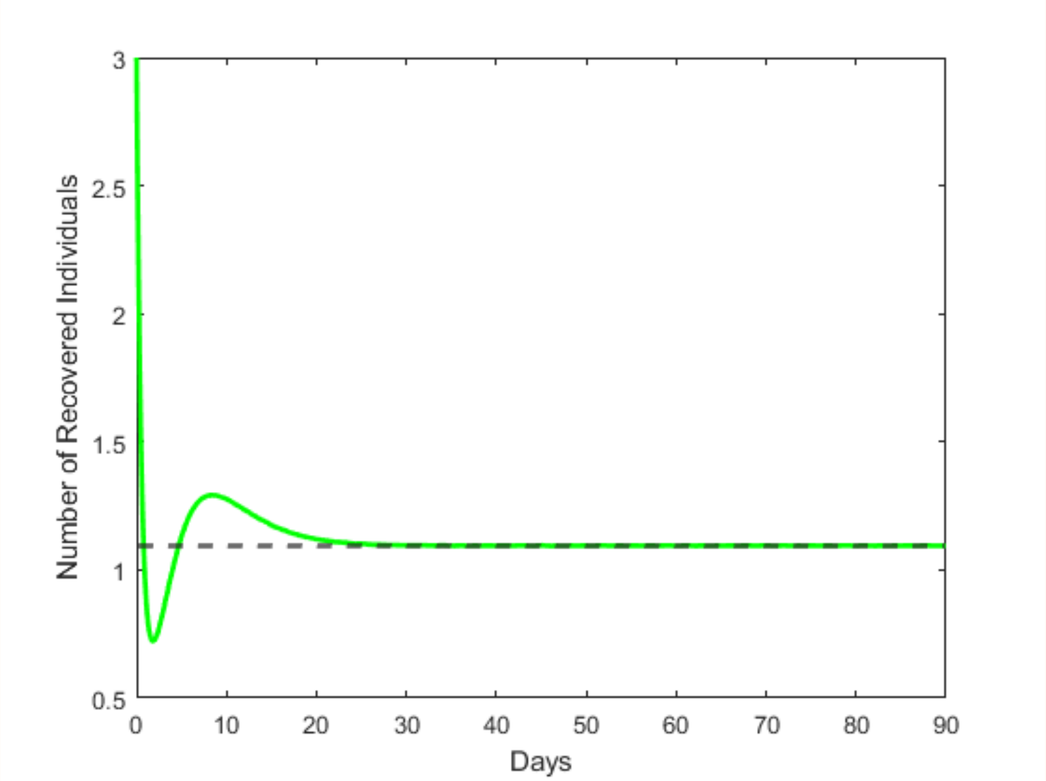

Figure 3.5 Recovered Population Against Time