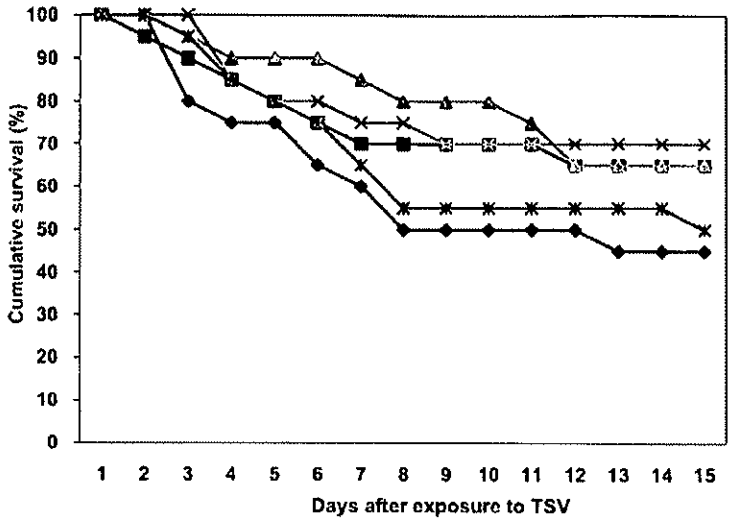
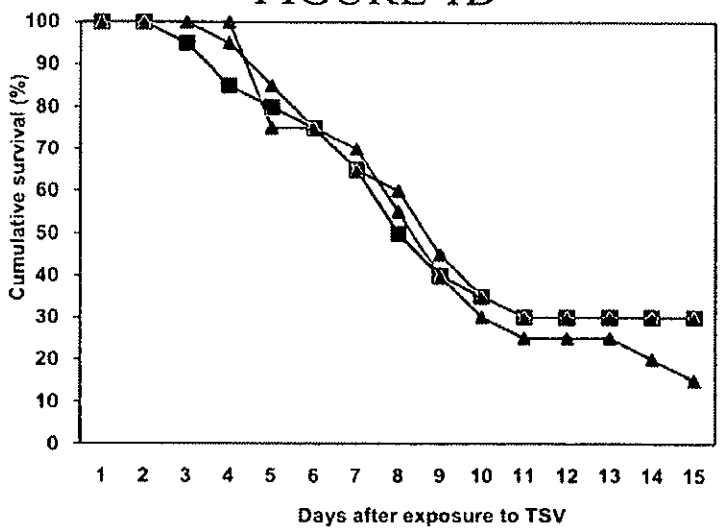
FIGURE 1A



Shrimp vaccinated with T1 and challenged with TSV

FIGURE 1B



Shrimp challenged with TSV (no vaccination)

FIGURE 2

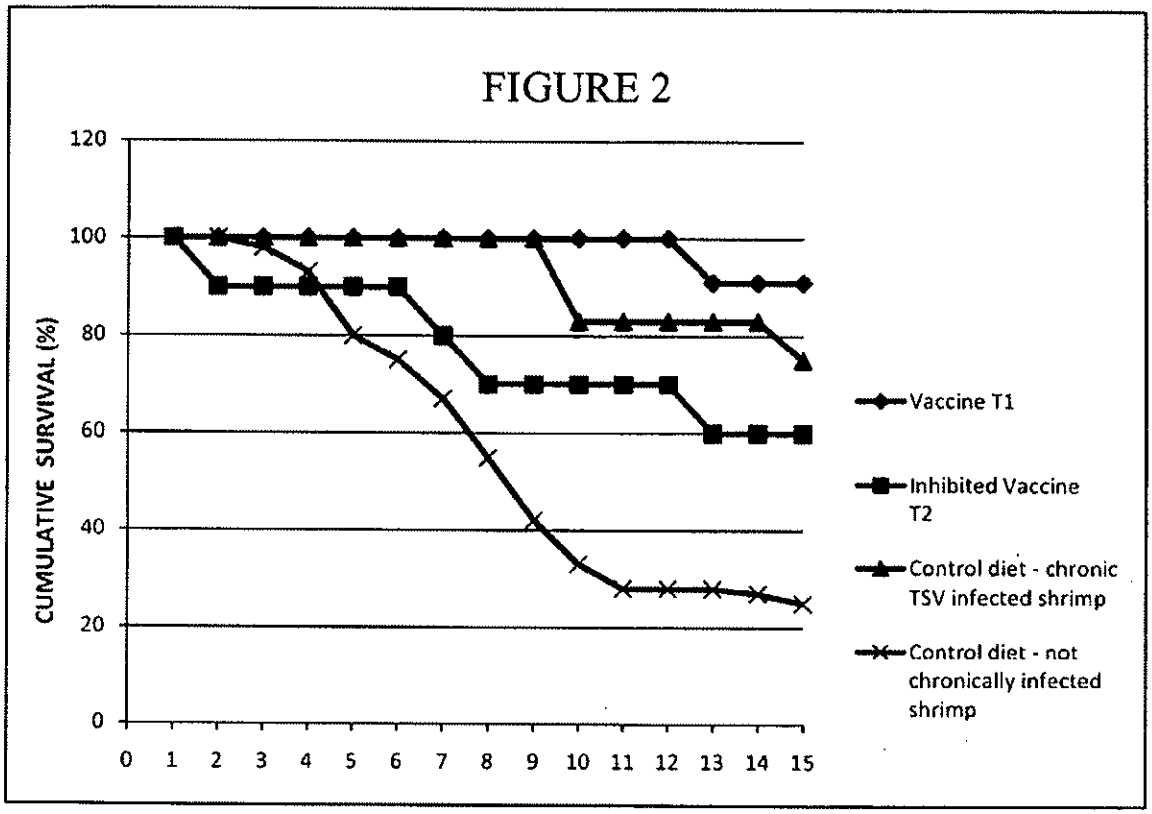
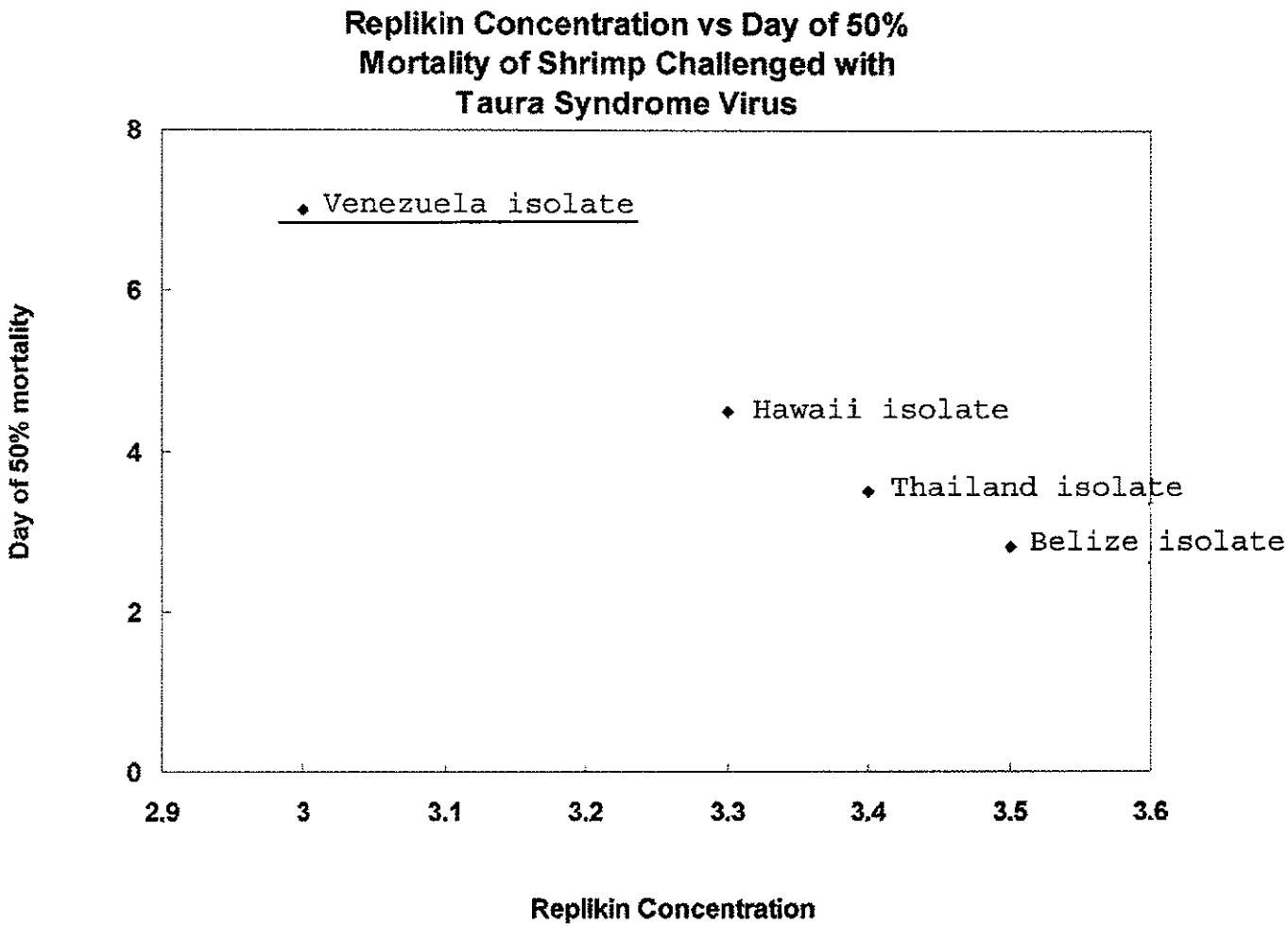

120
100
80
60
40
20
0
CUMULATIVE SURVIVAL (%)
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Vaccine T1
Inhibited Vaccine T2
Control diet - chronic TSV infected shrimp
Control diet - not chronically infected shrimp

FIGURE 3


Replikin Concentration vs Day of 50% Mortality of Shrimp Challenged with Taura Syndrome Virus
Day of 50% mortality
8
6
4
2
0
Venezuela isolate
Hawaii isolate
Thailand isolate
Belize isolate
2.9
3
3.1
3.2
3.3
3.4
3.5
3.6
Replikin Concentration

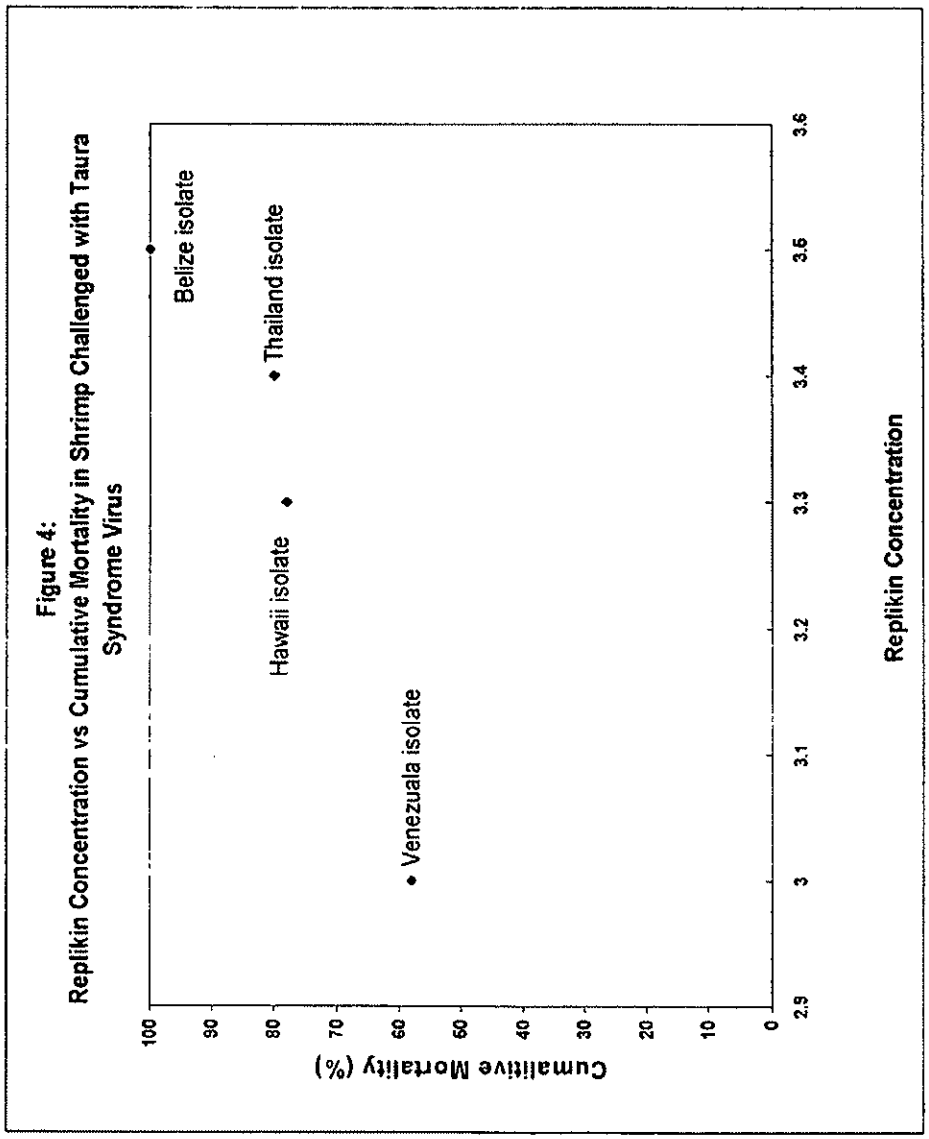


Figure 4:
Replikin Concentration vs Cumulative Mortality in Shrimp Challenged with Taura Syndrome Virus
Cumalitive Mortality (%)
100
90
80
70
60
50
40
30
20
10
0
2.9
3
3.1
3.2
3.3
3.4
3.5
3.6
Replikin Concentration
Belize isolate
Thailand isolate
Hawaii isolate
Venezuala isolate

FIGURE 5

Cumulative survival of *Litopenaeus vannamei per os* challenged with TSV isolates: A: Belize; B: Thailand; C: Hawaii; D: Venezuela.

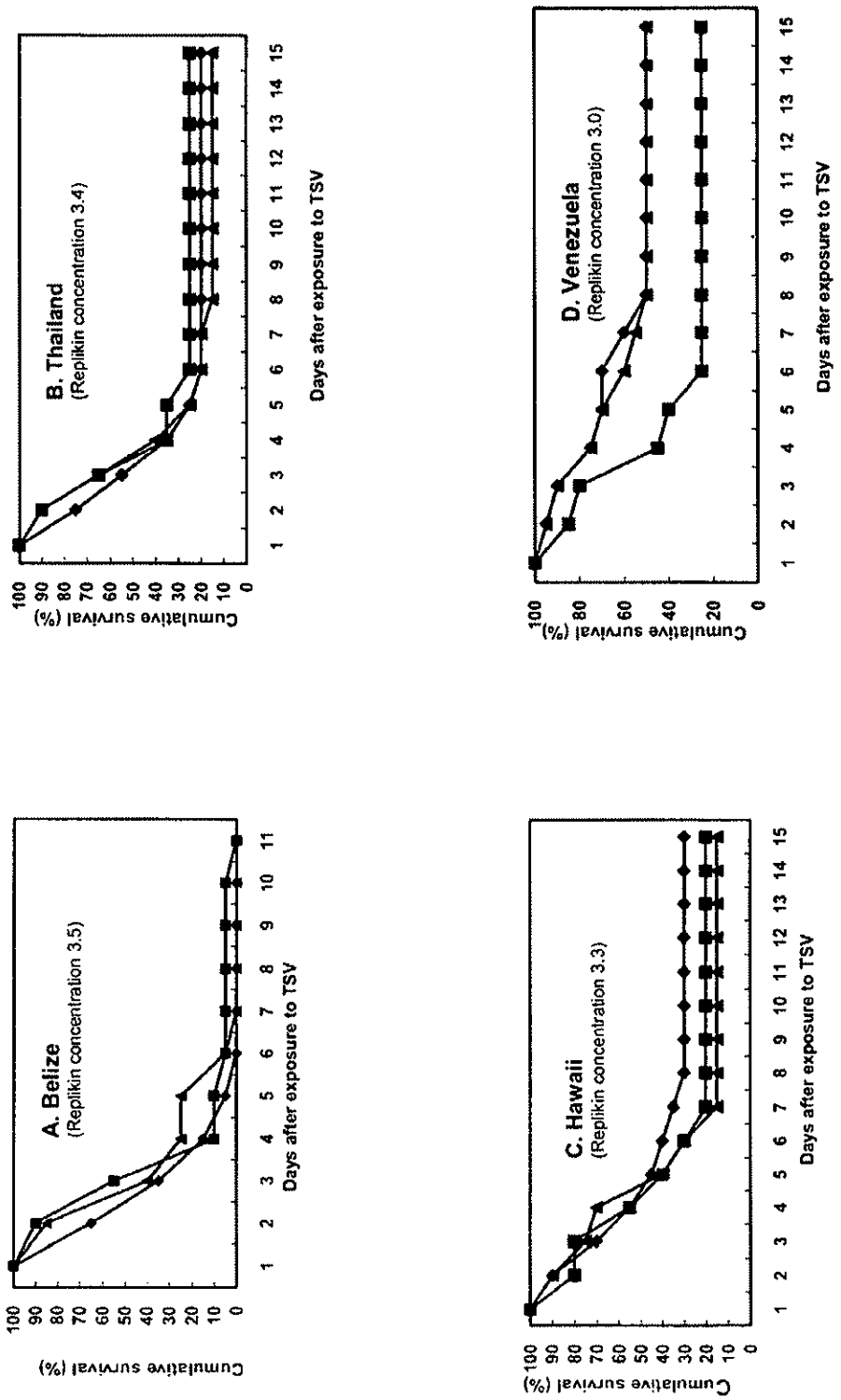


FIGURE 6

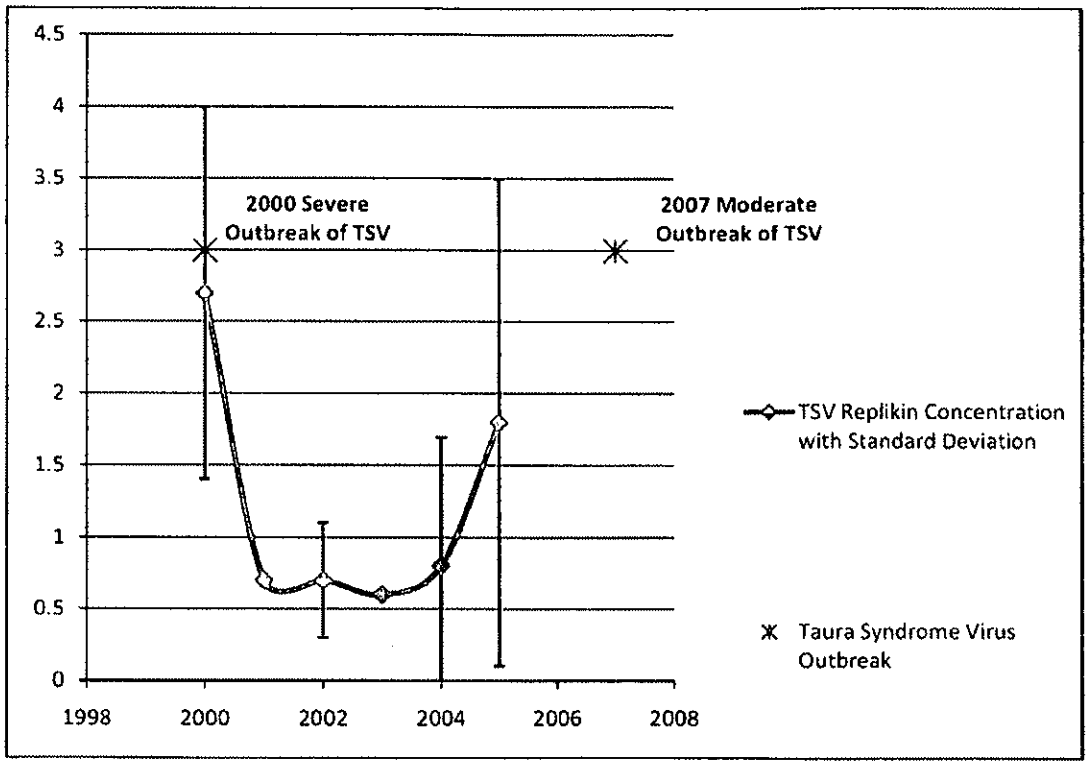

4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
1998
2000
2002
2004
2006
2008
2000 Severe Outbreak of TSV
2007 Moderate Outbreak of TSV
TSV Replikin Concentration with Standard Deviation
Taura Syndrome Virus Outbreak

FIGURE 7

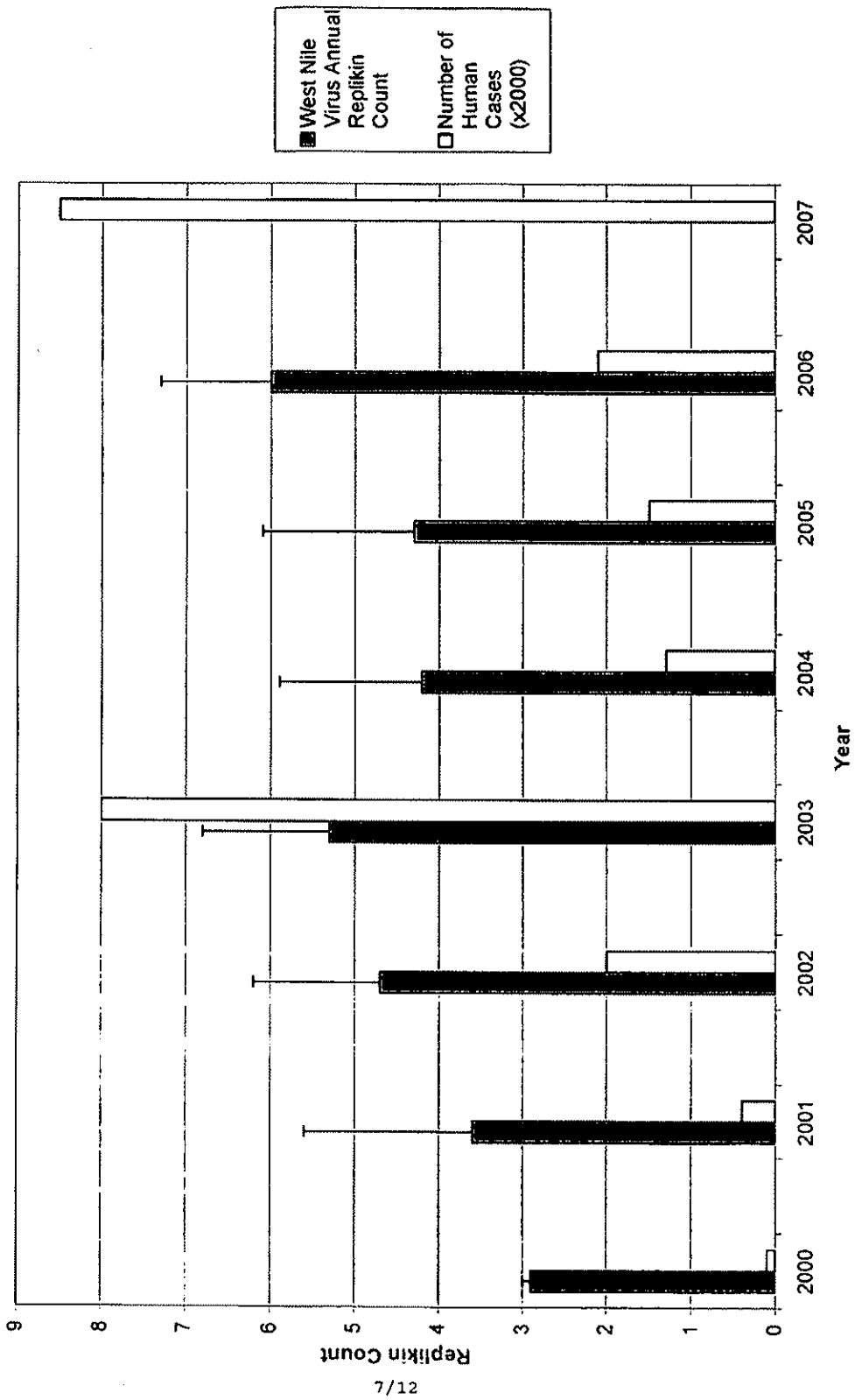
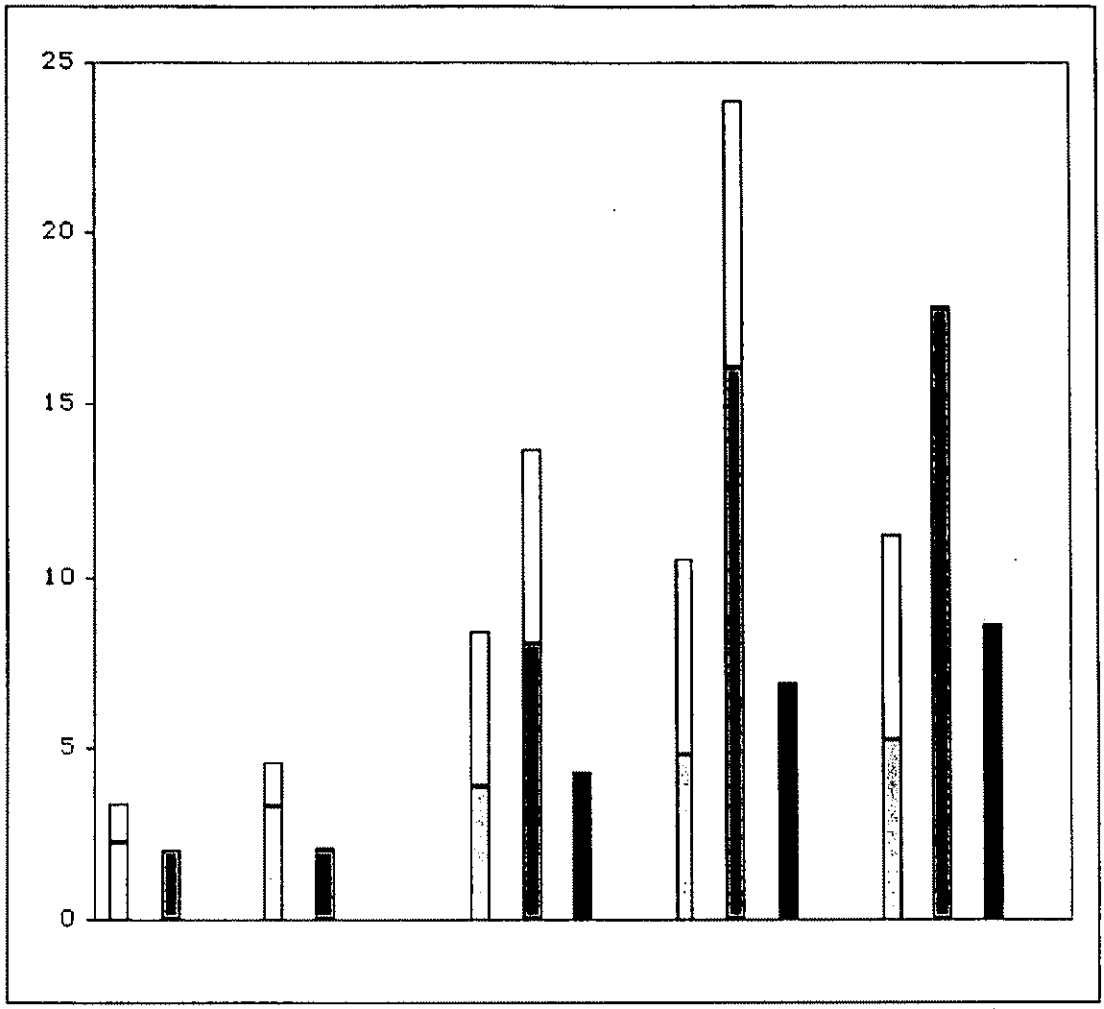

West Nile Virus Annual Replikin Count
Number of Human Cases (x2000)
Replikin Count
Year
0
1
2
3
4
5
6
7
8
9
2000
2001
2002
2003
2004
2005
2006
2007

FIGURE 8



HUMAN H5N1
Light Gray = Whole virus Replikin Concentration (Number of Replikins per 100 amino acids)
Dark Gray = Replikin Peak Gene Replikin Concentration
Uncolored Bar = Standard Deviation
Black = % Human Mortality Rate (x 10)

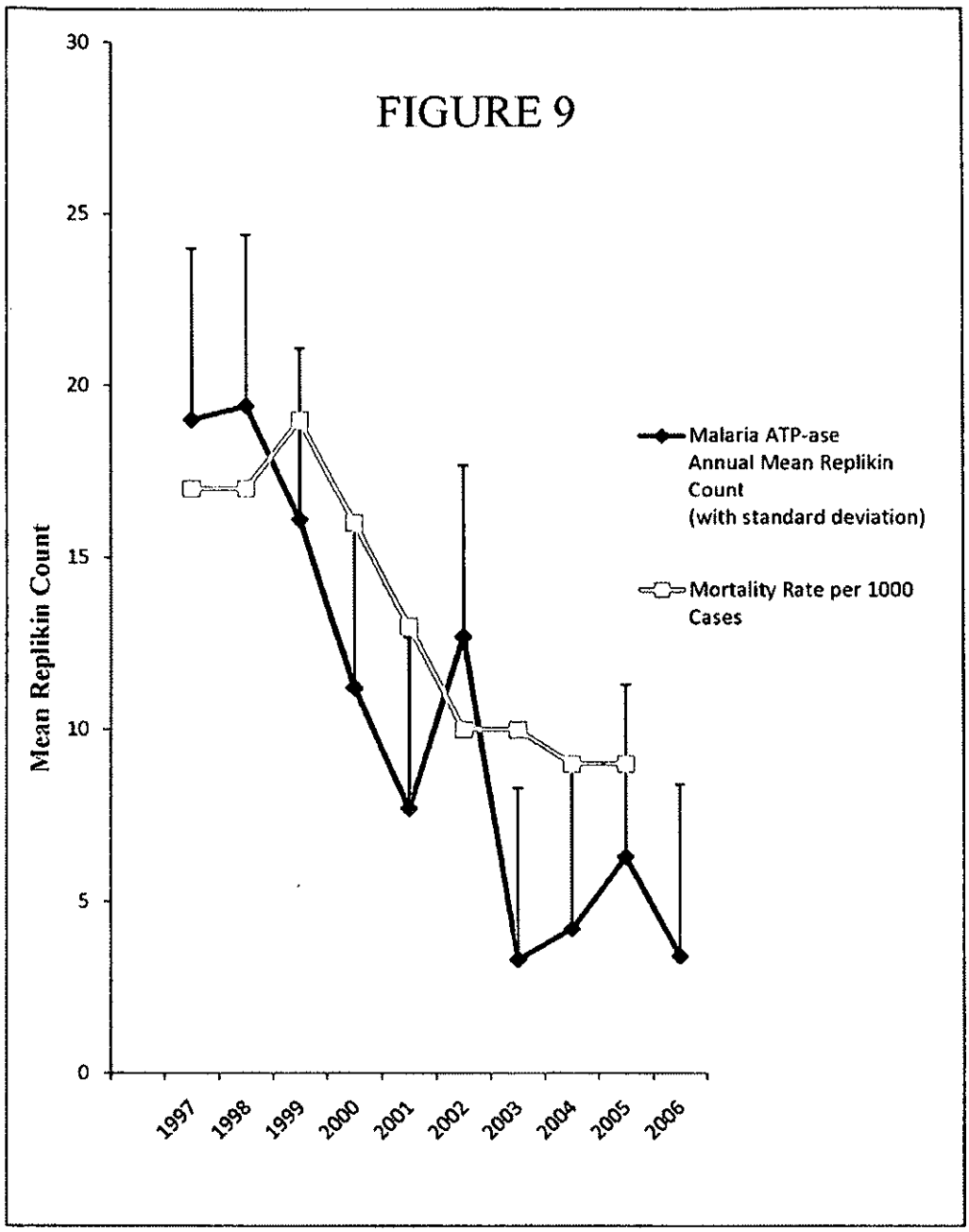
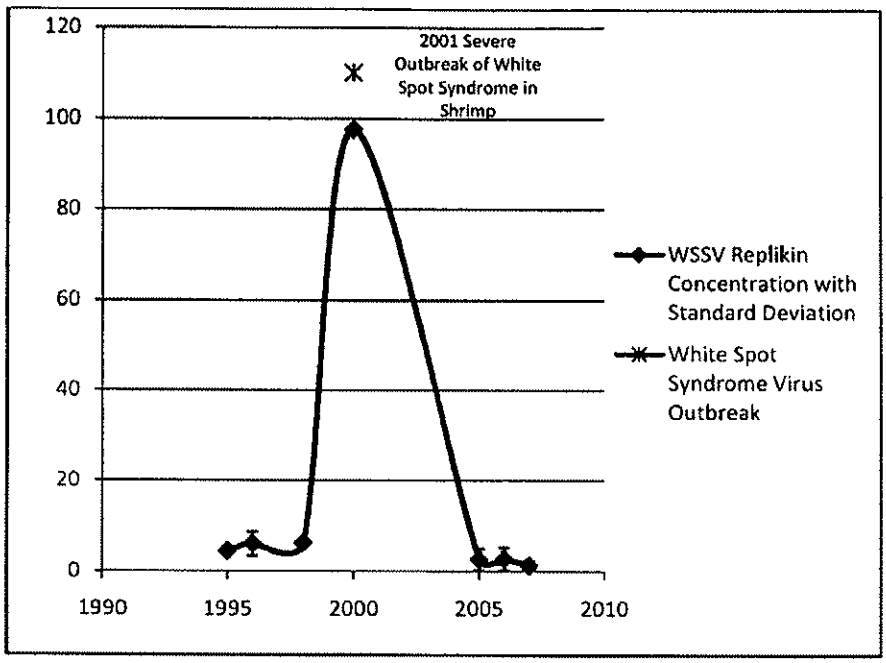


FIGURE 9
Mean Replikin Count
30
25
20
15
10
5
0
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
Malaria ATP-ase Annual Mean Replikin Count (with standard deviation)
Mortality Rate per 1000 Cases

FIGURE 10


120
100
80
60
40
20
0
1990
1995
2000
2005
2010
2001 Severe Outbreak of White Spot Syndrome in Shrimp
WSSV Replikin Concentration with Standard Deviation
White Spot Syndrome Virus Outbreak

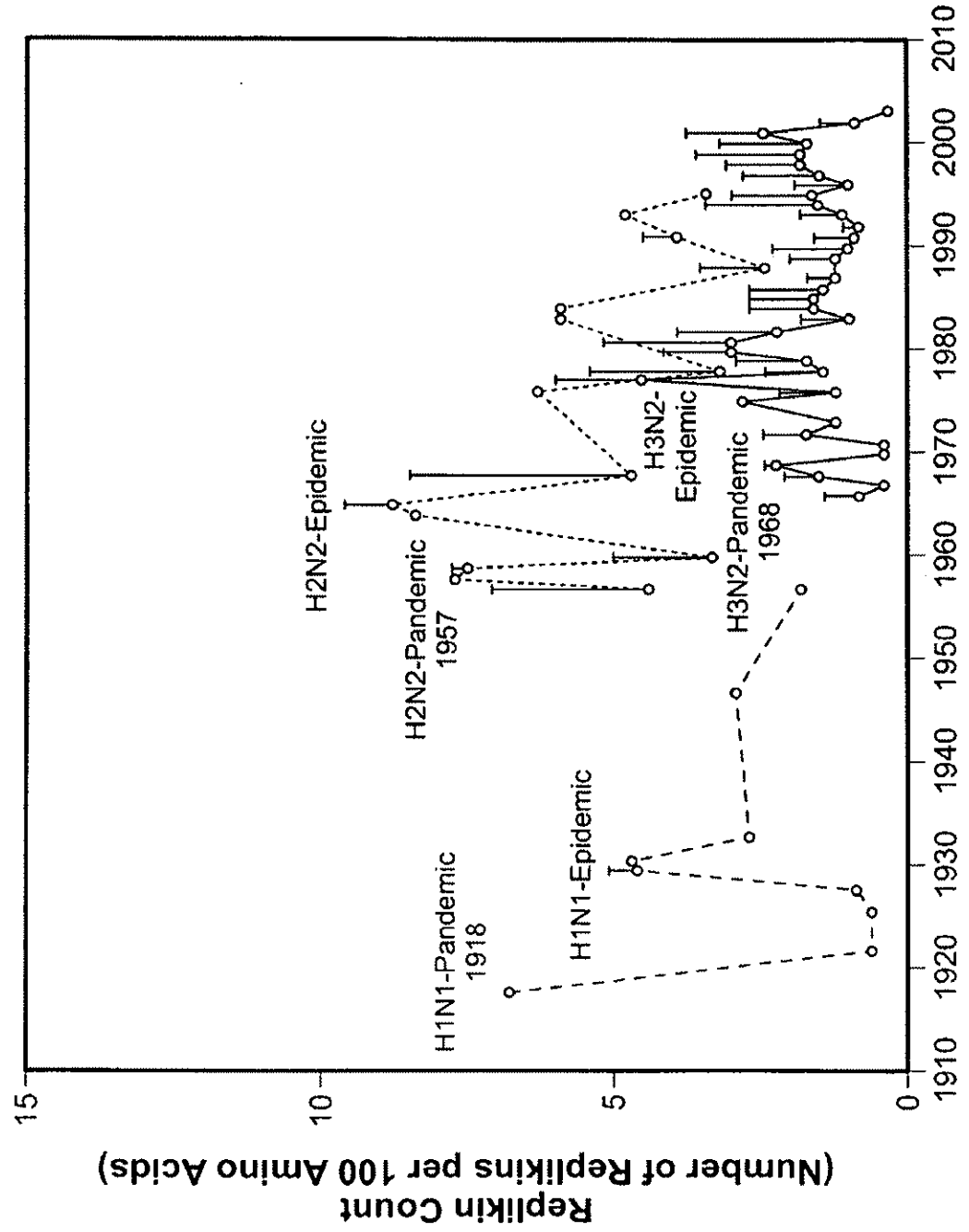

Replikin Count
(Number of Replikins per 100 Amino Acids)
15
10
5
0
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
Year
H2N2-Epidemic
H2N2-Pandemic
1957
H1N1-Pandemic
1918
H1N1-Epidemic
H3N2-
Epidemic
H3N2-Pandemic
1968

FIG. 11

FIGURE 12

Increase in Replikin Count of Replikin Peak Gene in pB1 Genomic Area
One to Two Years in Advance of Equine Influenza Epidemics (E) 1977-2007

