Reasult of model for network with 40 nodes unawere probability 0.4 and recover probability 0.0 Probability of being aware Derivation of being aware 0.92 0.93 0.94 0.92 0.95 0.94 0.97 0.97 1.6 0.3 0.5 0.1 0.1 -0.2 0.3 -0.1 0.3 0 0 -0.95 0.2 0.94 0.95 0.95 0.95 0.97 0.97 2.3 0.3 0.2 0.4 0.1 0 -0.1 0.1 0 0.9 0.94 o. 0.90 0.92 0.93 0.93 0.94 0.95 0.94 0.97 0.97 0.6 0.1 0 0.1 0.1 -0.1 0.3 0 0.4 0.91 0.9 0.95 0.94 0.95 0.94 0.97 0.97 1.9 0.4 0.1 -0.1 0.5 -0.1 0.1 -0.1 0.3 0 0.85 0.91 0.92 0.93 0.91 0.96 0.93 0.96 0.97 1.6 0.3 0.5 0.1 0.1 -0.2 0.5 -0.3 0.3 0.1 0 0.80 0.89 0.94 0.95 0.95 0.94 0.94 0.97 0.96 0.1 0.5 0.1 0 -0.1 0 0.3 -0.1 1.8 0.4 0.93 0.94 0.96 0.96 0.3 0.1 0.5 -0.1 0.1 -0.1 0.2 0.1 0 0.89 0.94 0.93 0.95 0.75 o. 0.93 0.91 0.94 0.96 0.96 0.5 0.6 -0.1 -0.2 0.3 -0.1 0.1 0.2 0 0.94 0.93 0.94 1.8 0.89 0.92 0.93 0.94 0.94 0.94 0.96 0.96 -0.1 0.3 0.1 0.1 0 0 0.2 0 - 0.70 2.2 0.5 0.89 0.9 0.93 0.92 0.96 0.94 0.96 0.97 1.6 -0.1 0.1 0.3 -0.1 0.4 -0.2 0.2 0.1 0.9 - 0.65 0.93 0.95 0.96 0.96 0.2 0.4 0.2 0 0.1 0 0 0.89 0.95 0.96 0.96 1.6 0.4 0 0.3 0.4 0.5 0.6 0.7 0.8 1.0 0.1 0.2 0.3 0.5 0.6 0.7 8.0 0.9 1.0 0.9 0.0 0.4 beta beta Average of derivation of being aware by lambda Average of aware prob by lambda 0.21 0.11 -3e-16 0.1 -0.036 0.22 0.0091 1.8 0.25 0.93 0.94 0.94 0.95 0.94 0.96 0.97 0.6 0.3 0.4 0.5 0.7 0.8 0.9 1.0 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 8.0 0.9 1.0 beta beta Probability of being infected Derivation of being infected 0.74 0.79 0.74 0.81 0.87 3.8 1.3 0.5 0.1 -0.3 0.3 0.2 -0.5 0.7 0.6 0 - 0.8 0.86 0.87 0.73 0 1 -0.3 -0.4 1.1 0.1 -1.4 0.72 0.72 0.82 0.79 0.75 3.8 0.8 0.6 o. 0.72 0.74 0.73 0.78 0.82 0.79 0.76 0.82 3.9 0.4 0.9 0.2 -0.1 0.5 0.4 -0.3 -0.3 0.6 - 0.7 0.69 0.75 0.76 0.8 0.82 0.76 0.6 0.1 -0.3 0.7 -0.2 -0.6 0.77 0.84 4.4 0.5 0 0.4 0.73 0.75 0.73 0.78 0.83 0.81 0.81 0.83 - 0.6 0.2 -0.2 0.5 0.5 -0.2 0 0.2 3.7 1.2 0.4 lambda 0.7 0.87 0.85 -0.1 0.9 -0.2 0.77 0.76 0.78 0.75 0.78 3.7 0.8 0.5 0.7 0.2 -0.30.3 Ö 0.5 0.67 0.69 0.73 0.79 0.77 0.2 0.2 0.4 0.7 0.1 -0.2 0.8 0.78 3.8 0.7 0 -0.2 0.8 0.67 0.77 0.75 0.8 0.75 0.82 0.82 0.7 0 -0.2 0.5 0 -0.5 0.7 0 0.8 4 - 0.4 0.67 0.73 0.84 0.77 0.82 0.75 0.84 0.87 -0.5 0.6 1.1 -0.7 0.5 -0.7 0.9 0.3 3.8 1.4 0.8 0.77 - 0.3 -0.2 8.0 0.5 0.5 -0.3 -0.1 0.67 0.65 0.73 0.78 0.83 0.79 3.3 -0.2 -0.2 1.6 0.83 0.87 0.2 0.9 -0.7 0.7 -0.6 0 1 0.72 0.74 0.76 0.83 0.77 0.77 3.3 1.8 0.1 0 - 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 beta beta Average of being infected prob by lambda Average of derivation of being infected by lambda 0.79 0.81 0.81 3.8 0.23 0.33 0.31 0.17 0.16 -0.11 0.25 0.0091 0.7 0.73 0.77 0.78 0.8 1 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 0.0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 8.0 0.9 1.0

beta

- 2.0

- 1.5

- 1.0

- 0.5

- 0.0

- 3

- 2

0.84

0.85

0.82

0.86

0.83

0.84

0.85

0.83

0.85

0.81

0.83

0.1

0.1

0.58

0.58

0.59

0.64

0.57

0.57

0.58

0.6

0.58

0.53

0.53

0.1

0.58

0.1

0.68

0.62

0.65

0.67

0.67

0.66

0.68

0.65

0.63

0.65

0.67

0.0

99.0 - avg

0.0

0.2

0.2

0.2

0.2

0.2

0.2

0.2

0.2

0.2

0.2

0.2

0.0

0.2

0.0

O

lambda .6 0.5 0.4 0.4

0.8

o.

0

lambda .6 0.5 0.4

o.

0.87

0.88

0.86

0.9

0.86

0.88

0.88

0.88

0.9

0.9

0.87

0.2

0.88

0.2

0.71

0.66

0.63

0.69

0.69

0.65

0.65

0.67

0.72

0.69

0.71

0.2

0.68

0.2

beta