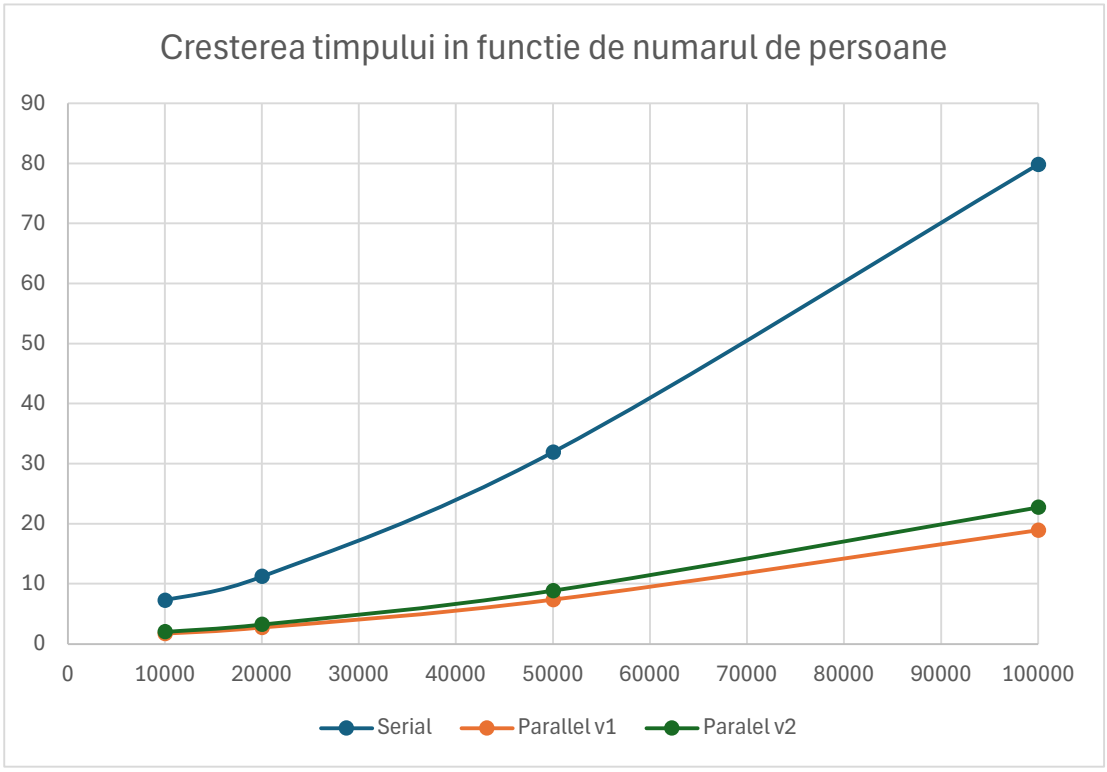
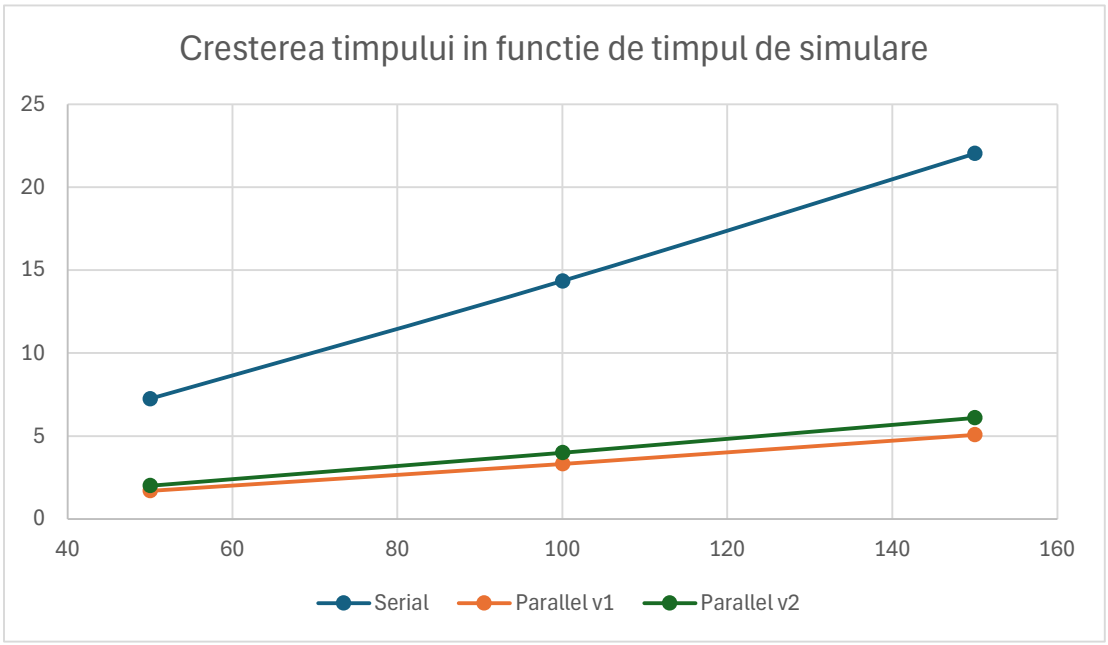
| Simulation time is 50 and thread number is 5: | | | | | |
|---|---|---|---|---|---|
| Person number | Serial Time | Parallel Time v1 | Parallel time v2 | Speedup | |
| 10000 | 7.251778 | 1.719243 | 2.016292 | 4.2180064 | 3.596591168 |
| 20000 | 11.225926 | 2.725856 | 3.24211 | 4.1183122 | 3.462537051 |
| 50000 | 31.918359 | 7.362754 | 8.86593 | 4.3351114 | 3.600114032 |
| 100000 | 79.841153 | 18.944076 | 22.74137 | 4.214571 | 3.510833032 |

| Simulation time is 100 and thread number is 5: | | | | | |
|---|---|---|---|---|---|
| Person number | Serial Time | Parallel Time v1 | Parallel time v2 | Speedup | |
| 10000 | 14.358048 | 3.335065 | 4.002571 | 4.3051779 | 3.587206323 |
| 20000 | 21.110597 | 5.258612 | 6.28255 | 4.0144808 | 3.360195621 |
| 50000 | 59.109685 | 13.602453 | 16.56716 | 4.3455166 | 3.567882787 |
| 100000 | 141.9743 | 34.115749 | 40.72607 | 4.1615472 | 3.486079064 |

| Simulation time is 150 and thread number is 5: | | | | | |
|---|---|---|---|---|---|
| Person number | Serial Time | Parallel Time v1 | Parallel time v2 | Speedup | |
| 10000 | 22.039412 | 5.083667 | 6.103196 | 4.3353375 | 3.611126367 |
| 20000 | 32.100394 | 7.79739 | 9.519323 | 4.1168127 | 3.37212993 |
| 50000 | 82.197718 | 19.669215 | 23.879782 | 4.1790035 | 3.442146917 |
| 100000 | 207.70747 | 48.758314 | 60.137088 | 4.2599396 | 3.453899747 |

| For 10k pers. | | | For 50k pers. | | |
|---|---|---|---|---|---|
| Chunk size | Static Sch. | Dynamic Sch. | Chunk size | Static Sch. | Dynamic Sch. |
| 5 | 7.288 | 7.35 | 5 | 33.331 | 31.93 |
| 10 | 7.316 | 7.738 | 10 | 31.453 | 33.992 |
| 20 | 7.704 | 8.02 | 20 | 32.266 | 32.188 |
| 100 | 6.978 | 7.05 | 100 | 32.697 | 33.395 |


Cresterea timpului in functie de numarul de persoane
90
80
70
60
50
40
30
20
10
0
0
10000
20000
30000
40000
50000
60000
70000
80000
90000
100000
Serial
Parallel v1
Paralel v2


Cresterea timpului in functie de timpul de simulare
25
20
15
10
5
0
40
60
80
100
120
140
160
Serial
Parallel v1
Parallel v2

Din graficele de mai sus se poate observa o crestere usor liniara a timpului in functie de numarul de persoane procesate sau in functie de timpul de simulare a epidemiei. De asemenea timpii obtinuti dupa rularea algoritmilor paralelizati sunt considerabil mai buni (mici) decat dupa rularea algoritmului serial.

OBSERVATIE: in cele doua tabele in care se prezinta timpii de executie obtinuti in urma modificatilor parametriilor schedule si chunk size se poate observa ca se obtin timpi mai mari daca algoritmului i se ofera parametrul "dynamic", deoarece datele sunt impartite oarecum liniar adica executia programului nu difera intre thread-uri, timpul de solutionare a unui for fiind asemanator, task-urile durand aproximativ acelasi interval de timp.

Ca si concluzie a masuratorilor cel mai optim este un schedule static cu un chunk size de 100 pentru a imparti datele egal intre thread-uri.