Appendix I

Here we provide numerical results with respect to Figure 7 in Table 1, and results with respect to Figure 8 in Tables 2 and 3.

**Table 1.** Numerical comparison of CSVS-Net, RSVS-Net, MLVS-Net, and nSHS-Net for 3-24 hours of prediction horizons

| Prediction Horizon (hours) | 3  | 6  | 9  | 12 | 15 | 18 | 21 | 24 |
|----------------------------|----|----|----|----|----|----|----|----|
| **Accuracy**               |    |    |    |    |    |    |    |    |
| CSVS-Net                   | 0.9134 | 0.9098 | 0.9105 | 0.9061 | 0.9028 | 0.9035 | 0.9006 | 0.8975 |
| RSVS-Net                   | 0.8826 | 0.8806 | 0.8733 | 0.8741 | 0.8688 | 0.8689 | 0.8706 | 0.8667 |
| MLVS-Net                   | 0.8560 | 0.8530 | 0.8511 | 0.8456 | 0.8480 | 0.8472 | 0.8420 | 0.8516 |
| nSHS-Net                   | 0.8352 | 0.8354 | 0.8352 | 0.8352 | 0.8350 | 0.8350 | 0.8349 | 0.8350 |
| **AUROC**                  |    |    |    |    |    |    |    |    |
| CSVS-Net                   | 0.9336 | 0.9215 | 0.9102 | 0.8979 | 0.8966 | 0.8968 | 0.8844 | 0.8844 |
| RSVS-Net                   | 0.8754 | 0.8595 | 0.8481 | 0.8328 | 0.8322 | 0.8225 | 0.8205 | 0.8278 |
| MLVS-Net                   | 0.8034 | 0.7945 | 0.7879 | 0.7692 | 0.7609 | 0.7643 | 0.7511 | 0.7716 |
| nSHS-Net                   | 0.6811 | 0.6772 | 0.6750 | 0.6769 | 0.6787 | 0.6728 | 0.6766 | 0.6742 |
| **AUPRC**                  |    |    |    |    |    |    |    |    |
| CSVS-Net                   | 0.8056 | 0.7892 | 0.7757 | 0.7519 | 0.7434 | 0.7464 | 0.7282 | 0.7227 |
| RSVS-Net                   | 0.6565 | 0.6492 | 0.6091 | 0.5936 | 0.5908 | 0.5786 | 0.5783 | 0.5805 |
| MLVS-Net                   | 0.5016 | 0.4864 | 0.4677 | 0.4353 | 0.4413 | 0.4434 | 0.4257 | 0.4687 |
| nSHS-Net                   | 0.2776 | 0.2765 | 0.2750 | 0.2690 | 0.2746 | 0.2682 | 0.2713 | 0.2700 |
Table 2. Numerical comparison of all the occlusions on clinical and comorbidity characteristics and SEQ vital sign data for 3-24 hours of prediction horizons for RSVS-Net.

| Prediction Horizon (hours) | 3   | 6   | 9   | 12  | 15  | 18  | 21  | 24  |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| **Accuracy**               |     |     |     |     |     |     |     |     |
| None                       | 0.8826 | 0.8806 | 0.8733 | **0.8741** | 0.8688 | 0.8689 | 0.8706 | 0.8667 |
| Sex                        | 0.8793 | 0.8775 | 0.8709 | 0.8704 | 0.8660 | 0.8675 | 0.8697 | 0.8655 |
| Obesity                    | 0.8818 | 0.8805 | **0.8736** | 0.8732 | **0.8688** | 0.8685 | **0.8706** | 0.8657 |
| Age                        | 0.8725 | 0.8637 | 0.8660 | 0.8662 | 0.8592 | 0.8603 | 0.8589 | 0.8357 |
| Diabetes                   | **0.8829** | 0.8790 | 0.8697 | 0.8722 | 0.8678 | 0.8683 | 0.8701 | 0.8660 |
| Hypertension               | 0.8821 | 0.8795 | 0.8730 | 0.8730 | **0.8688** | 0.8693 | 0.8704 | **0.8675** |
| Vac. Time                  | 0.8824 | **0.8813** | 0.8733 | 0.8740 | 0.8683 | 0.8680 | 0.8699 | 0.8668 |
| Vac. Status                | 0.8806 | 0.8803 | 0.8727 | 0.8733 | 0.8673 | 0.8676 | **0.8706** | 0.8663 |
| HR                         | 0.8550 | 0.8534 | 0.8534 | 0.8564 | 0.8524 | 0.8501 | 0.8521 | 0.8526 |
| SpO2                       | 0.8689 | 0.8670 | 0.8659 | 0.8624 | 0.8602 | 0.8618 | 0.8560 | 0.8534 |
| Temperature                | 0.8798 | 0.8681 | 0.8650 | 0.8646 | 0.8621 | 0.8602 | 0.8628 | 0.8595 |
| **AUROC**                  |     |     |     |     |     |     |     |     |
| None                       | 0.8754 | **0.8595** | 0.8481 | **0.8328** | 0.8322 | **0.8225** | 0.8205 | 0.8278 |
| Sex                        | 0.8737 | 0.8554 | 0.8434 | 0.8275 | 0.8270 | 0.8160 | 0.8127 | 0.8214 |
| Obesity                    | 0.8774 | 0.8589 | **0.8482** | 0.8324 | 0.8321 | 0.8222 | 0.8209 | **0.8280** |
| Age                        | 0.8445 | 0.8125 | 0.8334 | 0.8094 | 0.7852 | 0.7660 | 0.7851 | 0.7597 |
| Diabetes                   | 0.8757 | 0.8572 | 0.8459 | 0.8276 | 0.8267 | 0.8117 | 0.8155 | 0.8200 |
| Hypertension               | 0.8767 | 0.8586 | 0.8468 | 0.8312 | 0.8303 | 0.8204 | 0.8191 | 0.8251 |
| Vac. Time                  | **0.8776** | 0.8588 | 0.8477 | 0.8316 | 0.8297 | 0.8198 | 0.8174 | 0.8265 |
| Vac. Status                | 0.8761 | 0.8572 | 0.8460 | 0.8296 | 0.8284 | 0.8202 | 0.8186 | 0.8240 |
| HR                         | 0.7475 | 0.7391 | 0.7359 | 0.7391 | 0.7439 | 0.7428 | 0.7328 | 0.7448 |
| SpO2                       | 0.8582 | 0.8334 | 0.8187 | 0.7918 | 0.7903 | 0.7847 | 0.7768 | 0.7713 |
| Temperature                | 0.8777 | 0.8521 | 0.8465 | 0.8235 | 0.8271 | 0.8142 | 0.8026 | 0.8193 |
| **AUPRC**                  |     |     |     |     |     |     |     |     |
| None                       | 0.6565 | **0.6492** | **0.6098** | **0.5936** | 0.5908 | **0.5786** | **0.5783** | **0.5805** |
| Sex                        | 0.6589 | 0.6421 | 0.6034 | 0.5876 | 0.5834 | 0.5708 | 0.5696 | 0.5718 |
| Obesity                    | 0.6647 | 0.6476 | 0.6091 | 0.5928 | **0.5916** | 0.5781 | 0.5781 | 0.5800 |
| Age                        | 0.6173 | 0.5566 | 0.5831 | 0.5604 | 0.5179 | 0.5047 | 0.5291 | 0.4799 |
| Diabetes                   | 0.6612 | 0.6453 | 0.6062 | 0.5895 | 0.5855 | 0.5648 | 0.5712 | 0.5710 |
| Hypertension               | 0.6637 | 0.6475 | 0.6088 | 0.5934 | 0.5906 | 0.5774 | 0.5778 | 0.5782 |
| Vac. Time                  | **0.6644** | 0.6467 | 0.6087 | 0.5917 | 0.5880 | 0.5749 | 0.5739 | 0.5778 |
| Vac. Status                | 0.6614 | 0.6428 | 0.6061 | 0.5885 | 0.5841 | 0.5741 | 0.5730 | 0.5750 |
| HR                         | 0.4565 | 0.4584 | 0.4355 | 0.4490 | 0.4404 | 0.4277 | 0.4312 | 0.4389 |
| SpO2                       | 0.6150 | 0.5880 | 0.5610 | 0.5328 | 0.5261 | 0.5235 | 0.4953 | 0.4853 |
| Temperature                | 0.6613 | 0.6145 | 0.5845 | 0.5600 | 0.5676 | 0.5515 | 0.5432 | 0.5527 |
Table 3. Numerical comparison of all the occlusions on clinical and comorbidity characteristics and SEQ vital sign data for 3-24 hours of prediction horizons for CSVS-Net

| Prediction Horizon (hours) | 3      | 6      | 9      | 12     | 15     | 18     | 21     | 24     |
|----------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| **Accuracy**               |        |        |        |        |        |        |        |        |
| None                       | 0.9134 | 0.9098 | 0.9055 | 0.9061 | 0.9028 | 0.9035 | 0.9006 | 0.8975 |
| Sex                        | 0.9124 | 0.9093 | 0.9092 | **0.9080** | **0.9032** | 0.9028 | 0.8999 | 0.8991 |
| Obesity                    | 0.9137 | **0.9108** | **0.9108** | 0.9062 | 0.9019 | **0.9035** | 0.9006 | 0.8965 |
| Age                        | 0.9032 | 0.9056 | 0.9020 | 0.8973 | 0.8985 | 0.8975 | 0.8962 | 0.8946 |
| Diabettes                  | 0.9127 | 0.9093 | 0.9082 | 0.9028 | 0.9019 | 0.9006 | 0.8988 | 0.8941 |
| Hypertension               | 0.9135 | 0.9100 | 0.9103 | 0.9054 | **0.9032** | **0.9035** | **0.9011** | 0.8980 |
| Vac. Time                  | **0.9145** | 0.9101 | 0.9103 | 0.9062 | 0.9025 | 0.9025 | 0.9009 | 0.8970 |
| Vac. Status                | 0.9134 | 0.9095 | 0.9103 | 0.9053 | 0.9015 | 0.9011 | 0.8996 | 0.8962 |
| HR                         | 0.8787 | 0.8754 | 0.8748 | 0.8774 | 0.8772 | 0.8736 | 0.8740 | 0.8725 |
| SpO2                       | 0.9007 | 0.8916 | 0.8954 | 0.8907 | 0.8853 | 0.8818 | 0.8801 | 0.8801 |
| Temperature                | 0.9119 | 0.9101 | 0.9093 | 0.9038 | 0.9015 | 0.9019 | 0.8975 | 0.8988 |
| **AUROC**                  |        |        |        |        |        |        |        |        |
| None                       | 0.9336 | **0.9215** | 0.9102 | 0.8979 | 0.8966 | 0.8968 | 0.8944 | 0.8844 |
| Sex                        | 0.9304 | 0.9186 | 0.9066 | 0.8950 | 0.8917 | 0.8938 | 0.8811 | 0.8812 |
| Obesity                    | 0.9328 | 0.9209 | 0.9097 | 0.8979 | 0.8958 | **0.8976** | **0.8846** | 0.8846 |
| Age                        | 0.9178 | 0.9101 | 0.8949 | 0.8825 | 0.8774 | 0.8712 | 0.8700 | 0.8596 |
| Diabettes                  | 0.9305 | 0.9212 | 0.9086 | 0.8937 | 0.8952 | 0.8905 | 0.8809 | 0.8830 |
| Hypertension               | 0.9326 | 0.9206 | 0.9096 | 0.8970 | 0.8948 | 0.8961 | 0.8827 | 0.8826 |
| Vac. Time                  | 0.9320 | 0.9195 | 0.9090 | 0.8966 | 0.8951 | 0.8957 | 0.8824 | 0.8814 |
| Vac. Status                | **0.9337** | **0.9215** | 0.9103 | **0.8982** | **0.8968** | 0.8954 | **0.8846** | **0.8852** |
| HR                         | 0.7759 | 0.7718 | 0.7743 | 0.7767 | 0.7730 | 0.7751 | 0.7695 | 0.7701 |
| SpO2                       | 0.9144 | 0.8966 | 0.8848 | 0.8663 | 0.8588 | 0.8558 | 0.8460 | 0.8464 |
| Temperature                | 0.9319 | 0.9196 | **0.9108** | 0.8965 | 0.8938 | 0.8920 | 0.8795 | 0.8791 |
| **AUPRC**                  |        |        |        |        |        |        |        |        |
| None                       | **0.8056** | **0.7892** | **0.7757** | 0.7519 | 0.7434 | 0.7464 | 0.7282 | 0.7227 |
| Sex                        | 0.8000 | 0.7845 | 0.7704 | 0.7466 | 0.7345 | 0.7380 | 0.7213 | 0.7163 |
| Obesity                    | 0.8042 | 0.7883 | 0.7746 | 0.7531 | 0.7425 | **0.7467** | 0.7273 | 0.7225 |
| Age                        | 0.7797 | 0.7608 | 0.7446 | 0.7255 | 0.7133 | 0.7014 | 0.6937 | 0.6842 |
| Diabettes                  | 0.8001 | 0.7878 | 0.7725 | 0.7449 | 0.7406 | 0.7337 | 0.7195 | 0.7163 |
| Hypertension               | 0.8043 | 0.7881 | 0.7751 | 0.7506 | 0.7416 | 0.7459 | 0.7262 | 0.7209 |
| Vac. Time                  | 0.8046 | 0.7864 | 0.7715 | 0.7504 | 0.7419 | 0.7454 | 0.7276 | 0.7209 |
| Vac. Status                | 0.8054 | 0.7885 | 0.7748 | **0.7526** | 0.7424 | 0.7410 | 0.7265 | 0.7224 |
| HR                         | 0.5666 | 0.5606 | 0.5648 | 0.5640 | 0.5587 | 0.5594 | 0.5498 | 0.5524 |
| SpO2                       | 0.7484 | 0.7140 | 0.7081 | 0.6808 | 0.6637 | 0.6522 | 0.6414 | 0.6417 |
| Temperature                | 0.8046 | 0.7841 | 0.7738 | 0.7443 | 0.7352 | 0.7382 | 0.7197 | 0.7173 |