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## Research article

## Using Bayesian network model with MMHC algorithm to detect risk

## factors for stroke

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**Supplementary** 

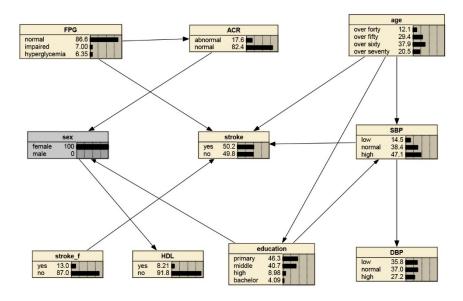


Figure S1: Bayesian reasoning for stroke for females.

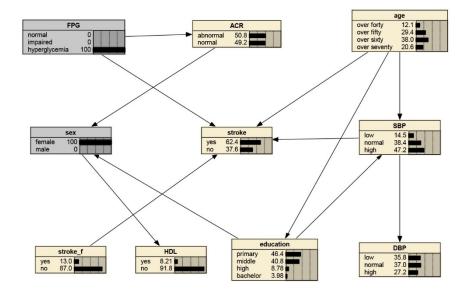
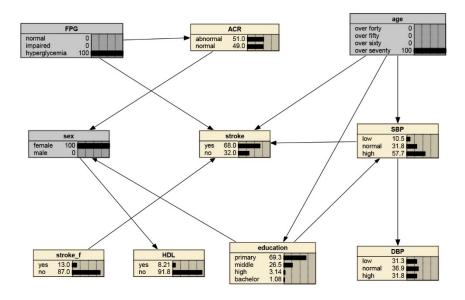
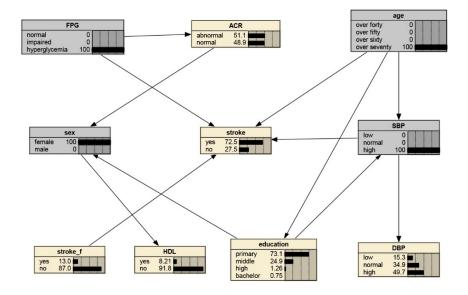


Figure S2: Bayesian reasoning for stroke for females under hyperglycemia condition.



**Figure S3:** Bayesian reasoning for stroke for females with age between 71–91 years and under hyperglycemia condition.



**Figure S4:** Bayesian reasoning for stroke for females with age between 71–91 years and under hyperglycemia and high SBP conditions.

| Variables           |           | Before PSM                 |                     |         | After PSM              |                     |      |
|---------------------|-----------|----------------------------|---------------------|---------|------------------------|---------------------|------|
|                     | levels    | non-stroke<br>(N = 11,537) | stroke<br>(N = 748) | Р       | non-stroke $(N = 748)$ | stroke<br>(N = 748) | Р    |
| smoking             | No        | 8836 (76.6%)               | 523 (69.9%)         | < 0.001 | 523 (69.9%)            | 523 (69.9%)         | 1.00 |
|                     | Yes       | 2701 (23.4%)               | 225 (30.1%)         |         | 225 (30.1%)            | 225 (30.1%)         |      |
| Alcohol consumption | Seldom    | 9762 (84.6%)               | 647 (86.5%)         | 0.367   | 647 (86.5%)            | 647 (86.5%)         | 1.00 |
|                     | Sometimes | 1530 (13.3%)               | 86 (11.5%)          |         | 86 (11.5%)             | 86 (11.5%)          |      |
|                     | Always    | 245 (2.1%)                 | 15 (2%)             |         | 15 (2%)                | 15 (2%)             |      |
| Diet                | Vegetable | 3815 (33.1%)               | 301 (40.2%)         | < 0.001 | 230 (30.7%)            | 230 (30.7%)         | 1.00 |
|                     | Balanced  | 7177 (62.2%)               | 425 (56.8%)         |         | 416 (55.6%)            | 416 (55.6%)         |      |
|                     | Meat      | 545 (4.7%)                 | 22 (2.9%)           |         | 102 (13.6%)            | 102 (13.6%)         |      |
| Salt consumption    | Light     | 3005 (26%)                 | 230 (30.7%)         | 0.010   | 301 (40.2%)            | 301 (40.2%)         | 1.00 |
|                     | Balanced  | 7021 (60.9%)               | 416 (55.6%)         |         | 425 (56.8%)            | 425 (56.8%)         |      |
|                     | Salty     | 1511 (13.1%)               | 102 (13.6%)         |         | 22 (2.9%)              | 22 (2.9%)           |      |

 Table S1. Comparison of variables before and after PSM.



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