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Supplement Table S1. Incidence of lower respiratory infections among children under 5 years in 2019 by provinces in China.

| Provinces | Incidence (95% UI) | Incidence per 100000 (95% UI) |
|----------------|--------------------------|-------------------------------|
| Anhui | 494(394~578) | 4282.0(3248.6~5497.2) |
| Beijing | 43(34~50) | 4093.7(3095.0~5300.8) |
| Chongqing | 339(245~381) | 4089.6(3096.6~5212.2) |
| Fujian | 363(312~441) | 4071.8(3120.4~5236.1) |
| Gansu | 330(268~391) | 4381.2(3326.8~5647.3) |
| Guangdong | 683(545~817) | 4217.7(3219.0~5400.9) |
| Guangxi | 635(537~765) | 4068.1(3085.5~5117.6) |
| Guizhou | 1018(888~1260) | 3793.1(2922.0~4766.2) |
| Hainan | 176(137~204) | 3998.6(3059.2~5109.3) |
| Hebei | 645(500~754) | 4047.0(3068.9~5190) |
| Heilongjiang | 193(160~232) | 4160.7(3179.7~5363.9) |
| Henan | 916(678~1027) | 4215.8(3176.1~5488.1) |
| Hong Kong | 7(4~8) | 4989.2(3683.1~6544.6) |
| Hubei | 578(470~680) | 4179.1(3197.2~5405.6) |
| Hunan | 516(422~609) | 4043.1(3026.9~5303.5) |
| Inner Mongolia | 178(139~205) | 4059.4(3095.6~5229.7) |
| Jiangsu | 241(186~278) | 4080.0(3053.5~5253.6) |
| Jiangxi | 761(659~931) | 3768.1(2878.0~4833.5) |
| Jilin | 76(61~90) | 4339.2(3275.2~5534.5) |
| Liaoning | 143(109~165) | 4112.8(3126.6~5318) |
| Macao | 2(1~2) | 4027.2(3018.0~5290) |
| Ningxia | 117(82~129) | 3703.1(2880.0~4727.4) |
| Qinghai | 251(208~298) | 4388.8(3420.5~5536.2) |
| Shaanxi | 349(262~399) | 3638.0(2754.9~4684) |
| Shandong | 644(499~744) | 4125.6(3102.5~5312.5) |
| Shanghai | 62(45~70) | 6168.6(4658.3~8003.5) |
| Shanxi | 321(247~368) | 4498.0(3373.2~5804.9) |
| Sichuan | 1208(1084~1520) | 3793.1(2943.8~4754.8) |
| Tianjin | 40(32~47) | 4143.5(3131.7~5372.5) |
| Taiwan | 37(32~45) | 8386.5(6350.2~10858.9) |
| Xinjiang | 1572(1419~1942) | 4814.5(3734.4~5943.5) |
| Xizang | 287(224~333) | 5505.0(4331.0~6749.3) |
| Yunnan | 1302(1067~1561) | 3997.1(3120.6~4967.3) |
| Zhejiang | 222(171~255) | 4038.9(3031.4~5278.2) |
| China | 3369103(2576496~4304427) | 4134.3(3161.7~5282.1) |

UI, Uncertainty interval.

Supplement Table S2. Joinpoint analysis of notification incidence per 100000 of lower respiratory infections among children under 5 years by age and provinces in China, 2000-2019.

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|----------------|-------|-----------------------------------|---|
| Early Neonatal | | | |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|---------------------|-----------|-----------------------------------|---------|
| Anhui | 2000~2005 | -7.0*(-7.3~-6.6) | < 0.001 |
| | 2005~2010 | -8.4*(-8.9~-7.9) | < 0.001 |
| | 2010~2017 | -5.8*(-6.1~-5.5) | < 0.001 |
| | 2017~2019 | -3.4*(-5~-1.7) | 0.001 |
| Beijing | 2000~2006 | -5.8*(-5.9~-5.7) | < 0.001 |
| | 2006~2010 | -7.2*(-7.5~-7) | < 0.001 |
| | 2010~2014 | -4.0*(-4.2~-3.7) | < 0.001 |
| | 2014~2019 | -2.8*(-3~-2.7) | < 0.001 |
| Chongqing | 2000~2006 | -7.6*(-7.9~-7.3) | < 0.001 |
| | 2006~2009 | -9.2*(-10.9~-7.5) | < 0.001 |
| | 2009~2017 | -5.3*(-5.5~-5.1) | < 0.001 |
| | 2017~2019 | -2.9*(-4.7~-1.1) | 0.006 |
| Fujian | 2000~2005 | -6.7*(-7~-6.4) | < 0.001 |
| | 2005~2010 | -8.5*(-8.9~-8.1) | < 0.001 |
| | 2010~2017 | -5.3*(-5.5~-5.1) | < 0.001 |
| | 2017~2019 | -2.8*(-4.2~-1.5) | 0.001 |
| Gansu | 2000~2005 | -7.2*(-7.5~-6.9) | < 0.001 |
| | 2005~2010 | -9.0*(-9.4~-8.5) | < 0.001 |
| | 2010~2017 | -6.1*(-6.4~-5.9) | < 0.001 |
| | 2017~2019 | -2.9*(-4.4~-1.3) | 0.002 |
| Guangdong | 2000~2005 | -6.0*(-6.4~-5.7) | < 0.001 |
| | 2005~2010 | -8.8*(-9.3~-8.3) | < 0.001 |
| | 2010~2017 | -5.6*(-5.9~-5.3) | < 0.001 |
| | 2017~2019 | -2.7*(-4.4~-1) | 0.007 |
| Guangxi | 2000~2006 | -8.3*(-8.7~-7.9) | < 0.001 |
| | 2006~2009 | -10.0*(-12.4~-7.5) | < 0.001 |
| | 2009~2017 | -6.0*(-6.4~-5.7) | < 0.001 |
| | 2017~2019 | -3.3*(-5.9~-0.6) | 0.022 |
| Guizhou | 2000~2005 | -7.1*(-7.8~-6.4) | < 0.001 |
| | 2005~2010 | -12.7*(-13.6~-11.8) | < 0.001 |
| | 2010~2017 | -8.9*(-9.4~-8.4) | < 0.001 |
| | 2017~2019 | -3.5*(-6.6~-0.2) | 0.039 |
| Hainan | 2000~2006 | -6.4*(-6.9~-5.9) | < 0.001 |
| | 2006~2009 | -9.3*(-12~-6.6) | < 0.001 |
| | 2009~2017 | -5.9*(-6.3~-5.5) | < 0.001 |
| | 2017~2019 | -3.4*(-6.2~-0.4) | 0.029 |
| Hebei | 2000~2006 | -6.3*(-6.5~-6) | < 0.001 |
| | 2006~2009 | -7.8*(-9.1~-6.6) | < 0.001 |
| | 2009~2017 | -5.5*(-5.6~-5.3) | < 0.001 |
| | 2017~2019 | -2.6*(-3.9~-1.3) | 0.002 |
| Heilongjiang | 2000~2006 | -5.6*(-5.8~-5.3) | < 0.001 |
| | 2006~2010 | -7.0*(-7.7~-6.2) | < 0.001 |
| | 2010~2014 | -3.3*(-4.1~-2.5) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------------|-----------|-----------------------------------|---------|
| Henan | 2014~2019 | -4.7*(-5~-4.3) | < 0.001 |
| | 2000~2005 | -5.3*(-6~-4.6) | < 0.001 |
| | 2005~2010 | -8.3*(-9.3~-7.3) | < 0.001 |
| | 2010~2019 | -5.3*(-5.6~-5) | < 0.001 |
| Hong Kong | 2000~2007 | -3.2*(-3.3~-3) | < 0.001 |
| | 2007~2010 | -4.1*(-5~-3.1) | < 0.001 |
| | 2010~2015 | -3.3*(-3.6~-3) | < 0.001 |
| | 2015~2019 | -2.0*(-2.3~-1.7) | < 0.001 |
| Hubei | 2000~2006 | -5.7*(-6~-5.3) | < 0.001 |
| | 2006~2009 | -9.0*(-10.9~-7) | < 0.001 |
| | 2009~2017 | -5.4*(-5.7~-5.2) | < 0.001 |
| | 2017~2019 | -3.2*(-5.3~-1.1) | 0.008 |
| Hunan | 2000~2004 | -8.7*(-9.4~-8) | < 0.001 |
| | 2004~2010 | -10.3*(-10.8~-9.9) | < 0.001 |
| | 2010~2017 | -5.8*(-6.2~-5.5) | < 0.001 |
| | 2017~2019 | -3.7*(-6~-1.4) | 0.006 |
| Inner Mongolia | 2000~2005 | -5.0*(-5.3~-4.7) | < 0.001 |
| | 2005~2010 | -7.3*(-7.7~-6.9) | < 0.001 |
| | 2010~2017 | -4.6*(-4.9~-4.4) | < 0.001 |
| | 2017~2019 | -2.7*(-4~-1.4) | 0.001 |
| Jiangsu | 2000~2006 | -7.3*(-7.4~-7.2) | < 0.001 |
| | 2006~2010 | -8.0*(-8.3~-7.6) | < 0.001 |
| | 2010~2016 | -4.6*(-4.8~-4.4) | < 0.001 |
| | 2016~2019 | -2.8*(-3.1~-2.4) | < 0.001 |
| Jiangxi | 2000~2005 | -7.7*(-8.1~-7.4) | < 0.001 |
| | 2005~2010 | -10.6*(-11~-10.1) | < 0.001 |
| | 2010~2017 | -6.7*(-6.9~-6.4) | < 0.001 |
| | 2017~2019 | -2.9*(-4.5~-1.3) | 0.003 |
| Jilin | 2000~2005 | -5.5*(-6~-4.9) | < 0.001 |
| | 2005~2010 | -6.9*(-7.7~-6.2) | < 0.001 |
| | 2010~2019 | -3.9*(-4.2~-3.7) | < 0.001 |
| | 2000~2006 | -5.1*(-5.2~-4.9) | < 0.001 |
| Liaoning | 2006~2010 | -7.2*(-7.6~-6.8) | < 0.001 |
| | 2010~2017 | -4.5*(-4.6~-4.3) | < 0.001 |
| | 2017~2019 | -2.4*(-3.2~-1.6) | < 0.001 |
| | 2000~2006 | -4.5*(-4.6~-4.4) | < 0.001 |
| Macao | 2006~2010 | -6.4*(-6.7~-6) | < 0.001 |
| | 2010~2015 | -4.6*(-4.8~-4.3) | < 0.001 |
| | 2015~2019 | -2.9*(-3.1~-2.6) | < 0.001 |
| | 2000~2005 | -7.6*(-8.1~-7.2) | < 0.001 |
| Ningxia | 2005~2010 | -10.0*(-10.6~-9.4) | < 0.001 |
| | 2010~2017 | -6.4*(-6.7~-6) | < 0.001 |
| | 2017~2019 | -2.4*(-4.5~-0.2) | 0.037 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------|-----------|-----------------------------------|---------|
| Qinghai | 2000~2011 | -6.6*(-7~-6.3) | < 0.001 |
| | 2011~2014 | -4.6(-10.3~1.4) | 0.114 |
| | 2014~2017 | -10.1*(-15.4~-4.4) | 0.004 |
| | 2017~2019 | -2.9(-8.7~3.2) | 0.301 |
| Shaanxi | 2000~2005 | -8.0*(-8.2~-7.8) | < 0.001 |
| | 2005~2010 | -10.0*(-10.3~-9.7) | < 0.001 |
| | 2010~2017 | -6.4*(-6.6~-6.3) | < 0.001 |
| | 2017~2019 | -2.5*(-3.5~-1.6) | < 0.001 |
| Shandong | 2000~2006 | -6.6*(-6.7~-6.5) | < 0.001 |
| | 2006~2010 | -7.5*(-7.8~-7.2) | < 0.001 |
| | 2010~2017 | -4.2*(-4.3~-4.1) | < 0.001 |
| | 2017~2019 | -2.6*(-3.2~-1.9) | < 0.001 |
| Shanghai | 2000~2006 | -4.1*(-4.3~-4) | < 0.001 |
| | 2006~2010 | -5.8*(-6.3~-5.2) | < 0.001 |
| | 2010~2013 | -3.6*(-4.7~-2.4) | < 0.001 |
| | 2013~2019 | -2.4*(-2.6~-2.2) | < 0.001 |
| Shanxi | 2000~2005 | -6.6*(-7~-6.3) | < 0.001 |
| | 2005~2010 | -7.9*(-8.3~-7.4) | < 0.001 |
| | 2010~2017 | -5.0*(-5.3~-4.8) | < 0.001 |
| | 2017~2019 | -2.8*(-4.3~-1.1) | 0.004 |
| Sichuan | 2000~2006 | -7.6*(-8.5~-6.6) | < 0.001 |
| | 2006~2009 | -10.3*(-15.8~-4.5) | 0.003 |
| | 2009~2019 | -6.7*(-7.1~-6.2) | < 0.001 |
| Tianjin | 2000~2005 | -5.5*(-5.6~-5.4) | < 0.001 |
| | 2005~2010 | -6.8*(-7~-6.6) | < 0.001 |
| | 2010~2017 | -3.7*(-3.8~-3.6) | < 0.001 |
| | 2017~2019 | -2.4*(-3~-1.8) | < 0.001 |
| Taiwan | 2000~2005 | -0.8*(-1~-0.6) | < 0.001 |
| | 2005~2010 | -3.5*(-3.7~-3.2) | < 0.001 |
| | 2010~2017 | 1.6*(1.5~1.7) | < 0.001 |
| | 2017~2019 | -1.8*(-2.6~-1.1) | < 0.001 |
| Xinjiang | 2000~2014 | -5.0*(-5.4~-4.5) | < 0.001 |
| | 2014~2019 | -7.9*(-9.9~-6) | < 0.001 |
| Xizang | 2000~2011 | -7.7*(-8.1~-7.4) | < 0.001 |
| | 2011~2014 | -3.4(-8.6~2) | 0.181 |
| | 2014~2017 | -9.5*(-14.4~-4.4) | 0.003 |
| | 2017~2019 | -2.9(-8.1~2.5) | 0.253 |
| Yunnan | 2000~2005 | -7.3*(-8~-6.7) | < 0.001 |
| | 2005~2010 | -10.8*(-11.7~-9.9) | < 0.001 |
| | 2010~2017 | -6.8*(-7.3~-6.3) | < 0.001 |
| | 2017~2019 | -4.1*(-7.2~-1) | 0.017 |
| Zhejiang | 2000~2006 | -7.2*(-7.3~-7.1) | < 0.001 |
| | 2006~2010 | -8.4*(-8.7~-8.1) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|----------------------|-----------|-----------------------------------|---------|
| | 2010~2017 | -4.2*(-4.3~-4.1) | < 0.001 |
| | 2017~2019 | -2.2*(-2.8~-1.5) | < 0.001 |
| Late Neonatal | | | |
| Anhui | 2000~2005 | -6.8*(-7.2~-6.5) | < 0.001 |
| | 2005~2010 | -8.4*(-8.9~-8) | < 0.001 |
| | 2010~2017 | -5.7*(-6~-5.5) | < 0.001 |
| | 2017~2019 | -3.3*(-4.8~-1.8) | 0.001 |
| Beijing | 2000~2006 | -5.8*(-5.8~-5.7) | < 0.001 |
| | 2006~2010 | -7.2*(-7.4~-6.9) | < 0.001 |
| | 2010~2014 | -3.9*(-4.2~-3.7) | < 0.001 |
| | 2014~2019 | -2.8*(-2.9~-2.7) | < 0.001 |
| Chongqing | 2000~2006 | -7.5*(-7.8~-7.2) | < 0.001 |
| | 2006~2009 | -9.2*(-10.8~-7.7) | < 0.001 |
| | 2009~2017 | -5.3*(-5.5~-5) | < 0.001 |
| | 2017~2019 | -2.9*(-4.5~-1.2) | 0.004 |
| Fujian | 2000~2005 | -6.7*(-6.9~-6.4) | < 0.001 |
| | 2005~2010 | -8.4*(-8.8~-8.1) | < 0.001 |
| | 2010~2017 | -5.3*(-5.5~-5.1) | < 0.001 |
| | 2017~2019 | -2.8*(-4~-1.5) | 0.001 |
| Gansu | 2000~2005 | -7.1*(-7.4~-6.8) | < 0.001 |
| | 2005~2010 | -8.9*(-9.3~-8.5) | < 0.001 |
| | 2010~2017 | -6.0*(-6.2~-5.8) | < 0.001 |
| | 2017~2019 | -2.8*(-4.1~-1.4) | 0.001 |
| Guangdong | 2000~2005 | -6.0*(-6.3~-5.6) | < 0.001 |
| | 2005~2010 | -8.8*(-9.2~-8.3) | < 0.001 |
| | 2010~2017 | -5.6*(-5.9~-5.3) | < 0.001 |
| | 2017~2019 | -2.7*(-4.3~-1) | 0.006 |
| Guangxi | 2000~2006 | -8.2*(-8.6~-7.8) | < 0.001 |
| | 2006~2009 | -9.9*(-12.3~-7.5) | < 0.001 |
| | 2009~2017 | -6.1*(-6.4~-5.7) | < 0.001 |
| | 2017~2019 | -3.3*(-5.8~-0.7) | 0.019 |
| Guizhou | 2000~2005 | -7.1*(-7.8~-6.4) | < 0.001 |
| | 2005~2010 | -12.6*(-13.5~-11.7) | < 0.001 |
| | 2010~2017 | -8.9*(-9.4~-8.4) | < 0.001 |
| | 2017~2019 | -3.5*(-6.6~-0.3) | 0.037 |
| Hainan | 2000~2006 | -6.3*(-6.8~-5.9) | < 0.001 |
| | 2006~2009 | -9.3*(-11.9~-6.7) | < 0.001 |
| | 2009~2017 | -5.9*(-6.2~-5.5) | < 0.001 |
| | 2017~2019 | -3.3*(-6.1~-0.5) | 0.026 |
| Hebei | 2000~2006 | -6.2*(-6.4~-6) | < 0.001 |
| | 2006~2010 | -7.3*(-7.9~-6.7) | < 0.001 |
| | 2010~2017 | -5.3*(-5.5~-5.1) | < 0.001 |
| | 2017~2019 | -2.7*(-3.9~-1.5) | 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------------|-----------|-----------------------------------|---------|
| Heilongjiang | 2000~2006 | -5.5*(-5.7~-5.3) | < 0.001 |
| | 2006~2010 | -6.9*(-7.6~-6.2) | < 0.001 |
| | 2010~2014 | -3.3*(-4~-2.6) | < 0.001 |
| | 2014~2019 | -4.6*(-5~-4.3) | < 0.001 |
| Henan | 2000~2005 | -5.2*(-5.9~-4.5) | < 0.001 |
| | 2005~2010 | -8.3*(-9.2~-7.3) | < 0.001 |
| | 2010~2019 | -5.2*(-5.5~-4.9) | < 0.001 |
| Hong Kong | 2000~2007 | -3.1*(-3.2~-3) | < 0.001 |
| | 2007~2010 | -4.0*(-4.9~-3.1) | < 0.001 |
| | 2010~2015 | -3.2*(-3.5~-2.9) | < 0.001 |
| | 2015~2019 | -2.0*(-2.3~-1.7) | < 0.001 |
| Hubei | 2000~2006 | -5.5*(-5.9~-5.2) | < 0.001 |
| | 2006~2009 | -9.0*(-10.8~-7.1) | < 0.001 |
| | 2009~2017 | -5.4*(-5.7~-5.1) | < 0.001 |
| | 2017~2019 | -3.1*(-5~-1.1) | 0.006 |
| Hunan | 2000~2005 | -8.9*(-9.3~-8.5) | < 0.001 |
| | 2005~2010 | -10.4*(-11~-9.8) | < 0.001 |
| | 2010~2017 | -5.7*(-6.1~-5.4) | < 0.001 |
| | 2017~2019 | -3.7*(-5.7~-1.6) | 0.003 |
| Inner Mongolia | 2000~2005 | -4.9*(-5.2~-4.6) | < 0.001 |
| | 2005~2010 | -7.3*(-7.6~-6.9) | < 0.001 |
| | 2010~2017 | -4.6*(-4.8~-4.4) | < 0.001 |
| | 2017~2019 | -2.6*(-3.9~-1.4) | 0.001 |
| Jiangsu | 2000~2006 | -7.2*(-7.4~-7.1) | < 0.001 |
| | 2006~2010 | -8.0*(-8.3~-7.6) | < 0.001 |
| | 2010~2016 | -4.6*(-4.7~-4.4) | < 0.001 |
| | 2016~2019 | -2.7*(-3.1~-2.3) | < 0.001 |
| Jiangxi | 2000~2005 | -7.6*(-8~-7.3) | < 0.001 |
| | 2005~2010 | -10.5*(-10.9~-10.1) | < 0.001 |
| | 2010~2017 | -6.6*(-6.9~-6.4) | < 0.001 |
| | 2017~2019 | -2.9*(-4.3~-1.3) | 0.002 |
| Jilin | 2000~2005 | -5.4*(-5.9~-4.9) | < 0.001 |
| | 2005~2010 | -6.9*(-7.6~-6.2) | < 0.001 |
| | 2010~2019 | -3.9*(-4.1~-3.7) | < 0.001 |
| Liaoning | 2000~2006 | -5.0*(-5.1~-4.9) | < 0.001 |
| | 2006~2010 | -7.1*(-7.5~-6.8) | < 0.001 |
| | 2010~2017 | -4.4*(-4.6~-4.3) | < 0.001 |
| | 2017~2019 | -2.4*(-3.1~-1.6) | < 0.001 |
| Macao | 2000~2006 | -4.5*(-4.6~-4.3) | < 0.001 |
| | 2006~2010 | -6.3*(-6.7~-5.9) | < 0.001 |
| | 2010~2015 | -4.5*(-4.8~-4.3) | < 0.001 |
| | 2015~2019 | -2.9*(-3.1~-2.6) | < 0.001 |
| Ningxia | 2000~2005 | -7.6*(-8~-7.1) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------|-----------|-----------------------------------|---------|
| Qinghai | 2005~2010 | -10.0*(-10.6~-9.4) | < 0.001 |
| | 2010~2017 | -6.4*(-6.7~-6.1) | < 0.001 |
| | 2017~2019 | -2.3*(-4.3~-0.2) | 0.033 |
| | 2000~2011 | -6.6*(-7~-6.2) | < 0.001 |
| | 2011~2014 | -4.7(-10.5~1.5) | 0.118 |
| | 2014~2017 | -10.0*(-15.4~-4.1) | 0.004 |
| Shaanxi | 2017~2019 | -2.9(-8.8~3.3) | 0.31 |
| | 2000~2005 | -7.9*(-8.1~-7.7) | < 0.001 |
| | 2005~2010 | -10.0*(-10.3~-9.8) | < 0.001 |
| | 2010~2017 | -6.4*(-6.6~-6.3) | < 0.001 |
| Shandong | 2017~2019 | -2.4*(-3.3~-1.6) | < 0.001 |
| | 2000~2006 | -6.5*(-6.6~-6.4) | < 0.001 |
| | 2006~2010 | -7.5*(-7.8~-7.2) | < 0.001 |
| | 2010~2017 | -4.1*(-4.2~-4) | < 0.001 |
| | 2017~2019 | -2.5*(-3.1~-1.9) | < 0.001 |
| Shanghai | 2000~2006 | -4.1*(-4.3~-3.9) | < 0.001 |
| | 2006~2010 | -5.7*(-6.3~-5.1) | < 0.001 |
| | 2010~2013 | -3.5*(-4.8~-2.2) | < 0.001 |
| | 2013~2019 | -2.3*(-2.5~-2.1) | < 0.001 |
| Shanxi | 2000~2005 | -6.5*(-6.8~-6.2) | < 0.001 |
| | 2005~2010 | -7.8*(-8.2~-7.3) | < 0.001 |
| | 2010~2017 | -5.0*(-5.2~-4.7) | < 0.001 |
| | 2017~2019 | -2.7*(-4.2~-1.2) | 0.003 |
| Sichuan | 2000~2006 | -7.5*(-8.5~-6.5) | < 0.001 |
| | 2006~2009 | -10.3*(-15.7~-4.6) | 0.002 |
| | 2009~2019 | -6.7*(-7.1~-6.2) | < 0.001 |
| Tianjin | 2000~2005 | -5.4*(-5.6~-5.3) | < 0.001 |
| | 2005~2010 | -6.8*(-6.9~-6.6) | < 0.001 |
| | 2010~2017 | -3.7*(-3.7~-3.6) | < 0.001 |
| | 2017~2019 | -2.3*(-2.9~-1.8) | < 0.001 |
| Taiwan | 2000~2005 | -0.8*(-1~-0.7) | < 0.001 |
| | 2005~2010 | -3.6*(-3.8~-3.4) | < 0.001 |
| | 2010~2017 | 1.7*(1.5~1.8) | < 0.001 |
| | 2017~2019 | -1.8*(-2.6~-1.1) | < 0.001 |
| Xinjiang | 2000~2014 | -5.0*(-5.4~-4.6) | < 0.001 |
| | 2014~2019 | -7.8*(-9.7~-5.9) | < 0.001 |
| Xizang | 2000~2011 | -7.7*(-8~-7.3) | < 0.001 |
| | 2011~2014 | -3.5(-8.6~1.9) | 0.174 |
| | 2014~2017 | -9.4*(-14.2~-4.3) | 0.003 |
| | 2017~2019 | -2.9(-8.1~2.5) | 0.251 |
| Yunnan | 2000~2005 | -7.3*(-8~-6.6) | < 0.001 |
| | 2005~2010 | -10.7*(-11.6~-9.8) | < 0.001 |
| | 2010~2017 | -6.8*(-7.3~-6.3) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|----------------------|-----------|-----------------------------------|---------|
| Zhejiang | 2017~2019 | -4.1*(-7.1~-1) | 0.016 |
| | 2000~2006 | -7.1*(-7.2~-7) | < 0.001 |
| | 2006~2010 | -8.4*(-8.8~-8.1) | < 0.001 |
| | 2010~2017 | -4.2*(-4.3~-4) | < 0.001 |
| | 2017~2019 | -2.1*(-2.8~-1.4) | < 0.001 |
| Post Neonatal | | | |
| Anhui | 2000~2005 | -5.6*(-5.8~-5.5) | < 0.001 |
| | 2005~2010 | -7.5*(-7.8~-7.3) | < 0.001 |
| | 2010~2015 | -4.6*(-4.9~-4.4) | < 0.001 |
| | 2015~2019 | -3.0*(-3.2~-2.7) | < 0.001 |
| Beijing | 2000~2005 | -4.7*(-4.9~-4.5) | < 0.001 |
| | 2005~2010 | -6.0*(-6.2~-5.7) | < 0.001 |
| | 2010~2014 | -3.5*(-3.8~-3.1) | < 0.001 |
| | 2014~2019 | -1.8*(-2~-1.7) | < 0.001 |
| Chongqing | 2000~2005 | -6.6*(-6.8~-6.5) | < 0.001 |
| | 2005~2010 | -7.6*(-7.8~-7.4) | < 0.001 |
| | 2010~2015 | -4.0*(-4.2~-3.8) | < 0.001 |
| | 2015~2019 | -2.7*(-2.9~-2.5) | < 0.001 |
| Fujian | 2000~2005 | -6.0*(-6.1~-5.8) | < 0.001 |
| | 2005~2010 | -7.6*(-7.8~-7.4) | < 0.001 |
| | 2010~2016 | -4.4*(-4.5~-4.3) | < 0.001 |
| | 2016~2019 | -2.5*(-2.9~-2.2) | < 0.001 |
| Gansu | 2000~2005 | -6.3*(-6.4~-6.2) | < 0.001 |
| | 2005~2010 | -7.5*(-7.7~-7.3) | < 0.001 |
| | 2010~2014 | -4.5*(-4.8~-4.2) | < 0.001 |
| | 2014~2019 | -2.7*(-2.9~-2.5) | < 0.001 |
| Guangdong | 2000~2005 | -5.2*(-5.3~-5) | < 0.001 |
| | 2005~2010 | -7.4*(-7.6~-7.3) | < 0.001 |
| | 2010~2017 | -5.5*(-5.6~-5.4) | < 0.001 |
| | 2017~2019 | -1.9*(-2.5~-1.4) | < 0.001 |
| Guangxi | 2000~2010 | -8.0*(-8.1~-7.9) | < 0.001 |
| | 2010~2017 | -5.4*(-5.7~-5.1) | < 0.001 |
| | 2017~2019 | -2.8*(-4.5~-1.2) | 0.003 |
| Guizhou | 2000~2005 | -7.7*(-8.2~-7.2) | < 0.001 |
| | 2005~2010 | -12.0*(-12.6~-11.3) | < 0.001 |
| | 2010~2017 | -7.9*(-8.3~-7.6) | < 0.001 |
| | 2017~2019 | -3.0*(-5.2~-0.8) | 0.015 |
| Hainan | 2000~2005 | -5.7*(-6~-5.5) | < 0.001 |
| | 2005~2010 | -7.3*(-7.7~-7) | < 0.001 |
| | 2010~2017 | -4.8*(-5~-4.6) | < 0.001 |
| | 2017~2019 | -2.7*(-3.7~-1.6) | < 0.001 |
| Hebei | 2000~2006 | -5.5*(-5.6~-5.3) | < 0.001 |
| | 2006~2010 | -6.4*(-6.8~-6.1) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------------|-----------|-----------------------------------|---------|
| Heilongjiang | 2010~2015 | -4.8*(-5.1~-4.6) | < 0.001 |
| | 2015~2019 | -2.8*(-3~-2.5) | < 0.001 |
| | 2000~2006 | -4.9*(-5~-4.8) | < 0.001 |
| | 2006~2010 | -5.8*(-6.1~-5.5) | < 0.001 |
| | 2010~2016 | -2.9*(-3.1~-2.8) | < 0.001 |
| Henan | 2016~2019 | -3.8*(-4.1~-3.4) | < 0.001 |
| | 2000~2005 | -4.5*(-4.8~-4.2) | < 0.001 |
| | 2005~2010 | -7.7*(-8.1~-7.4) | < 0.001 |
| | 2010~2014 | -4.4*(-5~-3.8) | < 0.001 |
| Hong Kong | 2014~2019 | -3.2*(-3.5~-3) | < 0.001 |
| | 2000~2014 | -2.8*(-2.8~-2.7) | < 0.001 |
| | 2014~2019 | -1.6*(-1.8~-1.3) | < 0.001 |
| Hubei | 2000~2006 | -4.7*(-4.9~-4.6) | < 0.001 |
| | 2006~2010 | -7.5*(-8~-7) | < 0.001 |
| | 2010~2016 | -4.1*(-4.3~-3.8) | < 0.001 |
| Hunan | 2016~2019 | -2.4*(-2.9~-1.9) | < 0.001 |
| | 2000~2005 | -7.8*(-7.9~-7.6) | < 0.001 |
| | 2005~2010 | -9.1*(-9.4~-8.9) | < 0.001 |
| | 2010~2016 | -4.3*(-4.5~-4.1) | < 0.001 |
| | 2016~2019 | -2.9*(-3.3~-2.5) | < 0.001 |
| Inner Mongolia | 2000~2005 | -4.3*(-4.6~-4.1) | < 0.001 |
| | 2005~2010 | -6.5*(-6.8~-6.2) | < 0.001 |
| | 2010~2015 | -4.1*(-4.4~-3.8) | < 0.001 |
| | 2015~2019 | -2.4*(-2.7~-2.1) | < 0.001 |
| Jiangsu | 2000~2005 | -6.0*(-6.1~-5.9) | < 0.001 |
| | 2005~2010 | -6.7*(-6.9~-6.6) | < 0.001 |
| | 2010~2014 | -4.2*(-4.4~-3.9) | < 0.001 |
| Jiangxi | 2014~2019 | -2.2*(-2.3~-2.1) | < 0.001 |
| | 2000~2005 | -7.3*(-7.6~-7.1) | < 0.001 |
| | 2005~2010 | -9.5*(-9.8~-9.3) | < 0.001 |
| | 2010~2016 | -5.7*(-5.9~-5.5) | < 0.001 |
| Jilin | 2016~2019 | -2.7*(-3.2~-2.2) | < 0.001 |
| | 2000~2005 | -4.8*(-4.9~-4.7) | < 0.001 |
| | 2005~2010 | -6.1*(-6.2~-5.9) | < 0.001 |
| | 2010~2014 | -3.5*(-3.7~-3.2) | < 0.001 |
| Liaoning | 2014~2019 | -2.7*(-2.8~-2.6) | < 0.001 |
| | 2000~2006 | -4.3*(-4.4~-4.2) | < 0.001 |
| | 2006~2010 | -5.9*(-6.2~-5.6) | < 0.001 |
| | 2010~2015 | -3.7*(-3.9~-3.5) | < 0.001 |
| Macao | 2015~2019 | -2.3*(-2.5~-2.1) | < 0.001 |
| | 2000~2006 | -3.9*(-3.9~-3.8) | < 0.001 |
| | 2006~2010 | -5.5*(-5.7~-5.2) | < 0.001 |
| | 2010~2015 | -3.8*(-4~-3.7) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------|-----------|-----------------------------------|---------|
| Ningxia | 2015~2019 | -2.2*(-2.3~-2) | < 0.001 |
| | 2000~2005 | -7.4*(-7.5~-7.2) | < 0.001 |
| | 2005~2010 | -9.0*(-9.2~-8.7) | < 0.001 |
| | 2010~2016 | -5.6*(-5.8~-5.4) | < 0.001 |
| Qinghai | 2016~2019 | -2.3*(-2.7~-1.9) | < 0.001 |
| | 2000~2011 | -6.6*(-6.8~-6.3) | < 0.001 |
| | 2011~2014 | -4.4*(-8.6~-0.1) | 0.046 |
| | 2014~2017 | -8.1*(-12~-3.9) | 0.002 |
| Shaanxi | 2017~2019 | -2.6(-6.8~1.8) | 0.208 |
| | 2000~2006 | -7.3*(-7.5~-7.2) | < 0.001 |
| | 2006~2010 | -9.4*(-9.9~-8.9) | < 0.001 |
| | 2010~2015 | -6.2*(-6.5~-5.9) | < 0.001 |
| Shandong | 2015~2019 | -2.8*(-3.1~-2.4) | < 0.001 |
| | 2000~2006 | -5.6*(-5.7~-5.5) | < 0.001 |
| | 2006~2009 | -7.0*(-7.7~-6.2) | < 0.001 |
| | 2009~2013 | -4.1*(-4.5~-3.8) | < 0.001 |
| Shanghai | 2013~2019 | -2.2*(-2.4~-2.1) | < 0.001 |
| | 2000~2005 | -3.3*(-4~-2.6) | < 0.001 |
| | 2005~2012 | -4.3*(-4.8~-3.7) | < 0.001 |
| | 2012~2019 | -1.2*(-1.6~-0.8) | < 0.001 |
| Shanxi | 2000~2005 | -5.3*(-5.4~-5.2) | < 0.001 |
| | 2005~2010 | -6.4*(-6.6~-6.2) | < 0.001 |
| | 2010~2016 | -3.6*(-3.7~-3.4) | < 0.001 |
| | 2016~2019 | -2.1*(-2.4~-1.8) | < 0.001 |
| Sichuan | 2000~2006 | -7.4*(-7.7~-7.1) | < 0.001 |
| | 2006~2009 | -8.9*(-10.8~-6.9) | < 0.001 |
| | 2009~2017 | -6.2*(-6.5~-5.9) | < 0.001 |
| | 2017~2019 | -3.6*(-5.6~-1.5) | 0.004 |
| Tianjin | 2000~2005 | -4.7*(-4.8~-4.6) | < 0.001 |
| | 2005~2010 | -6.0*(-6.1~-5.8) | < 0.001 |
| | 2010~2014 | -3.6*(-3.8~-3.4) | < 0.001 |
| | 2014~2019 | -2.3*(-2.4~-2.2) | < 0.001 |
| Taiwan | 2000~2005 | -1.2*(-1.4~-1) | < 0.001 |
| | 2005~2010 | -4.9*(-5.2~-4.7) | < 0.001 |
| | 2010~2017 | 2.4*(2.2~2.5) | < 0.001 |
| | 2017~2019 | -1.7*(-2.6~-0.9) | 0.001 |
| Xinjiang | 2000~2019 | -5.4*(-5.6~-5.2) | < 0.001 |
| Xizang | 2000~2010 | -7.3*(-7.5~-7.1) | < 0.001 |
| | 2010~2014 | -4.1*(-5.5~-2.7) | < 0.001 |
| | 2014~2017 | -7.0*(-9.7~-4.2) | < 0.001 |
| | 2017~2019 | -2.6(-5.4~0.3) | 0.076 |
| Yunnan | 2000~2005 | -7.9*(-8.4~-7.4) | < 0.001 |
| | 2005~2010 | -10.1*(-10.8~-9.4) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|------------------|-----------|-----------------------------------|---------|
| Zhejiang | 2010~2017 | -6.3*(-6.7~-5.9) | < 0.001 |
| | 2017~2019 | -3.6*(-6~-1.2) | 0.009 |
| | 2000~2005 | -6.1*(-6.2~-6) | < 0.001 |
| | 2005~2010 | -7.4*(-7.5~-7.3) | < 0.001 |
| | 2010~2014 | -4.0*(-4.2~-3.8) | < 0.001 |
| | 2014~2019 | -2.1*(-2.2~-2) | < 0.001 |
| 1 to 4 | | | |
| Anhui | 2000~2005 | -3.5*(-4.7~-2.2) | < 0.001 |
| | 2005~2010 | -6.1*(-7.8~-4.4) | < 0.001 |
| | 2010~2014 | -2.2(-4.9~0.7) | 0.122 |
| | 2014~2019 | 1.3(0~2.6) | 0.057 |
| Beijing | 2000~2005 | -3.3*(-4.2~-2.4) | < 0.001 |
| | 2005~2010 | -5.4*(-6.6~-4.1) | < 0.001 |
| | 2010~2014 | -1.9(-3.9~0.2) | 0.071 |
| | 2014~2019 | 0.7(-0.2~1.7) | 0.101 |
| Chongqing | 2000~2005 | -5.0*(-6.1~-3.9) | < 0.001 |
| | 2005~2010 | -6.7*(-8.3~-5.2) | < 0.001 |
| | 2010~2014 | -2.2(-4.8~0.4) | 0.089 |
| | 2014~2019 | 1.1(-0.1~2.3) | 0.066 |
| Fujian | 2000~2005 | -4.9*(-5.8~-4) | < 0.001 |
| | 2005~2010 | -7.1*(-8.3~-5.9) | < 0.001 |
| | 2010~2014 | -2.7*(-4.6~-0.7) | 0.014 |
| | 2014~2019 | 0.5(-0.4~1.5) | 0.207 |
| Gansu | 2000~2010 | -5.5*(-5.8~-5.1) | < 0.001 |
| | 2010~2014 | -2(-4.1~0.2) | 0.071 |
| | 2014~2017 | 3.3(-1.1~7.9) | 0.128 |
| | 2017~2019 | -1.1(-5.3~3.4) | 0.593 |
| Guangdong | 2000~2005 | -3.8*(-4.2~-3.4) | < 0.001 |
| | 2005~2011 | -6.1*(-6.5~-5.7) | < 0.001 |
| | 2011~2014 | -4.6*(-6.5~-2.6) | 0.001 |
| | 2014~2019 | -0.7*(-1.2~-0.3) | 0.005 |
| Guangxi | 2000~2002 | -5.7*(-6.8~-4.7) | < 0.001 |
| | 2002~2010 | -6.6*(-6.7~-6.5) | < 0.001 |
| | 2010~2014 | -4.2*(-4.7~-3.6) | < 0.001 |
| | 2014~2019 | -1.6*(-1.8~-1.3) | < 0.001 |
| Guizhou | 2000~2002 | -6.8*(-8.1~-5.5) | < 0.001 |
| | 2002~2010 | -8.1*(-8.3~-7.9) | < 0.001 |
| | 2010~2017 | -4.9*(-5.1~-4.6) | < 0.001 |
| | 2017~2019 | -2.8*(-4.1~-1.4) | 0.001 |
| Hainan | 2000~2005 | -4.8*(-5.1~-4.4) | < 0.001 |
| | 2005~2010 | -6.1*(-6.6~-5.6) | < 0.001 |
| | 2010~2014 | -3.8*(-4.5~-3) | < 0.001 |
| | 2014~2019 | -1.0*(-1.4~-0.7) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------------|-----------|-----------------------------------|---------|
| Hebei | 2000~2005 | -4.2*(-4.9~-3.4) | < 0.001 |
| | 2005~2010 | -6.0*(-7.1~-4.9) | < 0.001 |
| | 2010~2014 | -3.5*(-5.3~-1.8) | 0.002 |
| | 2014~2019 | 0.5(-0.3~1.3) | 0.228 |
| Heilongjiang | 2000~2010 | -4.6*(-4.8~-4.4) | < 0.001 |
| | 2010~2014 | -2.2*(-3.7~-0.8) | 0.007 |
| | 2014~2017 | 1.5(-1.5~4.6) | 0.285 |
| | 2017~2019 | -2.9(-5.7~0.1) | 0.055 |
| Henan | 2000~2005 | -3.6*(-4.9~-2.4) | < 0.001 |
| | 2005~2010 | -7.3*(-9~-5.6) | < 0.001 |
| | 2010~2014 | -1.9(-4.7~0.9) | 0.16 |
| | 2014~2019 | 1.2(-0.1~2.6) | 0.062 |
| Hong Kong | 2000~2005 | -1.7*(-2.4~-0.9) | 0.001 |
| | 2005~2010 | -3.2*(-4.2~-2.1) | < 0.001 |
| | 2010~2014 | -0.9(-2.6~0.7) | 0.24 |
| | 2014~2019 | 0.8*(0~1.6) | 0.041 |
| Hubei | 2000~2005 | -3.4*(-4.5~-2.3) | < 0.001 |
| | 2005~2010 | -5.8*(-7.4~-4.3) | < 0.001 |
| | 2010~2014 | -2.3(-4.8~0.3) | 0.078 |
| | 2014~2019 | 1.3*(0.1~2.5) | 0.034 |
| Hunan | 2000~2010 | -5.9*(-6.2~-5.6) | < 0.001 |
| | 2010~2014 | -2.5*(-4.6~-0.3) | 0.033 |
| | 2014~2017 | 3.1(-1.4~7.9) | 0.154 |
| | 2017~2019 | -1.5(-5.8~3) | 0.475 |
| Inner Mongolia | 2000~2005 | -3.3*(-4.1~-2.6) | < 0.001 |
| | 2005~2010 | -6.5*(-7.6~-5.5) | < 0.001 |
| | 2010~2014 | -3.4*(-5~-1.7) | 0.001 |
| | 2014~2019 | 0.7(0~1.5) | 0.063 |
| Jiangsu | 2000~2012 | -4.4*(-4.8~-4.1) | < 0.001 |
| | 2012~2019 | 0.7(-0.1~1.5) | 0.076 |
| Jiangxi | 2000~2005 | -6.0*(-6.8~-5.1) | < 0.001 |
| | 2005~2010 | -7.6*(-8.7~-6.4) | < 0.001 |
| | 2010~2014 | -4.1*(-6~-2.1) | 0.001 |
| | 2014~2019 | 0.4(-0.5~1.3) | 0.38 |
| Jilin | 2000~2005 | -4.2*(-5~-3.4) | < 0.001 |
| | 2005~2010 | -5.9*(-7.1~-4.8) | < 0.001 |
| | 2010~2014 | -2.5*(-4.4~-0.6) | 0.017 |
| | 2014~2019 | 0.5(-0.3~1.4) | 0.205 |
| Liaoning | 2000~2005 | -3.4*(-4.2~-2.5) | < 0.001 |
| | 2005~2010 | -5.3*(-6.5~-4.1) | < 0.001 |
| | 2010~2014 | -2.1*(-4~-0.1) | 0.042 |
| | 2014~2019 | 0.7(-0.2~1.6) | 0.123 |
| Macao | 2000~2005 | -2.8*(-3.3~-2.2) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------|-----------|-----------------------------------|---------|
| Ningxia | 2005~2010 | -4.4*(-5.1~-3.6) | < 0.001 |
| | 2010~2014 | -2.1*(-3.3~-0.9) | 0.004 |
| | 2014~2019 | 0.3(-0.2~0.9) | 0.195 |
| | 2000~2005 | -5.9*(-6.7~-5.2) | < 0.001 |
| | 2005~2010 | -7.5*(-8.5~-6.5) | < 0.001 |
| | 2010~2014 | -4.6*(-6.3~-2.9) | < 0.001 |
| Qinghai | 2014~2019 | 0.8*(0~1.6) | 0.046 |
| | 2000~2004 | -5.4*(-5.6~-5.3) | < 0.001 |
| | 2004~2010 | -6.3*(-6.4~-6.2) | < 0.001 |
| | 2010~2014 | -4.1*(-4.4~-3.8) | < 0.001 |
| Shaanxi | 2014~2019 | -2.2*(-2.3~-2.1) | < 0.001 |
| | 2000~2005 | -4.8*(-6~-3.5) | < 0.001 |
| | 2005~2010 | -8.0*(-9.6~-6.2) | < 0.001 |
| | 2010~2014 | -5.0*(-7.7~-2.2) | 0.003 |
| Shandong | 2014~2019 | 1.2(-0.1~2.6) | 0.061 |
| | 2000~2010 | -4.7*(-5~-4.4) | < 0.001 |
| | 2010~2014 | -1.7(-3.6~0.1) | 0.063 |
| | 2014~2017 | 2.8(-1~6.8) | 0.127 |
| Shanghai | 2017~2019 | -1.5(-5.1~2.3) | 0.393 |
| | 2000~2014 | -2.5*(-2.6~-2.3) | < 0.001 |
| | 2014~2017 | 4.8*(0.6~9.2) | 0.027 |
| | 2017~2019 | -1.9(-5.8~2.2) | 0.337 |
| Shanxi | 2000~2005 | -3.9*(-4.9~-3) | < 0.001 |
| | 2005~2010 | -5.6*(-6.9~-4.2) | < 0.001 |
| | 2010~2014 | -1.5(-3.6~0.7) | 0.162 |
| | 2014~2019 | 1.2*(0.2~2.2) | 0.021 |
| Sichuan | 2000~2004 | -5.9*(-6.4~-5.4) | < 0.001 |
| | 2004~2010 | -6.9*(-7.3~-6.6) | < 0.001 |
| | 2010~2014 | -4.5*(-5.3~-3.7) | < 0.001 |
| | 2014~2019 | -1.4*(-1.8~-1.1) | < 0.001 |
| Tianjin | 2000~2005 | -3.7*(-4.4~-3.1) | < 0.001 |
| | 2005~2010 | -6.1*(-7~-5.1) | < 0.001 |
| | 2010~2014 | -2.6*(-4.1~-1.1) | 0.004 |
| | 2014~2019 | 0.3(-0.4~1) | 0.323 |
| Taiwan | 2000~2005 | -1.3*(-1.6~-0.9) | < 0.001 |
| | 2005~2010 | -4.5*(-4.9~-4.1) | < 0.001 |
| | 2010~2017 | 3.2*(2.9~3.4) | < 0.001 |
| | 2017~2019 | -1.3(-2.7~0.1) | 0.062 |
| Xinjiang | 2000~2004 | -5.1*(-5.3~-4.9) | < 0.001 |
| | 2004~2010 | -6.0*(-6.2~-5.9) | < 0.001 |
| | 2010~2015 | -3.2*(-3.3~-3) | < 0.001 |
| | 2015~2019 | -2.2*(-2.4~-2) | < 0.001 |
| Xizang | 2000~2010 | -5.8*(-5.8~-5.7) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|------------------|-----------|-----------------------------------|---------|
| Yunnan | 2010~2016 | -2.8*(-3~-2.5) | < 0.001 |
| | 2016~2019 | -1.8*(-2.3~-1.2) | < 0.001 |
| | 2000~2003 | -6.7*(-7.1~-6.3) | < 0.001 |
| | 2003~2010 | -7.5*(-7.6~-7.3) | < 0.001 |
| Zhejiang | 2010~2016 | -4.6*(-4.8~-4.4) | < 0.001 |
| | 2016~2019 | -2.2*(-2.7~-1.8) | < 0.001 |
| | 2000~2005 | -4.3*(-5.4~-3.2) | < 0.001 |
| | 2005~2010 | -6.6*(-8.1~-5.1) | < 0.001 |
| Under 5 | 2010~2014 | -2(-4.4~0.6) | 0.111 |
| | 2014~2019 | 1.2*(0.1~2.4) | 0.038 |
| Anhui | 2000~2005 | -4.1*(-5~-3.2) | < 0.001 |
| | 2005~2010 | -6.4*(-7.6~-5.2) | < 0.001 |
| | 2010~2014 | -2.8*(-4.8~-0.7) | 0.014 |
| | 2014~2019 | 0.1(-0.9~1) | 0.877 |
| Beijing | 2000~2005 | -3.6*(-4.3~-2.9) | < 0.001 |
| | 2005~2010 | -5.5*(-6.5~-4.6) | < 0.001 |
| | 2010~2014 | -2.2*(-3.8~-0.7) | 0.011 |
| | 2014~2019 | 0.2(-0.6~0.9) | 0.625 |
| Chongqing | 2000~2005 | -5.6*(-6.4~-4.7) | < 0.001 |
| | 2005~2010 | -6.9*(-8.1~-5.7) | < 0.001 |
| | 2010~2014 | -2.5*(-4.5~-0.6) | 0.017 |
| | 2014~2019 | 0(-0.9~0.9) | 0.966 |
| Fujian | 2000~2005 | -5.2*(-5.8~-4.6) | < 0.001 |
| | 2005~2010 | -7.2*(-8~-6.4) | < 0.001 |
| | 2010~2014 | -3.2*(-4.5~-1.8) | 0.001 |
| | 2014~2019 | -0.5(-1.1~0.2) | 0.137 |
| Gansu | 2000~2010 | -5.8*(-6.1~-5.5) | < 0.001 |
| | 2010~2014 | -2.6*(-4.6~-0.7) | 0.013 |
| | 2014~2017 | 1.7(-2.3~5.8) | 0.366 |
| | 2017~2019 | -1.6(-5.5~2.3) | 0.369 |
| Guangdong | 2000~2005 | -4.0*(-4.2~-3.9) | < 0.001 |
| | 2005~2010 | -6.5*(-6.8~-6.2) | < 0.001 |
| | 2010~2014 | -5.1*(-5.5~-4.6) | < 0.001 |
| | 2014~2019 | -1.6*(-1.8~-1.4) | < 0.001 |
| Guangxi | 2000~2002 | -6.2*(-6.7~-5.7) | < 0.001 |
| | 2002~2010 | -7.0*(-7.1~-7) | < 0.001 |
| | 2010~2014 | -4.4*(-4.6~-4.1) | < 0.001 |
| | 2014~2019 | -2.4*(-2.5~-2.3) | < 0.001 |
| Guizhou | 2000~2005 | -7.7*(-7.9~-7.4) | < 0.001 |
| | 2005~2010 | -9.2*(-9.5~-8.8) | < 0.001 |
| | 2010~2017 | -5.5*(-5.7~-5.3) | < 0.001 |
| | 2017~2019 | -3.2*(-4.5~-1.9) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------------|-----------|-----------------------------------|---------|
| Hainan | 2000~2005 | -4.9*(-5.1~-4.7) | < 0.001 |
| | 2005~2010 | -6.5*(-6.7~-6.3) | < 0.001 |
| | 2010~2014 | -3.9*(-4.3~-3.6) | < 0.001 |
| | 2014~2019 | -2.0*(-2.1~-1.8) | < 0.001 |
| Hebei | 2000~2005 | -4.5*(-5.1~-4) | < 0.001 |
| | 2005~2010 | -6.1*(-6.9~-5.3) | < 0.001 |
| | 2010~2014 | -3.9*(-5.1~-2.6) | < 0.001 |
| | 2014~2019 | -0.4(-1~0.1) | 0.119 |
| Heilongjiang | 2000~2010 | -4.8*(-5~-4.6) | < 0.001 |
| | 2010~2014 | -2.4*(-3.7~-1.1) | 0.002 |
| | 2014~2017 | 0.5(-2.2~3.2) | 0.691 |
| | 2017~2019 | -3.4*(-5.9~-0.8) | 0.017 |
| Henan | 2000~2005 | -4.0*(-4.9~-3.1) | < 0.001 |
| | 2005~2010 | -7.3*(-8.6~-6) | < 0.001 |
| | 2010~2014 | -2.5*(-4.6~-0.4) | 0.027 |
| | 2014~2019 | 0(-0.9~1) | 0.958 |
| Hong Kong | 2000~2005 | -1.9*(-2.6~-1.2) | < 0.001 |
| | 2005~2010 | -3.2*(-4.1~-2.2) | < 0.001 |
| | 2010~2014 | -1.2(-2.7~0.4) | 0.118 |
| | 2014~2019 | 0.5(-0.2~1.2) | 0.169 |
| Hubei | 2000~2005 | -3.7*(-4.5~-2.9) | < 0.001 |
| | 2005~2010 | -6.2*(-7.3~-5.1) | < 0.001 |
| | 2010~2014 | -2.8*(-4.6~-1) | 0.008 |
| | 2014~2019 | 0(-0.8~0.8) | 0.99 |
| Hunan | 2000~2010 | -6.7*(-7~-6.5) | < 0.001 |
| | 2010~2014 | -2.9*(-4.7~-1.2) | 0.005 |
| | 2014~2017 | 1.5(-2.1~5.2) | 0.387 |
| | 2017~2019 | -1.8(-5.3~1.8) | 0.278 |
| Inner Mongolia | 2000~2005 | -3.6*(-4.1~-3) | < 0.001 |
| | 2005~2010 | -6.5*(-7.3~-5.8) | < 0.001 |
| | 2010~2014 | -3.5*(-4.8~-2.3) | < 0.001 |
| | 2014~2019 | -0.2(-0.8~0.3) | 0.388 |
| Jiangsu | 2000~2005 | -4.3*(-5.2~-3.4) | < 0.001 |
| | 2005~2010 | -5.7*(-7~-4.4) | < 0.001 |
| | 2010~2014 | -2.2*(-4.3~0) | 0.047 |
| | 2014~2019 | 0.4(-0.5~1.4) | 0.331 |
| Jiangxi | 2000~2005 | -6.6*(-7.2~-6) | < 0.001 |
| | 2005~2010 | -8.0*(-8.8~-7.2) | < 0.001 |
| | 2010~2014 | -4.5*(-5.9~-3.2) | < 0.001 |
| | 2014~2019 | -0.8*(-1.4~-0.2) | 0.017 |
| Jilin | 2000~2005 | -4.4*(-5.1~-3.8) | < 0.001 |
| | 2005~2010 | -6.0*(-6.9~-5.1) | < 0.001 |
| | 2010~2014 | -2.7*(-4.1~-1.2) | 0.003 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------------|-----------|-----------------------------------|---------|
| Liaoning | 2014~2019 | -0.3(-0.9~0.4) | 0.383 |
| | 2000~2005 | -3.6*(-4.2~-2.9) | < 0.001 |
| | 2005~2010 | -5.4*(-6.3~-4.5) | < 0.001 |
| | 2010~2014 | -2.5*(-3.9~-1) | 0.004 |
| Macao | 2014~2019 | -0.1(-0.8~0.6) | 0.747 |
| | 2000~2005 | -2.7*(-3.1~-2.3) | < 0.001 |
| | 2005~2010 | -4.5*(-5.1~-3.9) | < 0.001 |
| | 2010~2014 | -2.6*(-3.6~-1.7) | < 0.001 |
| Ningxia | 2014~2019 | -0.2(-0.7~0.2) | 0.259 |
| | 2000~2005 | -6.4*(-6.8~-5.9) | < 0.001 |
| | 2005~2010 | -7.9*(-8.5~-7.3) | < 0.001 |
| | 2010~2014 | -4.8*(-5.8~-3.8) | < 0.001 |
| Qinghai | 2014~2019 | -0.5(-0.9~0) | 0.05 |
| | 2000~2005 | -5.7*(-5.8~-5.6) | < 0.001 |
| | 2005~2010 | -6.6*(-6.7~-6.5) | < 0.001 |
| | 2010~2017 | -3.9*(-4~-3.9) | < 0.001 |
| Shaanxi | 2017~2019 | -2.7*(-3.1~-2.3) | < 0.001 |
| | 2000~2005 | -5.4*(-6.3~-4.4) | < 0.001 |
| | 2005~2010 | -8.2*(-9.4~-6.9) | < 0.001 |
| | 2010~2014 | -5.3*(-7.4~-3.3) | < 0.001 |
| Shandong | 2014~2019 | 0(-1~0.9) | 0.958 |
| | 2000~2010 | -5.1*(-5.3~-4.9) | < 0.001 |
| | 2010~2014 | -2.2*(-3.6~-0.7) | 0.009 |
| | 2014~2017 | 1.7(-1.3~4.8) | 0.235 |
| Shanghai | 2017~2019 | -1.7(-4.6~1.2) | 0.217 |
| | 2000~2014 | -2.8*(-3~-2.6) | < 0.001 |
| | 2014~2017 | 3.9(-0.1~8.1) | 0.057 |
| Shanxi | 2017~2019 | -1.9(-5.7~2.1) | 0.325 |
| | 2000~2005 | -4.2*(-4.9~-3.5) | < 0.001 |
| | 2005~2010 | -5.7*(-6.7~-4.8) | < 0.001 |
| | 2010~2014 | -2.0*(-3.5~-0.4) | 0.02 |
| Sichuan | 2014~2019 | 0.2(-0.5~0.9) | 0.521 |
| | 2000~2005 | -6.5*(-6.6~-6.4) | < 0.001 |
| | 2005~2010 | -7.2*(-7.3~-7.1) | < 0.001 |
| | 2010~2014 | -4.6*(-4.8~-4.5) | < 0.001 |
| Tianjin | 2014~2019 | -2.7*(-2.8~-2.7) | < 0.001 |
| | 2000~2005 | -3.9*(-4.4~-3.4) | < 0.001 |
| | 2005~2010 | -6.0*(-6.7~-5.3) | < 0.001 |
| | 2010~2014 | -2.8*(-3.9~-1.7) | < 0.001 |
| Taiwan | 2014~2019 | -0.3(-0.9~0.2) | 0.187 |
| | 2000~2005 | -1.2*(-1.5~-0.8) | < 0.001 |
| | 2005~2010 | -4.7*(-5.2~-4.2) | < 0.001 |
| | 2010~2017 | 3.1*(2.8~3.4) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | P |
|-----------|-----------|-----------------------------------|---------|
| Xinjiang | 2017~2019 | -1.1(-2.7~0.5) | 0.155 |
| | 2000~2005 | -4.9*(-5.3~-4.5) | < 0.001 |
| | 2005~2010 | -6.2*(-6.8~-5.5) | < 0.001 |
| | 2010~2014 | -3.2*(-4.2~-2.2) | < 0.001 |
| | 2014~2019 | -4.0*(-4.4~-3.5) | < 0.001 |
| Xizang | 2000~2004 | -5.7*(-6.2~-5.3) | < 0.001 |
| | 2004~2010 | -6.3*(-6.6~-6) | < 0.001 |
| | 2010~2019 | -3.1*(-3.3~-3) | < 0.001 |
| Yunnan | 2000~2005 | -7.3*(-7.5~-7.2) | < 0.001 |
| | 2005~2010 | -8.3*(-8.5~-8.1) | < 0.001 |
| | 2010~2017 | -4.8*(-4.9~-4.6) | < 0.001 |
| Zhejiang | 2017~2019 | -2.5*(-3.2~-1.8) | < 0.001 |
| | 2000~2005 | -4.8*(-5.6~-4) | < 0.001 |
| | 2005~2010 | -6.8*(-7.9~-5.6) | < 0.001 |
| | 2010~2014 | -2.4*(-4.3~-0.5) | 0.02 |
| | 2014~2019 | 0.5(-0.4~1.4) | 0.237 |

CI: Confidence interval.

Supplement Table S3. Deaths of lower respiratory infections among children under 5 years in 2019 by provinces in China.

| Provinces | Deaths (95% UI) | Mortality Rate per 100000 (95% UI) |
|----------------|-----------------|------------------------------------|
| Anhui | 494(394~578) | 12.2(9.0~16.2) |
| Beijing | 43(34~50) | 4.4(3.2~5.9) |
| Chongqing | 339(245~381) | 18.1(12.6~25) |
| Fujian | 363(312~441) | 12.9(9.9~16.5) |
| Gansu | 330(268~391) | 21.7(16.1~28.5) |
| Guangdong | 683(545~817) | 9.0(6.5~11.7) |
| Guangxi | 635(537~765) | 18.3(13.9~23.6) |
| Guizhou | 1018(888~1260) | 40.4(30.8~50.7) |
| Hainan | 176(137~204) | 24.4(17.8~32.8) |
| Hebei | 645(500~754) | 14.2(10.2~18.9) |
| Heilongjiang | 193(160~232) | 18.5(13.8~23.9) |
| Henan | 916(678~1027) | 14.0(10.0~19.4) |
| Hong Kong | 7(4~8) | 2.2(1.4~3.3) |
| Hubei | 578(470~680) | 16.3(12.2~21.5) |
| Hunan | 516(422~609) | 12.0(9.0~15.8) |
| Inner Mongolia | 178(139~205) | 16.2(11.9~21.8) |
| Jiangsu | 241(186~278) | 5.8(4.2~7.8) |
| Jiangxi | 761(659~931) | 25.6(19.6~32.5) |
| Jilin | 76(61~90) | 9.4(6.9~12.3) |
| Liaoning | 143(109~165) | 9.8(7.0~13.2) |
| Macao | 2(1~2) | 5.7(3.6~8) |

| Provinces | Deaths (95% UI) | Mortality Rate per 100000 (95% UI) |
|-----------|--------------------|------------------------------------|
| Ningxia | 117(82~129) | 22.8(15.7~32) |
| Qinghai | 251(208~298) | 58.6(44.3~76.5) |
| Shaanxi | 349(262~399) | 15.9(11.3~21.6) |
| Shandong | 644(499~744) | 8.4(6.1~11.3) |
| Shanghai | 62(45~70) | 6.0(4.2~8.3) |
| Shanxi | 321(247~368) | 17.2(12.5~23.3) |
| Sichuan | 1208(1084~1520) | 28.1(21.7~34.7) |
| Tianjin | 40(32~47) | 7.9(5.9~10.4) |
| Taiwan | 37(32~45) | 3.8(2.9~4.9) |
| Xinjiang | 1572(1419~1942) | 100.0(79.1~125.8) |
| Xizang | 287(224~333) | 103.3(75.0~138.3) |
| Yunnan | 1302(1067~1561) | 41.9(31.0~54.3) |
| Zhejiang | 222(171~255) | 6.2(4.5~8.4) |
| China | 14749(12124~17579) | 18.1(14.9~21.6) |

UI, Uncertainty interval.

Supplement Table S4. Joinpoint analysis of notification mortality rate per 100000 of lower respiratory infections among children under 5 years by age and provinces in China, 2000-2019.

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------------|-----------|-----------------------------------|----------|
| Early Neonatal | | | |
| Anhui | 2000~2009 | -7.5*(-7.9~-7.1) | < 0.001 |
| | 2009~2019 | -10.8*(-11.1~-10.5) | < 0.001 |
| Beijing | 2000~2007 | -9.0*(-9.5~-8.6) | < 0.001 |
| | 2007~2013 | -7.3*(-8.1~-6.6) | < 0.001 |
| | 2013~2019 | -5.8*(-6.4~-5.3) | < 0.001 |
| Chongqing | 2000~2015 | -7.3*(-7.6~-7.1) | < 0.001 |
| | 2015~2019 | -12.4*(-14.3~-10.5) | < 0.001 |
| Fujian | 2000~2006 | -10.3*(-10.8~-9.8) | < 0.001 |
| | 2006~2009 | -7.4*(-10.2~-4.4) | < 0.001 |
| | 2009~2019 | -9.1*(-9.4~-8.9) | < 0.001 |
| Gansu | 2000~2010 | -5.6*(-5.9~-5.2) | < 0.001 |
| | 2010~2019 | -11.0*(-11.4~-10.6) | < 0.001 |
| Guangdong | 2000~2013 | -10.7*(-10.9~-10.4) | < 0.001 |
| | 2013~2019 | -8.5*(-9.2~-7.8) | < 0.001 |
| Guangxi | 2000~2004 | -8.7*(-9.9~-7.6) | < 0.001 |
| | 2004~2012 | -11.2*(-11.7~-10.8) | < 0.001 |
| | 2012~2019 | -8.9*(-9.4~-8.4) | < 0.001 |
| Guizhou | 2000~2010 | -5.8*(-6.1~-5.5) | < 0.001 |
| | 2010~2019 | -12.0*(-12.3~-11.7) | < 0.001 |
| Hainan | 2000~2005 | -5.0*(-5.8~-4.2) | < 0.001 |
| | 2005~2009 | -7.0*(-8.7~-5.2) | < 0.001 |
| | 2009~2019 | -10.5*(-10.8~-10.3) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------------|-----------|-----------------------------------|----------|
| Hebei | 2000~2009 | -6.5*(-7~-6.1) | < 0.001 |
| | 2009~2019 | -10.0*(-10.3~-9.6) | < 0.001 |
| Heilongjiang | 2000~2007 | -7.9*(-8.4~-7.4) | < 0.001 |
| | 2007~2015 | -6.0*(-6.5~-5.4) | < 0.001 |
| | 2015~2019 | -8.7*(-9.9~-7.5) | < 0.001 |
| Henan | 2000~2004 | -10.8*(-12.1~-9.5) | < 0.001 |
| | 2004~2007 | -13.6*(-17.4~-9.6) | < 0.001 |
| | 2007~2019 | -8.7*(-9~-8.5) | < 0.001 |
| Hong Kong | 2000~2010 | -2.9*(-4.1~-1.8) | < 0.001 |
| | 2010~2019 | -9.5*(-10.7~-8.2) | < 0.001 |
| Hubei | 2000~2007 | -8.2*(-8.6~-7.9) | < 0.001 |
| | 2007~2010 | -6.9*(-9.6~-4) | < 0.001 |
| | 2010~2013 | -11.8*(-14.4~-9.2) | < 0.001 |
| | 2013~2019 | -9.6*(-10.1~-9.2) | < 0.001 |
| Hunan | 2000~2006 | -11.2*(-11.9~-10.5) | < 0.001 |
| | 2006~2019 | -9.2*(-9.4~-9) | < 0.001 |
| Inner Mongolia | 2000~2011 | -7.8*(-8.1~-7.4) | < 0.001 |
| | 2011~2019 | -9.2*(-9.7~-8.7) | < 0.001 |
| Jiangsu | 2000~2006 | -11.6*(-12.3~-11) | < 0.001 |
| | 2006~2019 | -8.8*(-9~-8.6) | < 0.001 |
| Jiangxi | 2000~2006 | -8.2*(-8.6~-7.8) | < 0.001 |
| | 2006~2010 | -4.7*(-5.9~-3.4) | < 0.001 |
| | 2010~2015 | -8.9*(-9.7~-8.2) | < 0.001 |
| | 2015~2019 | -11.8*(-12.6~-11.1) | < 0.001 |
| Jilin | 2000~2010 | -9.6*(-9.9~-9.3) | < 0.001 |
| | 2010~2013 | -14.0*(-17.7~-10.1) | < 0.001 |
| | 2013~2019 | -8.2*(-8.9~-7.5) | < 0.001 |
| Liaoning | 2000~2004 | -6.8*(-7.9~-5.6) | < 0.001 |
| | 2004~2010 | -8.6*(-9.4~-7.8) | < 0.001 |
| | 2010~2013 | -10.6*(-14~-7.2) | < 0.001 |
| | 2013~2019 | -7.6*(-8.2~-7) | < 0.001 |
| Macao | 2000~2010 | -5.6*(-6.2~-5.1) | < 0.001 |
| | 2010~2019 | -8.0*(-8.7~-7.3) | < 0.001 |
| Ningxia | 2000~2004 | -5.0*(-5.8~-4.2) | < 0.001 |
| | 2004~2009 | -9.0*(-9.8~-8.2) | < 0.001 |
| | 2009~2013 | -12.6*(-13.8~-11.5) | < 0.001 |
| | 2013~2019 | -10.5*(-10.9~-10.1) | < 0.001 |
| Qinghai | 2000~2015 | -5.6*(-5.8~-5.5) | < 0.001 |
| | 2015~2019 | -10.2*(-11.2~-9.1) | < 0.001 |
| Shaanxi | 2000~2004 | -5.3*(-6.3~-4.2) | < 0.001 |
| | 2004~2009 | -10.4*(-11.4~-9.4) | < 0.001 |
| | 2009~2013 | -15.1*(-16.5~-13.6) | < 0.001 |
| | 2013~2019 | -10.7*(-11.3~-10.2) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|----------------------|-----------|-----------------------------------|----------|
| Shandong | 2000~2019 | -8.5*(-8.6~-8.3) | < 0.001 |
| Shanghai | 2000~2003 | -8.6*(-10.9~-6.2) | < 0.001 |
| | 2003~2009 | -4.0*(-5.1~-2.9) | < 0.001 |
| | 2009~2019 | -5.5*(-5.8~-5.1) | < 0.001 |
| Shanxi | 2000~2004 | -4.3*(-5.8~-2.7) | < 0.001 |
| | 2004~2015 | -6.4*(-6.8~-6.1) | < 0.001 |
| | 2015~2019 | -9.8*(-11.2~-8.3) | < 0.001 |
| Sichuan | 2000~2009 | -7.0*(-7.4~-6.6) | < 0.001 |
| | 2009~2019 | -10.3*(-10.6~-10) | < 0.001 |
| Tianjin | 2000~2013 | -7.4*(-7.6~-7.2) | < 0.001 |
| | 2013~2019 | -5.0*(-5.6~-4.3) | < 0.001 |
| Taiwan | 2000~2019 | -0.4(-0.9~0.1) | 0.133 |
| Xinjiang | 2000~2016 | -3.8*(-3.9~-3.6) | < 0.001 |
| | 2016~2019 | -9.0*(-10.9~-7.1) | < 0.001 |
| Xizang | 2000~2006 | -5.5*(-6.1~-5) | < 0.001 |
| | 2006~2013 | -4.7*(-5.2~-4.1) | < 0.001 |
| | 2013~2016 | -2.2(-5.5~1.1) | 0.167 |
| | 2016~2019 | -8.2*(-9.7~-6.6) | < 0.001 |
| Yunnan | 2000~2004 | -4.3*(-5.7~-2.9) | < 0.001 |
| | 2004~2009 | -6.1*(-7.5~-4.7) | < 0.001 |
| | 2009~2019 | -10.8*(-11.2~-10.5) | < 0.001 |
| Zhejiang | 2000~2010 | -10.7*(-11~-10.4) | < 0.001 |
| | 2010~2013 | -13.5*(-17.3~-9.6) | < 0.001 |
| | 2013~2019 | -9.9*(-10.6~-9.2) | < 0.001 |
| Late Neonatal | | | |
| Anhui | 2000~2013 | -9.7*(-9.8~-9.5) | < 0.001 |
| | 2013~2019 | -8.6*(-9.2~-8.1) | < 0.001 |
| Beijing | 2000~2013 | -9.8*(-9.9~-9.6) | < 0.001 |
| | 2013~2019 | -5.5*(-6.2~-4.9) | < 0.001 |
| Chongqing | 2000~2007 | -10.8*(-11.2~-10.3) | < 0.001 |
| | 2007~2016 | -6.0*(-6.4~-5.6) | < 0.001 |
| | 2016~2019 | -9.7*(-11.4~-7.9) | < 0.001 |
| Fujian | 2000~2006 | -11.6*(-12.2~-10.9) | < 0.001 |
| | 2006~2019 | -7.8*(-8~-7.6) | < 0.001 |
| Gansu | 2000~2007 | -10.5*(-10.9~-10.1) | < 0.001 |
| | 2007~2010 | -8.3*(-11.5~-5) | < 0.001 |
| | 2010~2013 | -10.7*(-13.8~-7.5) | < 0.001 |
| | 2013~2019 | -8.6*(-9.1~-8) | < 0.001 |
| Guangdong | 2000~2013 | -11.0*(-11.2~-10.8) | < 0.001 |
| | 2013~2019 | -7.5*(-8.2~-6.8) | < 0.001 |
| Guangxi | 2000~2007 | -10.5*(-10.9~-10.2) | < 0.001 |
| | 2007~2013 | -9.1*(-9.7~-8.5) | < 0.001 |
| | 2013~2019 | -7.4*(-7.9~-7) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------------|-----------|-----------------------------------|----------|
| Guizhou | 2000~2013 | -10.8*(-11~-10.6) | < 0.001 |
| | 2013~2019 | -8.7*(-9.3~-8) | < 0.001 |
| Hainan | 2000~2019 | -8.1*(-8.2~-8) | < 0.001 |
| Hebei | 2000~2013 | -8.2*(-8.4~-8) | < 0.001 |
| | 2013~2019 | -6.7*(-7.4~-6) | < 0.001 |
| Heilongjiang | 2000~2007 | -9.7*(-10.1~-9.3) | < 0.001 |
| | 2007~2013 | -7.3*(-7.9~-6.6) | < 0.001 |
| | 2013~2019 | -5.9*(-6.4~-5.4) | < 0.001 |
| Henan | 2000~2007 | -13.1*(-13.6~-12.6) | < 0.001 |
| | 2007~2012 | -8.6*(-9.8~-7.3) | < 0.001 |
| | 2012~2019 | -7.3*(-7.8~-6.8) | < 0.001 |
| Hong Kong | 2000~2006 | 0.1(-2.9~3.3) | 0.936 |
| | 2006~2019 | -8.8*(-9.6~-7.9) | < 0.001 |
| Hubei | 2000~2006 | -11.2*(-11.7~-10.6) | < 0.001 |
| | 2006~2019 | -7.3*(-7.5~-7.1) | < 0.001 |
| Hunan | 2000~2003 | -14.6*(-16.7~-12.5) | < 0.001 |
| | 2003~2007 | -11.2*(-13.4~-9) | < 0.001 |
| | 2007~2019 | -7.8*(-8.1~-7.5) | < 0.001 |
| Inner Mongolia | 2000~2007 | -10.8*(-11.4~-10.1) | < 0.001 |
| | 2007~2019 | -7.5*(-7.8~-7.2) | < 0.001 |
| Jiangsu | 2000~2006 | -12.3*(-12.7~-11.8) | < 0.001 |
| | 2006~2013 | -9.5*(-9.9~-9) | < 0.001 |
| | 2013~2019 | -7.6*(-8.1~-7.1) | < 0.001 |
| Jiangxi | 2000~2006 | -11.9*(-12.4~-11.4) | < 0.001 |
| | 2006~2010 | -7.4*(-9~-5.9) | < 0.001 |
| | 2010~2019 | -8.3*(-8.6~-8) | < 0.001 |
| Jilin | 2000~2007 | -9.6*(-10~-9.2) | < 0.001 |
| | 2007~2010 | -7.8*(-10.7~-4.7) | < 0.001 |
| | 2010~2013 | -11.1*(-14~-8.2) | < 0.001 |
| | 2013~2019 | -6.6*(-7.1~-6.1) | < 0.001 |
| Liaoning | 2000~2010 | -8.7*(-9~-8.5) | < 0.001 |
| | 2010~2013 | -10.4*(-13.6~-7.1) | < 0.001 |
| | 2013~2019 | -6.3*(-6.9~-5.7) | < 0.001 |
| Macao | 2000~2010 | -5.7*(-6.3~-5.2) | < 0.001 |
| | 2010~2019 | -7.4*(-8~-6.7) | < 0.001 |
| Ningxia | 2000~2010 | -10.9*(-11.2~-10.6) | < 0.001 |
| | 2010~2013 | -12.3*(-15.8~-8.7) | < 0.001 |
| | 2013~2019 | -8.2*(-8.8~-7.5) | < 0.001 |
| Qinghai | 2000~2007 | -9.5*(-10.1~-9) | < 0.001 |
| | 2007~2016 | -7.0*(-7.4~-6.5) | < 0.001 |
| | 2016~2019 | -8.6*(-10.6~-6.6) | < 0.001 |
| Shaanxi | 2000~2013 | -12.5*(-12.7~-12.2) | < 0.001 |
| | 2013~2019 | -8.6*(-9.3~-7.8) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|----------------------|-----------|-----------------------------------|----------|
| Shandong | 2000~2006 | -10.5*(-11~-9.9) | < 0.001 |
| | 2006~2010 | -6.9*(-8.6~-5.2) | < 0.001 |
| | 2010~2013 | -9.7*(-12.9~-6.4) | < 0.001 |
| | 2013~2019 | -6.9*(-7.5~-6.3) | < 0.001 |
| Shanghai | 2000~2003 | -11.0*(-12.7~-9.3) | < 0.001 |
| | 2003~2013 | -5.8*(-6.1~-5.4) | < 0.001 |
| | 2013~2019 | -4.0*(-4.6~-3.3) | < 0.001 |
| Shanxi | 2000~2012 | -7.6*(-7.9~-7.3) | < 0.001 |
| | 2012~2019 | -6.3*(-6.9~-5.7) | < 0.001 |
| Sichuan | 2000~2007 | -9.7*(-10~-9.4) | < 0.001 |
| | 2007~2010 | -7.8*(-10.1~-5.4) | < 0.001 |
| | 2010~2013 | -11.0*(-13.2~-8.7) | < 0.001 |
| | 2013~2019 | -7.9*(-8.3~-7.5) | < 0.001 |
| Tianjin | 2000~2012 | -8.4*(-8.6~-8.2) | < 0.001 |
| | 2012~2019 | -4.2*(-4.7~-3.6) | < 0.001 |
| Taiwan | 2000~2016 | 0.4(-0.1~1) | 0.109 |
| | 2016~2019 | -5.5(-12.1~1.7) | 0.119 |
| Xinjiang | 2000~2003 | -7.8*(-10.1~-5.5) | < 0.001 |
| | 2003~2016 | -5.3*(-5.6~-5) | < 0.001 |
| | 2016~2019 | -8.7*(-11~-6.4) | < 0.001 |
| Xizang | 2000~2007 | -9.8*(-10.1~-9.4) | < 0.001 |
| | 2007~2013 | -6.7*(-7.4~-6.1) | < 0.001 |
| | 2013~2016 | -2.9(-5.9~0.2) | 0.06 |
| | 2016~2019 | -7.6*(-9~-6.2) | < 0.001 |
| Yunnan | 2000~2007 | -9.4*(-9.8~-8.9) | < 0.001 |
| | 2007~2010 | -7.2*(-10.6~-3.7) | 0.001 |
| | 2010~2013 | -11.7*(-14.9~-8.3) | < 0.001 |
| | 2013~2019 | -8.4*(-9~-7.8) | < 0.001 |
| Zhejiang | 2000~2003 | -11.6*(-13.7~-9.5) | < 0.001 |
| | 2003~2014 | -9.7*(-10~-9.3) | < 0.001 |
| | 2014~2019 | -8.6*(-9.6~-7.6) | < 0.001 |
| Post Neonatal | | | |
| Anhui | 2000~2003 | -13.1*(-13.9~-12.2) | < 0.001 |
| | 2003~2006 | -11.6*(-13.3~-9.9) | < 0.001 |
| | 2006~2015 | -12.4*(-12.5~-12.2) | < 0.001 |
| | 2015~2019 | -9.7*(-10.2~-9.2) | < 0.001 |
| Beijing | 2000~2002 | -10.1*(-12.2~-8) | < 0.001 |
| | 2002~2009 | -11.6*(-12~-11.3) | < 0.001 |
| | 2009~2014 | -8.6*(-9.2~-7.9) | < 0.001 |
| | 2014~2019 | -5.8*(-6.2~-5.3) | < 0.001 |
| Chongqing | 2000~2007 | -13.2*(-13.5~-13) | < 0.001 |
| | 2007~2015 | -9.4*(-9.7~-9.2) | < 0.001 |
| | 2015~2019 | -11.4*(-12~-10.8) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|---------------------|-----------|-----------------------------------|----------|
| Fujian | 2000~2003 | -15.2*(-15.8~-14.6) | < 0.001 |
| | 2003~2007 | -12.6*(-13.3~-12) | < 0.001 |
| | 2007~2016 | -10.5*(-10.7~-10.4) | < 0.001 |
| | 2016~2019 | -8.4*(-9.1~-7.7) | < 0.001 |
| Gansu | 2000~2007 | -13.2*(-13.4~-12.9) | < 0.001 |
| | 2007~2017 | -12.0*(-12.1~-11.8) | < 0.001 |
| | 2017~2019 | -8.3*(-10.2~-6.4) | < 0.001 |
| Guangdong | 2000~2005 | -11.7*(-12~-11.3) | < 0.001 |
| | 2005~2010 | -14.0*(-14.5~-13.5) | < 0.001 |
| | 2010~2016 | -11.0*(-11.4~-10.7) | < 0.001 |
| | 2016~2019 | -7.2*(-8.1~-6.4) | < 0.001 |
| Guangxi | 2000~2002 | -10.8*(-13.1~-8.4) | < 0.001 |
| | 2002~2010 | -13.3*(-13.6~-13) | < 0.001 |
| | 2010~2015 | -12.0*(-12.7~-11.2) | < 0.001 |
| | 2015~2019 | -9.1*(-9.9~-8.4) | < 0.001 |
| Guizhou | 2000~2002 | -10.9*(-13.4~-8.4) | < 0.001 |
| | 2002~2011 | -15.4*(-15.6~-15.1) | < 0.001 |
| | 2011~2015 | -13.3*(-14.5~-12.1) | < 0.001 |
| | 2015~2019 | -10.0*(-10.8~-9.2) | < 0.001 |
| Hainan | 2000~2005 | -10.2*(-10.7~-9.7) | < 0.001 |
| | 2005~2008 | -12.1*(-14.1~-10.1) | < 0.001 |
| | 2008~2015 | -11.3*(-11.6~-10.9) | < 0.001 |
| | 2015~2019 | -9.6*(-10.2~-8.9) | < 0.001 |
| Hebei | 2000~2003 | -12.7*(-13.3~-12) | < 0.001 |
| | 2003~2007 | -10.5*(-11.2~-9.8) | < 0.001 |
| | 2007~2015 | -9.9*(-10~-9.7) | < 0.001 |
| | 2015~2019 | -7.9*(-8.4~-7.5) | < 0.001 |
| Heilongjiang | 2000~2004 | -11.5*(-12~-11) | < 0.001 |
| | 2004~2008 | -10.2*(-11~-9.3) | < 0.001 |
| | 2008~2013 | -7.4*(-7.9~-6.9) | < 0.001 |
| | 2013~2019 | -7.0*(-7.3~-6.7) | < 0.001 |
| Henan | 2000~2003 | -17.0*(-17.8~-16.1) | < 0.001 |
| | 2003~2007 | -13.9*(-14.7~-13.1) | < 0.001 |
| | 2007~2010 | -11.8*(-13.6~-10.1) | < 0.001 |
| | 2010~2019 | -9.5*(-9.6~-9.3) | < 0.001 |
| Hong Kong | 2000~2015 | -5.3*(-5.8~-4.7) | < 0.001 |
| | 2015~2019 | -9.1*(-12.9~-5.1) | < 0.001 |
| Hubei | 2000~2003 | -14.0*(-15~-13.1) | < 0.001 |
| | 2003~2007 | -11.6*(-12.6~-10.6) | < 0.001 |
| | 2007~2017 | -10.1*(-10.3~-10) | < 0.001 |
| | 2017~2019 | -9.1*(-11.1~-7) | < 0.001 |
| Hunan | 2000~2004 | -17.8*(-18.3~-17.4) | < 0.001 |
| | 2004~2008 | -14.2*(-14.9~-13.5) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------------|-----------|-----------------------------------|----------|
| Inner Mongolia | 2008~2014 | -11.7*(-12.1~-11.4) | < 0.001 |
| | 2014~2019 | -10.0*(-10.3~-9.6) | < 0.001 |
| | 2000~2003 | -14.6*(-15.4~-13.8) | < 0.001 |
| | 2003~2008 | -12.3*(-12.8~-11.7) | < 0.001 |
| Jiangsu | 2008~2019 | -8.3*(-8.4~-8.2) | < 0.001 |
| | 2000~2004 | -16.0*(-16.4~-15.6) | < 0.001 |
| | 2004~2008 | -13.9*(-14.6~-13.2) | < 0.001 |
| | 2008~2011 | -11.0*(-12.5~-9.6) | < 0.001 |
| Jiangxi | 2011~2019 | -8.5*(-8.6~-8.3) | < 0.001 |
| | 2000~2006 | -14.9*(-15.2~-14.6) | < 0.001 |
| | 2006~2010 | -12.9*(-13.8~-11.9) | < 0.001 |
| | 2010~2015 | -11.3*(-11.9~-10.7) | < 0.001 |
| Jilin | 2015~2019 | -9.1*(-9.7~-8.5) | < 0.001 |
| | 2000~2004 | -11.7*(-12.2~-11.2) | < 0.001 |
| | 2004~2013 | -10.3*(-10.5~-10.1) | < 0.001 |
| | 2013~2019 | -7.5*(-7.8~-7.3) | < 0.001 |
| Liaoning | 2000~2005 | -10.2*(-10.6~-9.8) | < 0.001 |
| | 2005~2010 | -11.2*(-11.7~-10.6) | < 0.001 |
| | 2010~2014 | -9.8*(-10.7~-8.8) | < 0.001 |
| | 2014~2019 | -7.8*(-8.2~-7.3) | < 0.001 |
| Macao | 2000~2003 | -8.2*(-9.8~-6.6) | < 0.001 |
| | 2003~2006 | -3.8*(-7.1~-0.4) | 0.033 |
| | 2006~2011 | -6.7*(-7.8~-5.7) | < 0.001 |
| | 2011~2019 | -8.4*(-8.7~-8) | < 0.001 |
| Ningxia | 2000~2008 | -14.5*(-14.7~-14.3) | < 0.001 |
| | 2008~2014 | -12.8*(-13.2~-12.4) | < 0.001 |
| | 2014~2019 | -9.9*(-10.4~-9.5) | < 0.001 |
| | 2000~2002 | -9.1*(-10.1~-8.1) | < 0.001 |
| Qinghai | 2002~2008 | -10.6*(-10.8~-10.4) | < 0.001 |
| | 2008~2015 | -7.4*(-7.5~-7.2) | < 0.001 |
| | 2015~2019 | -10.0*(-10.3~-9.7) | < 0.001 |
| | 2000~2004 | -14.6*(-15.4~-13.7) | < 0.001 |
| Shaanxi | 2004~2010 | -16.8*(-17.4~-16.2) | < 0.001 |
| | 2010~2014 | -14.1*(-15.4~-12.7) | < 0.001 |
| | 2014~2019 | -10.0*(-10.6~-9.3) | < 0.001 |
| | 2000~2003 | -14.7*(-15.3~-14) | < 0.001 |
| Shandong | 2003~2007 | -12.1*(-12.7~-11.4) | < 0.001 |
| | 2007~2012 | -9.4*(-9.9~-9) | < 0.001 |
| | 2012~2019 | -8.1*(-8.2~-7.9) | < 0.001 |
| | 2000~2004 | -10.5*(-11.2~-9.8) | < 0.001 |
| Shanghai | 2004~2011 | -3.9*(-4.3~-3.5) | < 0.001 |
| | 2011~2015 | -6.9*(-8~-5.7) | < 0.001 |
| | 2015~2019 | -5.2*(-6~-4.5) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|------------------|-----------|-----------------------------------|----------|
| Shanxi | 2000~2005 | -10.6*(-10.9~-10.2) | < 0.001 |
| | 2005~2010 | -11.4*(-11.9~-10.9) | < 0.001 |
| | 2010~2013 | -9.5*(-11.2~-7.7) | < 0.001 |
| | 2013~2019 | -7.7*(-8~-7.3) | < 0.001 |
| Sichuan | 2000~2004 | -13.3*(-13.9~-12.7) | < 0.001 |
| | 2004~2011 | -11.2*(-11.5~-10.9) | < 0.001 |
| | 2011~2015 | -12.1*(-13~-11.2) | < 0.001 |
| | 2015~2019 | -9.7*(-10.3~-9.2) | < 0.001 |
| Tianjin | 2000~2003 | -10.1*(-11~-9.2) | < 0.001 |
| | 2003~2010 | -8.6*(-8.9~-8.3) | < 0.001 |
| | 2010~2019 | -5.8*(-6~-5.7) | < 0.001 |
| Taiwan | 2000~2015 | 1.2*(0.5~1.9) | 0.004 |
| | 2015~2019 | -5*(-10.1~0.3) | 0.064 |
| Xinjiang | 2000~2003 | -8.0*(-8.4~-7.6) | < 0.001 |
| | 2003~2012 | -5.1*(-5.2~-5) | < 0.001 |
| | 2012~2016 | -6.9*(-7.4~-6.5) | < 0.001 |
| | 2016~2019 | -10.3*(-10.7~-9.8) | < 0.001 |
| Xizang | 2000~2004 | -11.5*(-12.2~-10.9) | < 0.001 |
| | 2004~2009 | -9.9*(-10.6~-9.3) | < 0.001 |
| | 2009~2016 | -5.1*(-5.4~-4.7) | < 0.001 |
| | 2016~2019 | -7.9*(-8.9~-6.8) | < 0.001 |
| Yunnan | 2000~2005 | -13.7*(-14.2~-13.2) | < 0.001 |
| | 2005~2011 | -11.0*(-11.5~-10.5) | < 0.001 |
| | 2011~2014 | -12.6*(-14.8~-10.3) | < 0.001 |
| | 2014~2019 | -9.6*(-10.1~-9) | < 0.001 |
| Zhejiang | 2000~2004 | -15.1*(-15.5~-14.7) | < 0.001 |
| | 2004~2008 | -13.0*(-13.7~-12.4) | < 0.001 |
| | 2008~2017 | -10.8*(-10.9~-10.6) | < 0.001 |
| | 2017~2019 | -7.7*(-9.1~-6.4) | < 0.001 |
| 1 to 4 | | | |
| Anhui | 2000~2006 | -13.8*(-14.6~-13.1) | < 0.001 |
| | 2006~2019 | -9.9*(-10.1~-9.7) | < 0.001 |
| Beijing | 2000~2008 | -9.0*(-9.3~-8.7) | < 0.001 |
| | 2008~2012 | -6.6*(-8.2~-5.1) | < 0.001 |
| | 2012~2015 | -8.4*(-11.4~-5.3) | < 0.001 |
| | 2015~2019 | -6.0*(-7~-5) | < 0.001 |
| Chongqing | 2000~2007 | -13.7*(-14.2~-13.1) | < 0.001 |
| | 2007~2017 | -7.5*(-7.9~-7) | < 0.001 |
| | 2017~2019 | -12.9*(-17.2~-8.5) | < 0.001 |
| Fujian | 2000~2004 | -15.2*(-16.2~-14.1) | < 0.001 |
| | 2004~2007 | -13.2*(-16.5~-9.8) | < 0.001 |
| | 2007~2019 | -9.0*(-9.2~-8.8) | < 0.001 |
| Gansu | 2000~2003 | -17.0*(-18.9~-15) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------------|-----------|-----------------------------------|----------|
| Guangdong | 2003~2007 | -13.5*(-15.5~-11.5) | < 0.001 |
| | 2007~2019 | -9.4*(-9.6~-9.1) | < 0.001 |
| | 2000~2005 | -9.4*(-10.1~-8.8) | < 0.001 |
| | 2005~2015 | -11.4*(-11.6~-11.1) | < 0.001 |
| Guangxi | 2015~2019 | -8.3*(-9.2~-7.4) | < 0.001 |
| | 2000~2004 | -15.1*(-15.9~-14.2) | < 0.001 |
| | 2004~2007 | -12.9*(-15.6~-10.2) | < 0.001 |
| | 2007~2015 | -10.6*(-10.9~-10.2) | < 0.001 |
| Guizhou | 2015~2019 | -9.3*(-10.1~-8.4) | < 0.001 |
| | 2000~2008 | -18.5*(-18.9~-18.1) | < 0.001 |
| | 2008~2012 | -12.9*(-14.9~-10.9) | < 0.001 |
| | 2012~2019 | -9.9*(-10.5~-9.4) | < 0.001 |
| Hainan | 2000~2009 | -10.7*(-11~-10.4) | < 0.001 |
| | 2009~2019 | -9.0*(-9.2~-8.7) | < 0.001 |
| Hebei | 2000~2007 | -14.0*(-14.5~-13.4) | < 0.001 |
| | 2007~2019 | -7.9*(-8.2~-7.7) | < 0.001 |
| Heilongjiang | 2000~2007 | -11.6*(-12.1~-11.1) | < 0.001 |
| | 2007~2019 | -6.5*(-6.8~-6.3) | < 0.001 |
| Henan | 2000~2004 | -20.0*(-20.9~-19.1) | < 0.001 |
| | 2004~2007 | -15.8*(-18.6~-12.8) | < 0.001 |
| Hong Kong | 2007~2019 | -7.9*(-8.1~-7.7) | < 0.001 |
| | 2000~2003 | -11.3*(-17.3~-4.7) | 0.003 |
| | 2003~2010 | 0.3(-2.1~2.7) | 0.798 |
| | 2010~2019 | -10.4*(-11.6~-9.3) | < 0.001 |
| Hubei | 2000~2004 | -15.6*(-16.7~-14.5) | < 0.001 |
| | 2004~2007 | -11.7*(-15.1~-8.1) | < 0.001 |
| | 2007~2013 | -7.3*(-8.2~-6.5) | < 0.001 |
| | 2013~2019 | -8.4*(-9~-7.8) | < 0.001 |
| Hunan | 2000~2003 | -17.8*(-19.5~-16) | < 0.001 |
| | 2003~2007 | -14.0*(-15.8~-12.2) | < 0.001 |
| | 2007~2013 | -11.2*(-12~-10.4) | < 0.001 |
| | 2013~2019 | -9.3*(-9.9~-8.6) | < 0.001 |
| Inner Mongolia | 2000~2003 | -14.6*(-15.3~-13.9) | < 0.001 |
| | 2003~2008 | -10.9*(-11.4~-10.5) | < 0.001 |
| | 2008~2017 | -7.1*(-7.3~-6.9) | < 0.001 |
| | 2017~2019 | -9.3*(-10.8~-7.9) | < 0.001 |
| Jiangsu | 2000~2007 | -15.5*(-16.2~-14.8) | < 0.001 |
| | 2007~2019 | -8.8*(-9.2~-8.5) | < 0.001 |
| Jiangxi | 2000~2004 | -19.0*(-19.8~-18.2) | < 0.001 |
| | 2004~2007 | -15.9*(-18.5~-13.2) | < 0.001 |
| | 2007~2014 | -10.3*(-10.8~-9.8) | < 0.001 |
| Jilin | 2014~2019 | -8.6*(-9.2~-7.9) | < 0.001 |
| | 2000~2006 | -12.3*(-13~-11.7) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------|-----------|-----------------------------------|----------|
| Liaoning | 2006~2019 | -7.9*(-8.1~-7.7) | < 0.001 |
| | 2000~2008 | -9.8*(-10.1~-9.6) | < 0.001 |
| | 2008~2014 | -8.0*(-8.6~-7.5) | < 0.001 |
| | 2014~2017 | -6.8*(-9.2~-4.3) | < 0.001 |
| Macao | 2017~2019 | -10.7*(-13~-8.4) | < 0.001 |
| | 2000~2003 | -7.0*(-10.8~-3.1) | 0.002 |
| | 2003~2007 | 1(-3.1~5.3) | 0.6 |
| Ningxia | 2007~2019 | -10.2*(-10.7~-9.8) | < 0.001 |
| | 2000~2007 | -15.8*(-16.3~-15.4) | < 0.001 |
| | 2007~2012 | -11.2*(-12.4~-10) | < 0.001 |
| Qinghai | 2012~2019 | -7.9*(-8.4~-7.4) | < 0.001 |
| | 2000~2007 | -13.2*(-13.6~-12.8) | < 0.001 |
| | 2007~2010 | -8.1*(-11.4~-4.6) | 0.001 |
| | 2010~2017 | -6.7*(-7.3~-6.1) | < 0.001 |
| Shaanxi | 2017~2019 | -11.8*(-15.1~-8.5) | < 0.001 |
| | 2000~2002 | -15.2*(-19~-11.4) | < 0.001 |
| | 2002~2008 | -17.7*(-18.6~-16.9) | < 0.001 |
| | 2008~2012 | -14.2*(-16.1~-12.3) | < 0.001 |
| Shandong | 2012~2019 | -9.4*(-10~-8.9) | < 0.001 |
| | 2000~2005 | -16.0*(-16.9~-15) | < 0.001 |
| | 2005~2009 | -10.1*(-12.4~-7.8) | < 0.001 |
| | 2009~2017 | -7.6*(-8.2~-6.9) | < 0.001 |
| Shanghai | 2017~2019 | -10.6*(-15.1~-6) | 0.001 |
| | 2000~2004 | -11.8*(-13.8~-9.7) | < 0.001 |
| | 2004~2019 | -4.8*(-5.1~-4.5) | < 0.001 |
| Shanxi | 2000~2009 | -10.8*(-11.2~-10.4) | < 0.001 |
| | 2009~2019 | -7.3*(-7.7~-7) | < 0.001 |
| Sichuan | 2000~2005 | -15.2*(-15.9~-14.4) | < 0.001 |
| | 2005~2019 | -10.5*(-10.7~-10.3) | < 0.001 |
| Tianjin | 2000~2013 | -9.3*(-9.5~-9.1) | < 0.001 |
| | 2013~2019 | -6.7*(-7.3~-6) | < 0.001 |
| Taiwan | 2000~2011 | -1.2*(-2.2~-0.3) | 0.017 |
| | 2011~2019 | -4.4*(-5.9~-2.9) | < 0.001 |
| Xinjiang | 2000~2003 | -13.2*(-14.2~-12.1) | < 0.001 |
| | 2003~2007 | -9.9*(-11~-8.8) | < 0.001 |
| | 2007~2017 | -7.5*(-7.7~-7.3) | < 0.001 |
| | 2017~2019 | -11.5*(-13.7~-9.3) | < 0.001 |
| Xizang | 2000~2003 | -14.0*(-16~-12) | < 0.001 |
| | 2003~2008 | -10.3*(-11.6~-9) | < 0.001 |
| | 2008~2017 | -5.3*(-5.8~-4.9) | < 0.001 |
| | 2017~2019 | -12.4*(-16.4~-8.2) | < 0.001 |
| Yunnan | 2000~2004 | -17.3*(-18.3~-16.4) | < 0.001 |
| | 2004~2007 | -14.1*(-17.2~-10.9) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|---------------------|-----------|-----------------------------------|----------|
| Zhejiang | 2007~2014 | -11.0*(-11.5~-10.4) | < 0.001 |
| | 2014~2019 | -8.6*(-9.3~-7.8) | < 0.001 |
| | 2000~2007 | -14.9*(-15.5~-14.4) | < 0.001 |
| | 2007~2019 | -8.6*(-8.9~-8.4) | < 0.001 |
| Under 5 | | | |
| Anhui | 2000~2005 | -11.7*(-12.6~-10.9) | < 0.001 |
| | 2005~2016 | -10.0*(-10.3~-9.7) | < 0.001 |
| | 2016~2019 | -14.4*(-16.2~-12.6) | < 0.001 |
| Beijing | 2000~2010 | -9.9*(-10.3~-9.6) | < 0.001 |
| | 2010~2016 | -6.4*(-7.4~-5.5) | < 0.001 |
| | 2016~2019 | -10.9*(-12.9~-8.8) | < 0.001 |
| Chongqing | 2000~2007 | -12.7*(-13.2~-12.2) | < 0.001 |
| | 2007~2016 | -6.7*(-7.2~-6.3) | < 0.001 |
| | 2016~2019 | -16.0*(-17.8~-14.2) | < 0.001 |
| Fujian | 2000~2006 | -13.4*(-14~-12.8) | < 0.001 |
| | 2006~2016 | -9.1*(-9.4~-8.7) | < 0.001 |
| | 2016~2019 | -13.4*(-15.3~-11.5) | < 0.001 |
| Gansu | 2000~2005 | -11.9*(-12.8~-11) | < 0.001 |
| | 2005~2016 | -9.6*(-10~-9.3) | < 0.001 |
| | 2016~2019 | -14.8*(-16.8~-12.9) | < 0.001 |
| Guangdong | 2000~2005 | -10.0*(-10.8~-9.2) | < 0.001 |
| | 2005~2011 | -12.3*(-13~-11.5) | < 0.001 |
| | 2011~2016 | -8.7*(-9.8~-7.6) | < 0.001 |
| | 2016~2019 | -11.6*(-13.3~-9.8) | < 0.001 |
| Guangxi | 2000~2011 | -12.3*(-12.6~-12.1) | < 0.001 |
| | 2011~2016 | -8.8*(-9.9~-7.8) | < 0.001 |
| | 2016~2019 | -12.7*(-14.3~-11) | < 0.001 |
| Guizhou | 2000~2011 | -13.5*(-13.8~-13.3) | < 0.001 |
| | 2011~2016 | -9.2*(-10.5~-8) | < 0.001 |
| | 2016~2019 | -14.2*(-16~-12.3) | < 0.001 |
| Hainan | 2000~2004 | -8.1*(-9.4~-6.9) | < 0.001 |
| | 2004~2013 | -10.3*(-10.7~-9.8) | < 0.001 |
| | 2013~2016 | -7.4*(-11.3~-3.3) | 0.003 |
| | 2016~2019 | -14.2*(-16~-12.3) | < 0.001 |
| Hebei | 2000~2008 | -10.9*(-11.3~-10.6) | < 0.001 |
| | 2008~2016 | -8.4*(-8.8~-7.9) | < 0.001 |
| | 2016~2019 | -12.2*(-13.9~-10.5) | < 0.001 |
| Heilongjiang | 2000~2007 | -10.7*(-11.1~-10.3) | < 0.001 |
| | 2007~2013 | -6.8*(-7.5~-6.1) | < 0.001 |
| | 2013~2016 | -3.8*(-7~-0.4) | 0.034 |
| | 2016~2019 | -11.8*(-13.3~-10.2) | < 0.001 |
| Henan | 2000~2004 | -17.1*(-18.2~-16) | < 0.001 |
| | 2004~2008 | -12.9*(-14.8~-11.1) | < 0.001 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------------|-----------|-----------------------------------|----------|
| Hong Kong | 2008~2016 | -7.8*(-8.3~-7.2) | < 0.001 |
| | 2016~2019 | -13.4*(-15.2~-11.5) | < 0.001 |
| | 2000~2009 | -0.7(-2.4~0.9) | 0.356 |
| | 2009~2019 | -10.4*(-11.6~-9.1) | < 0.001 |
| Hubei | 2000~2006 | -12.0*(-12.7~-11.4) | < 0.001 |
| | 2006~2016 | -8.6*(-9~-8.3) | < 0.001 |
| Hunan | 2016~2019 | -14.4*(-16.3~-12.5) | < 0.001 |
| | 2000~2005 | -17.2*(-18.1~-16.3) | < 0.001 |
| | 2005~2010 | -11.7*(-13.1~-10.3) | < 0.001 |
| | 2010~2016 | -9.0*(-10~-8) | < 0.001 |
| Inner Mongolia | 2016~2019 | -14.0*(-16.1~-11.8) | < 0.001 |
| | 2000~2003 | -13.6*(-15.2~-12) | < 0.001 |
| | 2003~2009 | -10.6*(-11.3~-9.8) | < 0.001 |
| | 2009~2016 | -6.7*(-7.3~-6.1) | < 0.001 |
| Jiangsu | 2016~2019 | -12.8*(-14.4~-11.2) | < 0.001 |
| | 2000~2007 | -14.4*(-14.9~-13.9) | < 0.001 |
| | 2007~2013 | -9.2*(-10.1~-8.3) | < 0.001 |
| | 2013~2016 | -6.1*(-10.1~-2) | 0.009 |
| Jiangxi | 2016~2019 | -13.9*(-15.8~-12) | < 0.001 |
| | 2000~2006 | -15.5*(-16.1~-14.9) | < 0.001 |
| | 2006~2016 | -9.2*(-9.5~-8.8) | < 0.001 |
| Jilin | 2016~2019 | -13.4*(-15.2~-11.6) | < 0.001 |
| | 2000~2006 | -11.5*(-11.8~-11.2) | < 0.001 |
| | 2006~2013 | -9.2*(-9.5~-8.9) | < 0.001 |
| | 2013~2016 | -6.1*(-7.9~-4.2) | < 0.001 |
| Liaoning | 2016~2019 | -12.0*(-12.8~-11.1) | < 0.001 |
| | 2000~2011 | -9.8*(-10~-9.6) | < 0.001 |
| | 2011~2016 | -6.9*(-8~-5.9) | < 0.001 |
| Macao | 2016~2019 | -11.8*(-13.4~-10.2) | < 0.001 |
| | 2000~2003 | -5.3(-10.8~0.5) | 0.07 |
| | 2003~2006 | 5.1(-6.8~18.5) | 0.373 |
| | 2006~2012 | -6.7*(-9.2~-4.2) | < 0.001 |
| Ningxia | 2012~2019 | -11.3*(-12.7~-9.9) | < 0.001 |
| | 2000~2008 | -13.3*(-13.6~-13) | < 0.001 |
| | 2008~2013 | -11.4*(-12.3~-10.5) | < 0.001 |
| | 2013~2016 | -7.6*(-10.5~-4.6) | < 0.001 |
| Qinghai | 2016~2019 | -14.1*(-15.4~-12.7) | < 0.001 |
| | 2000~2007 | -10.3*(-10.7~-9.8) | < 0.001 |
| | 2007~2010 | -7.6*(-11.1~-4) | 0.001 |
| | 2010~2016 | -4.9*(-5.7~-4.1) | < 0.001 |
| Shaanxi | 2016~2019 | -14.8*(-16.4~-13.1) | < 0.001 |
| | 2000~2013 | -14.0*(-14.2~-13.7) | < 0.001 |
| | 2013~2016 | -8.5*(-13.3~-3.3) | 0.004 |

| Provinces | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------|-----------|-----------------------------------|----------|
| Shandong | 2016~2019 | -14.7*(-17~-12.3) | < 0.001 |
| | 2000~2006 | -13.7*(-14.6~-12.9) | < 0.001 |
| | 2006~2017 | -7.8*(-8.3~-7.4) | < 0.001 |
| Shanghai | 2017~2019 | -14.6*(-19.5~-9.3) | < 0.001 |
| | 2000~2004 | -9.4*(-11~-7.7) | < 0.001 |
| | 2004~2017 | -5.1*(-5.4~-4.8) | < 0.001 |
| Shanxi | 2017~2019 | -12.4*(-17.4~-7.1) | < 0.001 |
| | 2000~2011 | -8.9*(-9.2~-8.6) | < 0.001 |
| | 2011~2016 | -5.3*(-6.6~-4) | < 0.001 |
| Sichuan | 2016~2019 | -13.2*(-15~-11.3) | < 0.001 |
| | 2000~2004 | -13.4*(-14.6~-12.1) | < 0.001 |
| | 2004~2016 | -9.2*(-9.5~-8.9) | < 0.001 |
| Tianjin | 2016~2019 | -14.0*(-15.9~-12) | < 0.001 |
| | 2000~2011 | -8.3*(-8.5~-8.1) | < 0.001 |
| | 2011~2016 | -5.0*(-6~-4) | < 0.001 |
| Taiwan | 2016~2019 | -10.1*(-11.6~-8.6) | < 0.001 |
| | 2000~2003 | -4.9(-12.3~3.1) | 0.199 |
| | 2003~2012 | 1.9*(0.1~3.8) | 0.036 |
| Xinjiang | 2012~2019 | -4.3*(-6.3~-2.2) | 0.001 |
| | 2000~2003 | -8.6*(-10.3~-6.9) | < 0.001 |
| | 2003~2016 | -4.8*(-5.1~-4.6) | < 0.001 |
| Xizang | 2016~2019 | -14.4*(-16~-12.8) | < 0.001 |
| | 2000~2010 | -9.2*(-9.6~-8.9) | < 0.001 |
| | 2010~2016 | -2.3*(-3.3~-1.3) | < 0.001 |
| Yunnan | 2016~2019 | -12.4*(-14.3~-10.4) | < 0.001 |
| | 2000~2005 | -13.6*(-14.9~-12.3) | < 0.001 |
| | 2005~2017 | -9.9*(-10.3~-9.4) | < 0.001 |
| Zhejiang | 2017~2019 | -13.7*(-19.3~-7.7) | < 0.001 |
| | 2000~2005 | -14.0*(-14.7~-13.3) | < 0.001 |
| | 2005~2010 | -11.6*(-12.6~-10.5) | < 0.001 |
| | 2010~2016 | -8.7*(-9.5~-8) | < 0.001 |
| | 2016~2019 | -13.0*(-14.6~-11.4) | < 0.001 |

CI: Confidence interval.

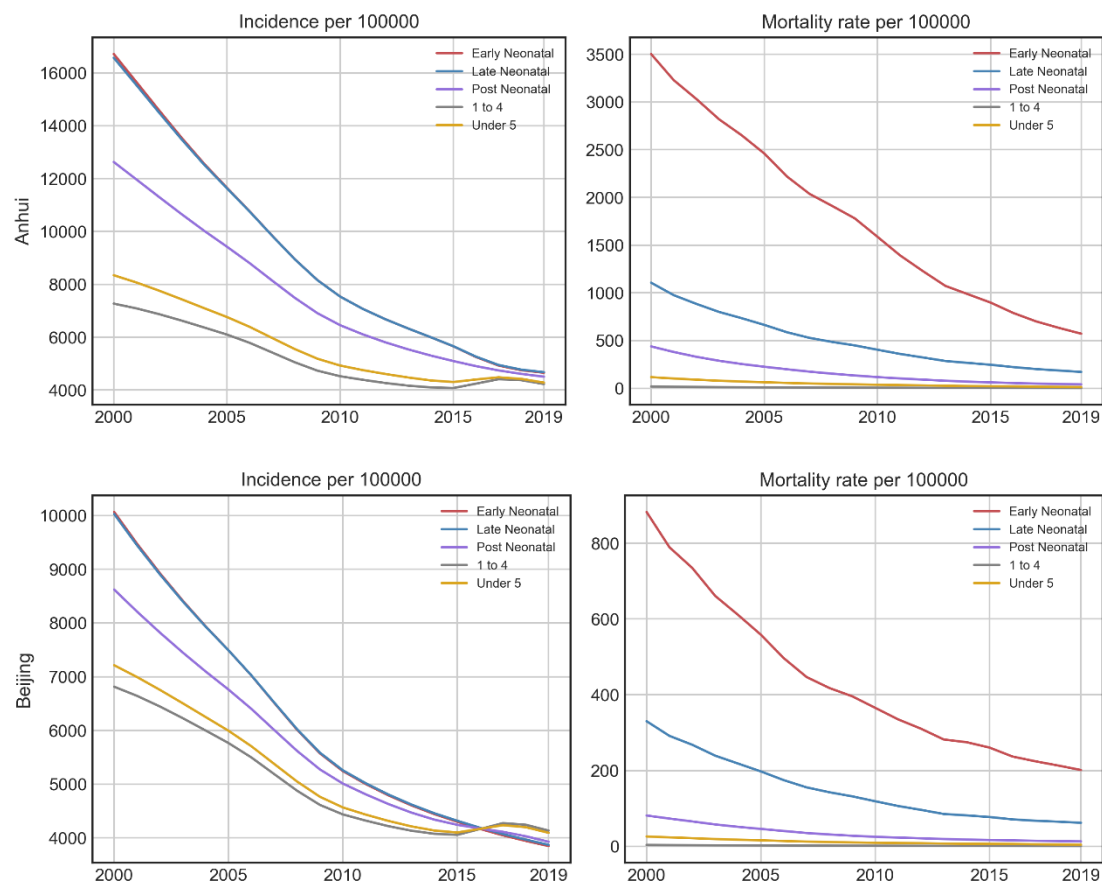
Supplement Table S5. Joinpoint analysis of notification case fatality ratio of lower respiratory infections among children under 5 years by age in China, 2000-2019.

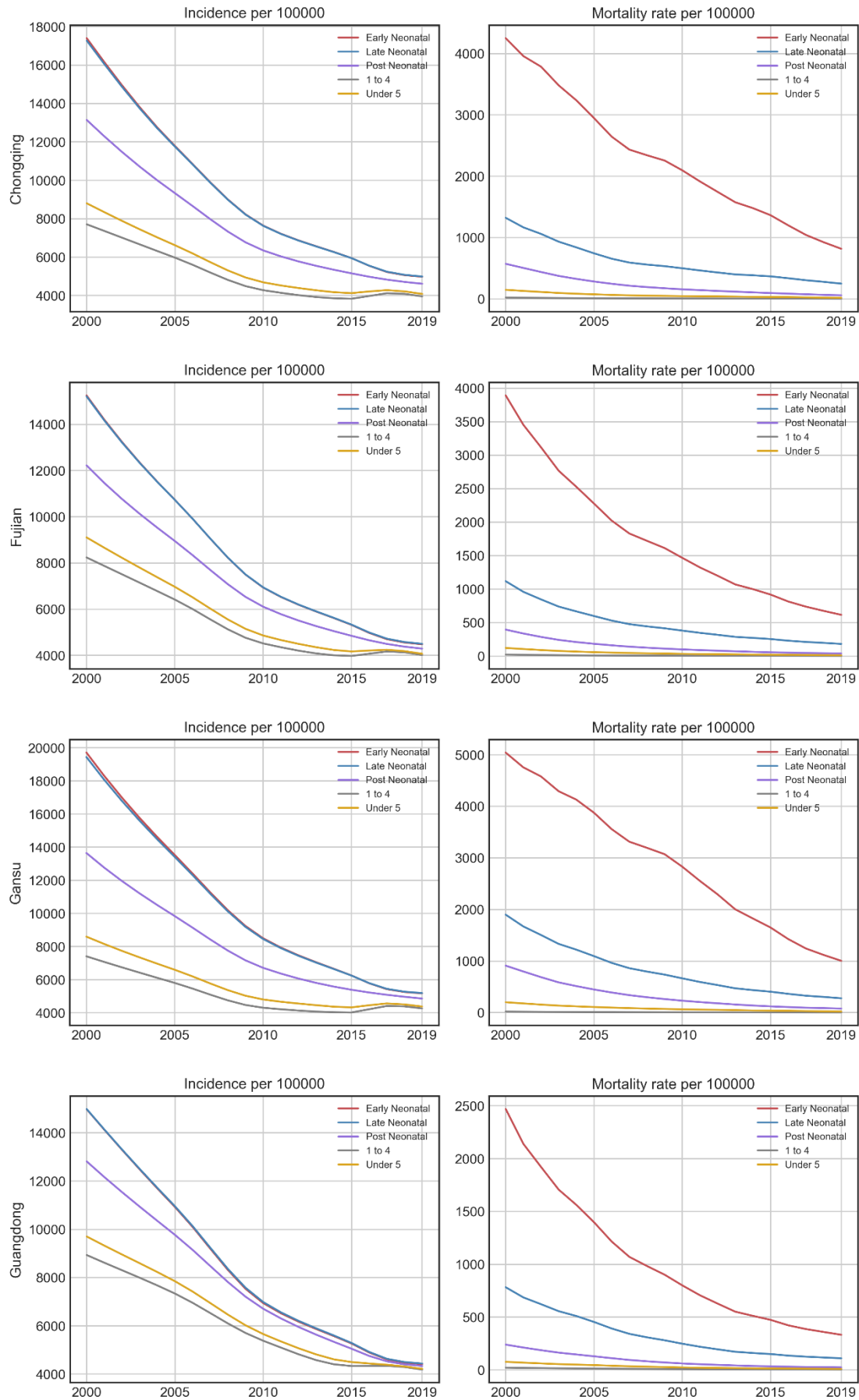
| | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|-----------------------|-----------|-----------------------------------|----------|
| Early Neonatal | | | |
| Male | 2000~2019 | -2.4*(-3.2~-1.6) | < 0.001 |
| Female | 2000~2019 | -2.0*(-2.7~-1.3) | < 0.001 |
| Total | 2000~2019 | -2.3*(-3.1~-1.5) | < 0.001 |
| Late Neonatal | | | |
| Male | 2000~2019 | -2.9*(-3.8~-2) | < 0.001 |

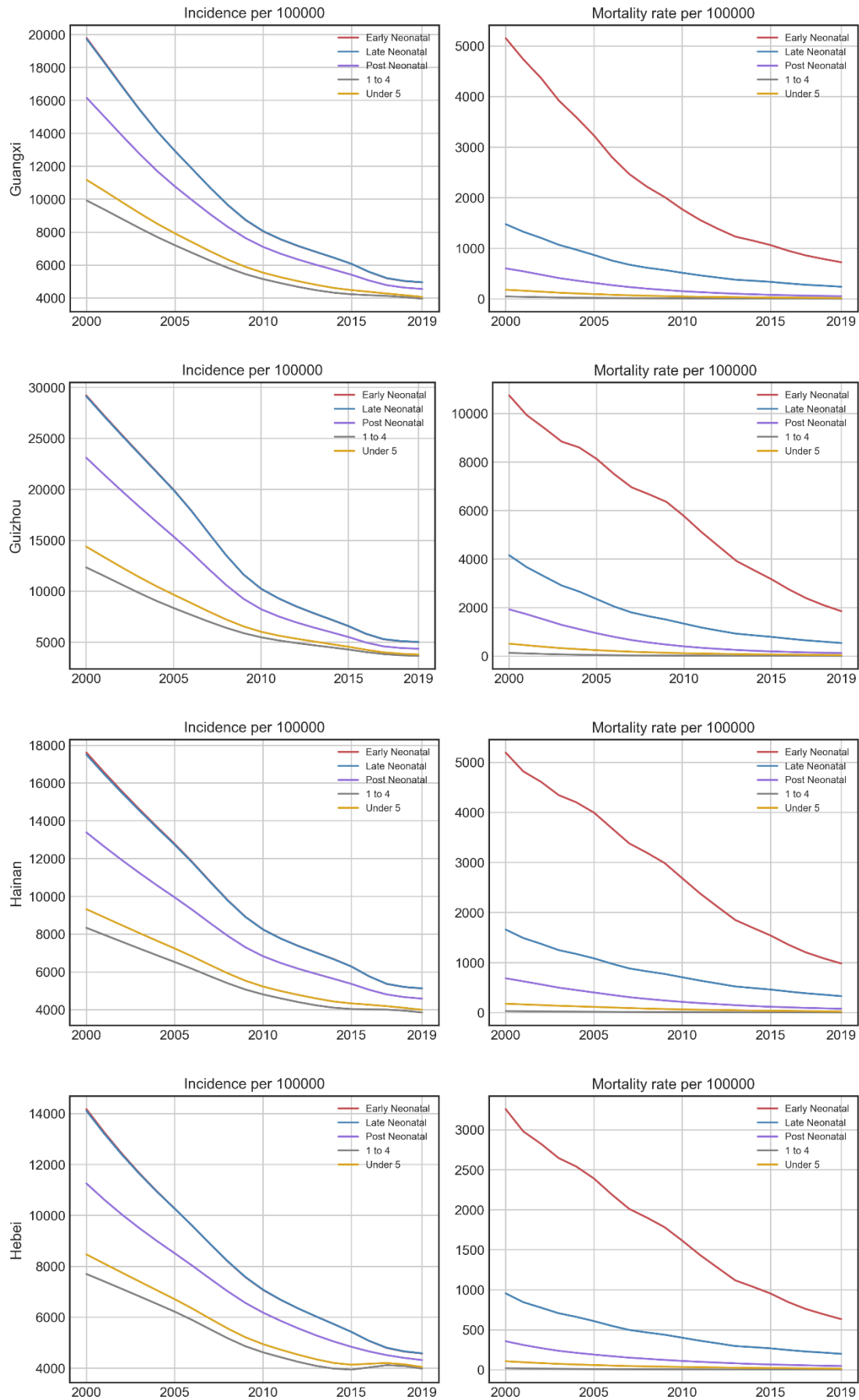
| | Years | Annual Percentage Change (95% CI) | <i>p</i> |
|----------------------|-----------|-----------------------------------|----------|
| Female | 2000~2019 | -2.5*(-3~-2) | < 0.001 |
| Total | 2000~2019 | -2.7*(-3.6~-1.7) | < 0.001 |
| Post Neonatal | | | |
| Male | 2000~2019 | -5.9*(-6.2~-5.6) | < 0.001 |
| Female | 2000~2019 | -6.3*(-6.4~-6.2) | < 0.001 |
| Total | 2000~2019 | -6.0*(-6.2~-5.8) | < 0.001 |
| 1 to 4 | | | |
| Male | 2000~2019 | -8.0*(-8.3~-7.8) | < 0.001 |
| Female | 2000~2019 | -8.8*(-9~-8.5) | < 0.001 |
| Total | 2000~2019 | -8.3*(-8.6~-8) | < 0.001 |
| Under 5 | | | |
| Male | 2000~2019 | -7.0*(-7.5~-6.5) | < 0.001 |
| Female | 2000~2019 | -7.5*(-7.9~-7.1) | < 0.001 |
| Total | 2000~2019 | -7.2*(-7.7~-6.7) | < 0.001 |

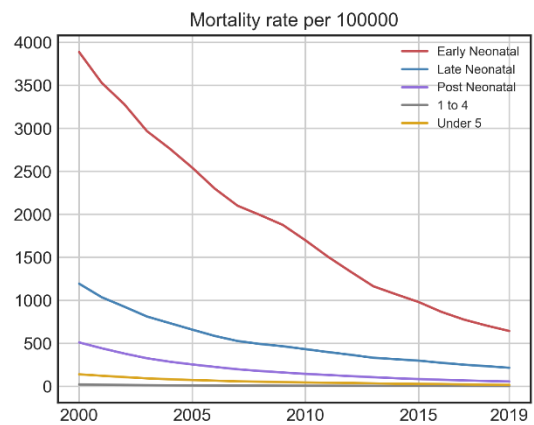
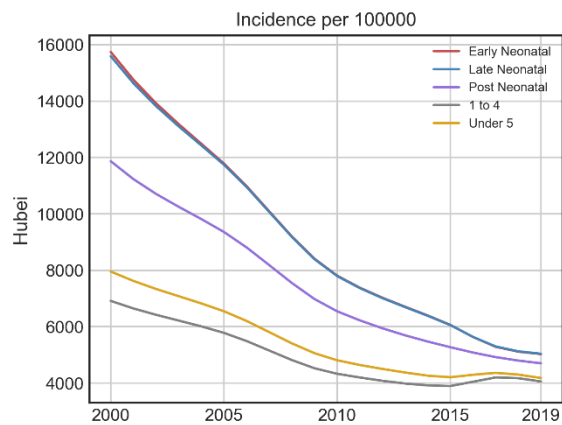
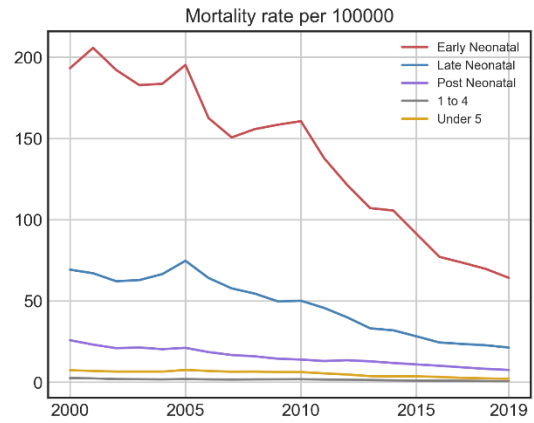
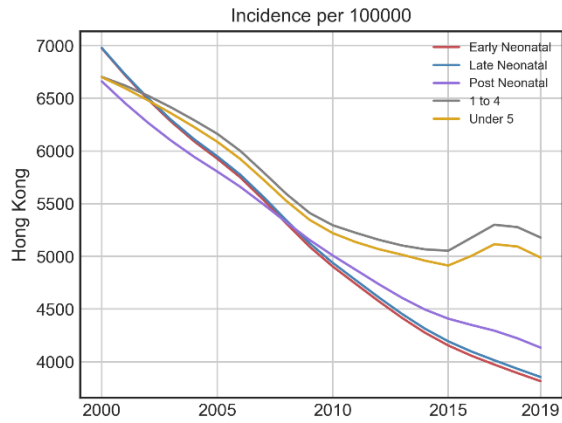
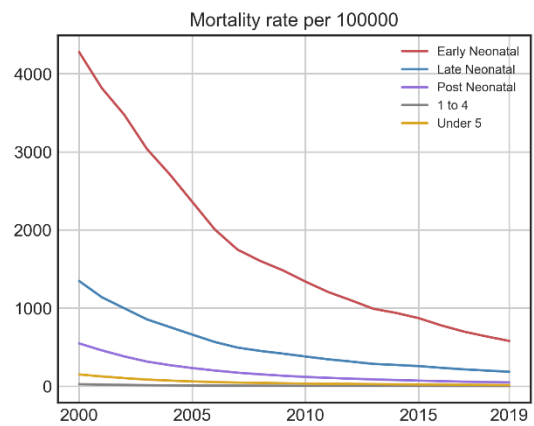
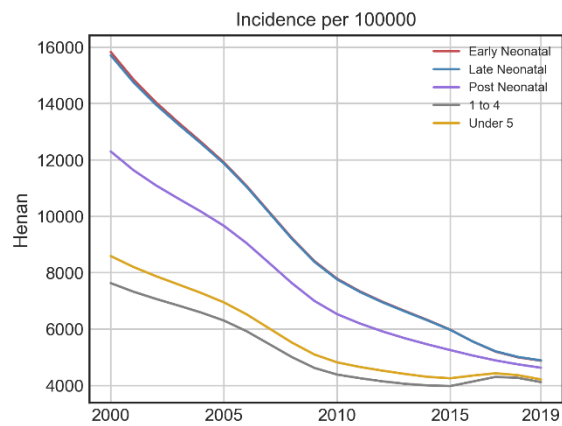
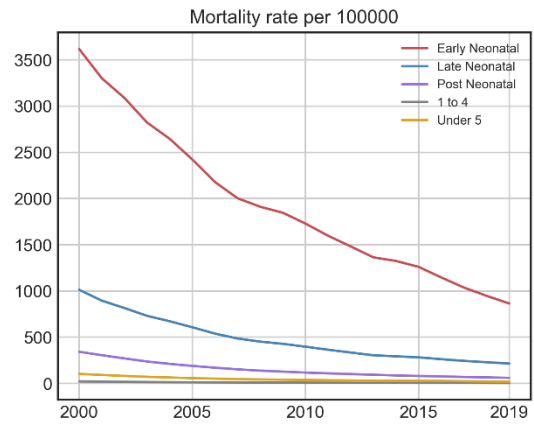
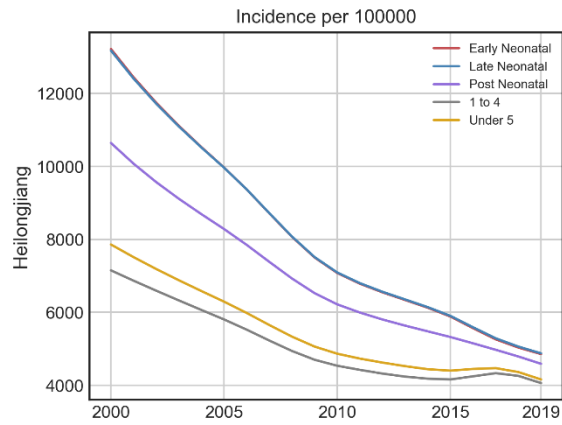
CI: Confidence interval.

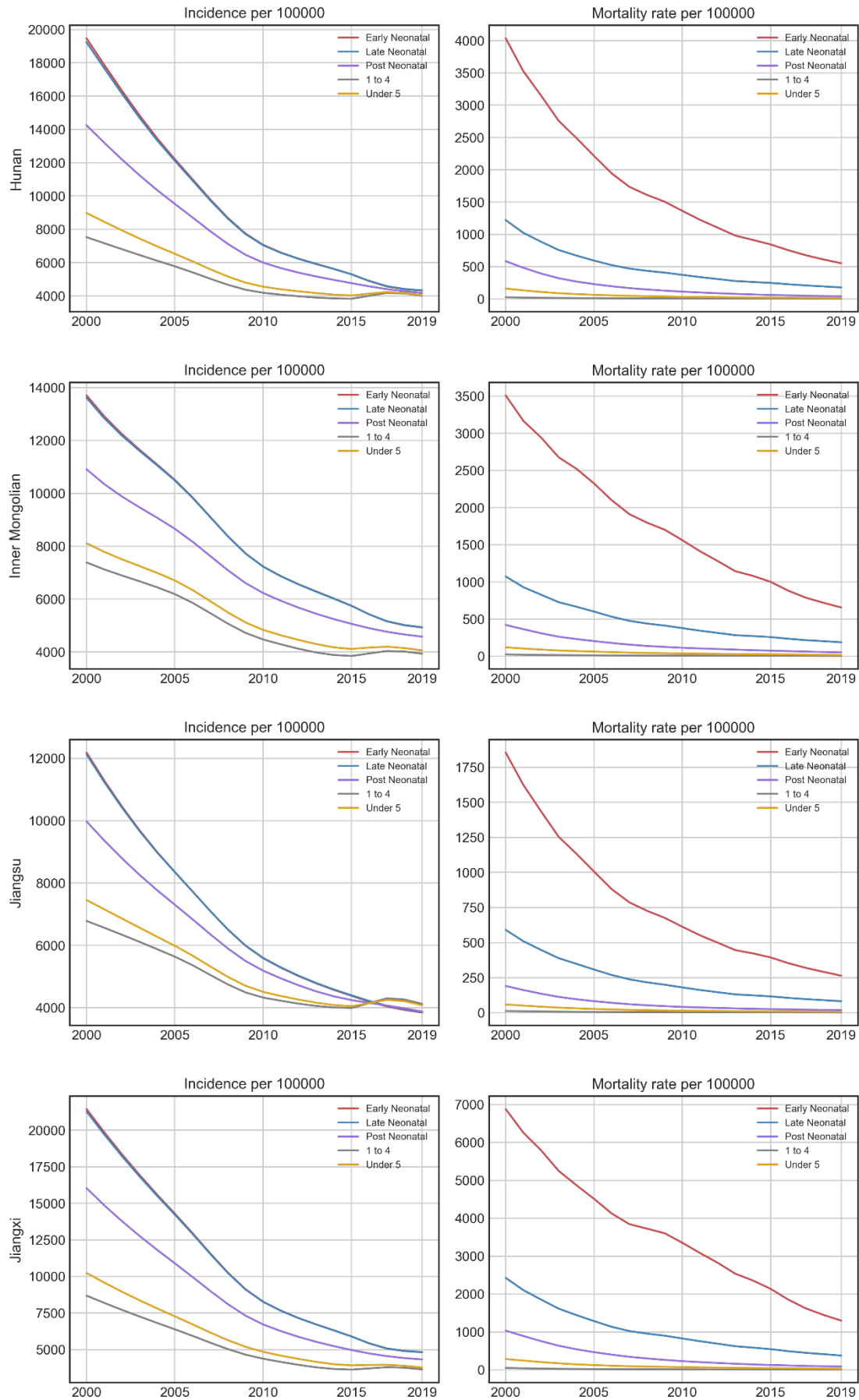
Supplement Figure S1. Trends in incidence and mortality rate of lower respiratory infections among children under 5 years by provinces in China, 2000-2019.

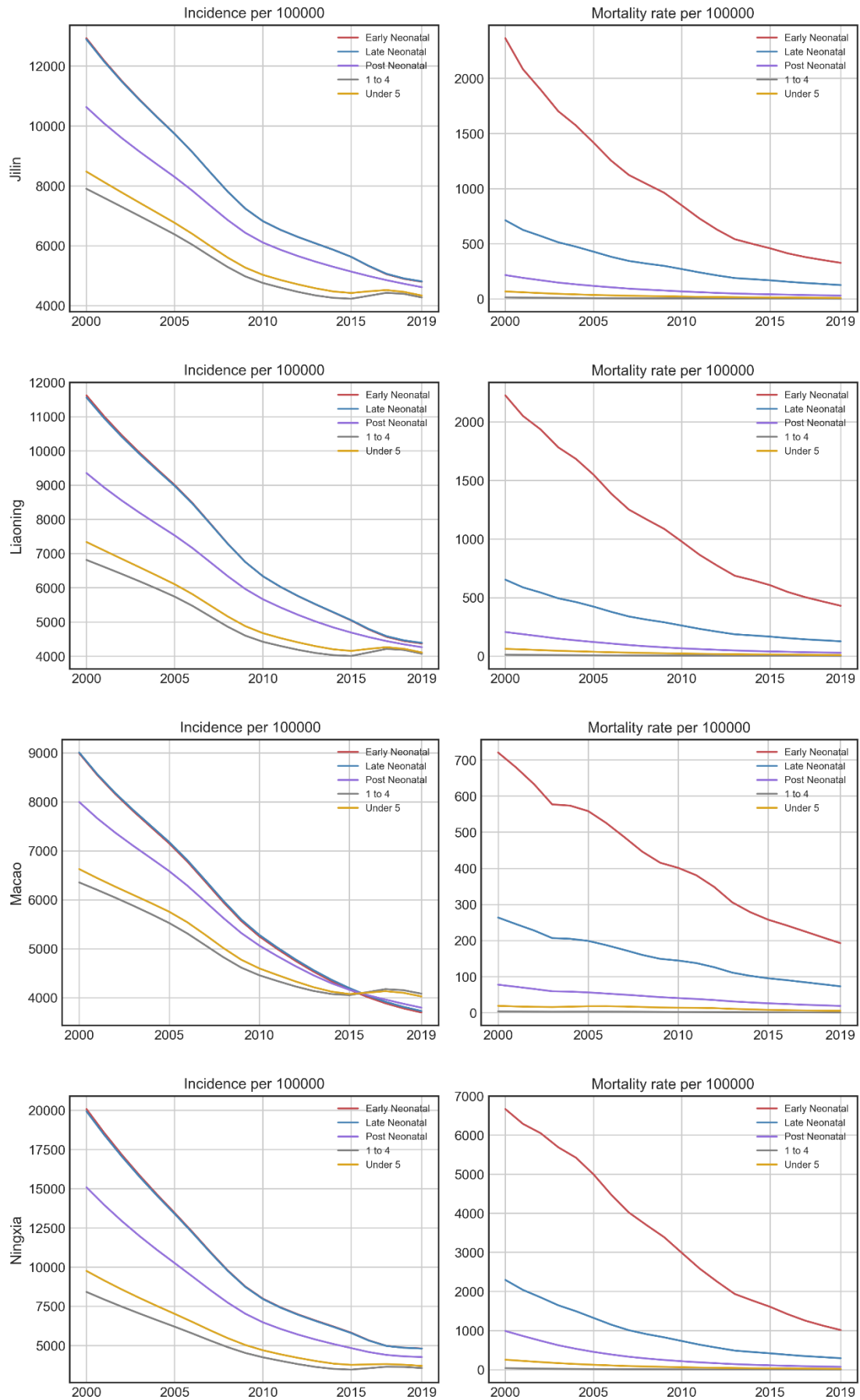


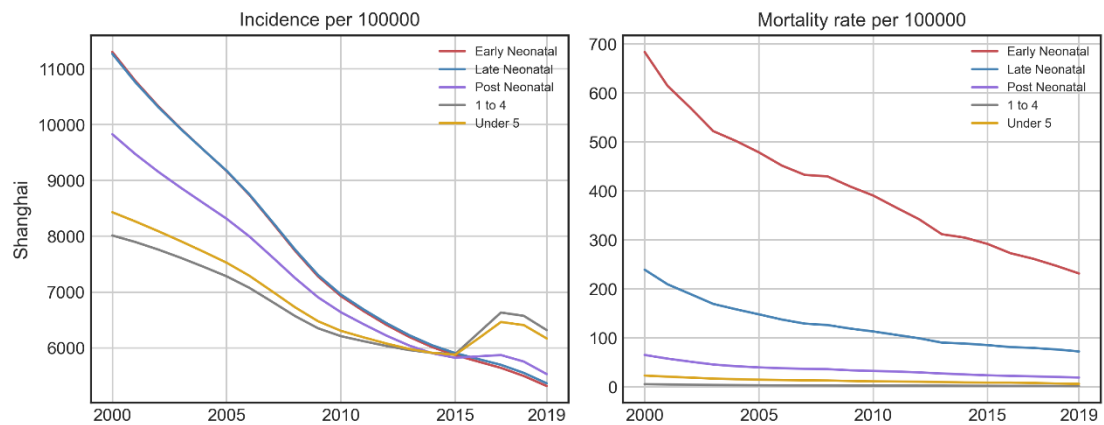
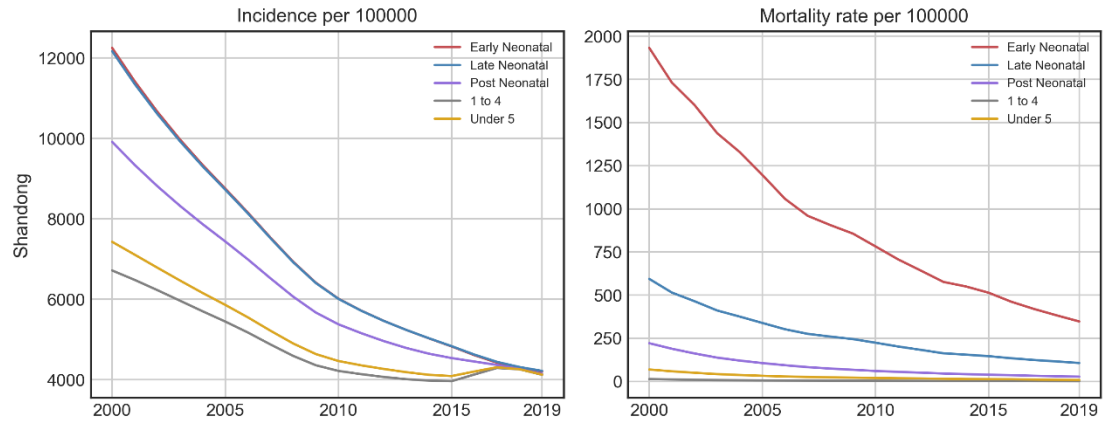
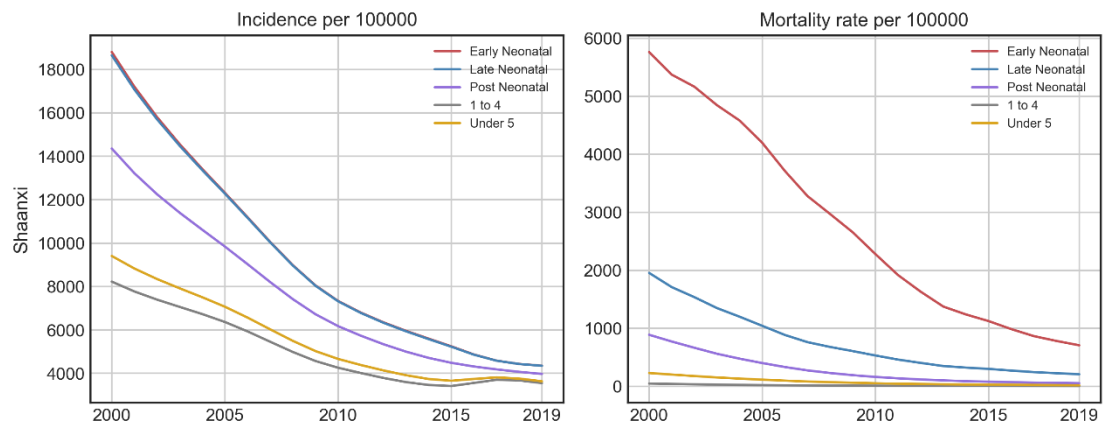
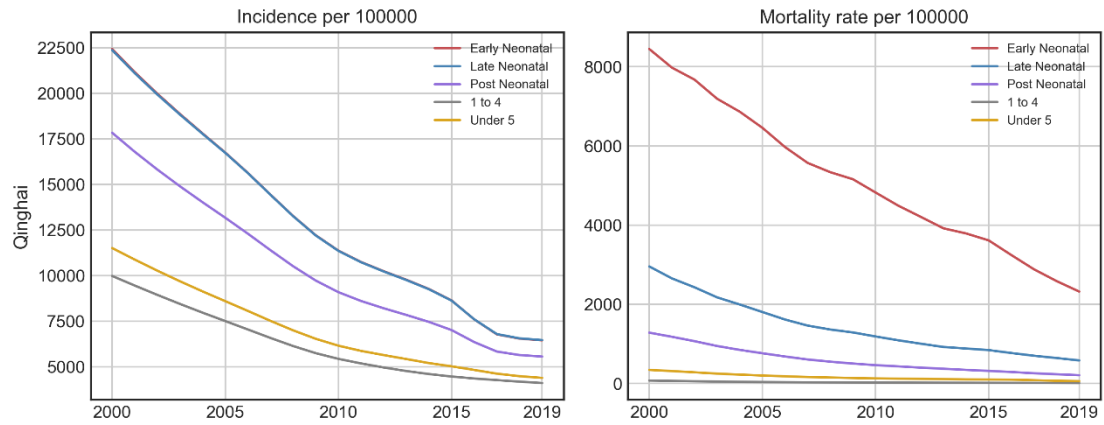


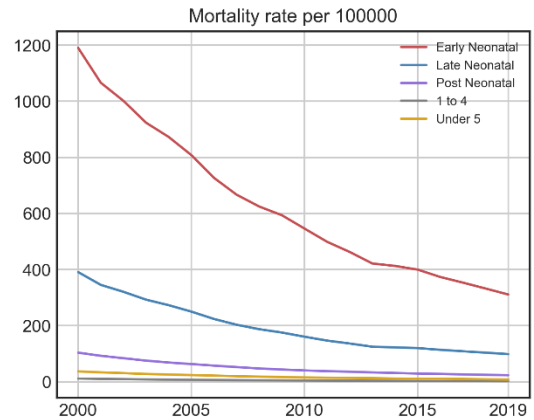
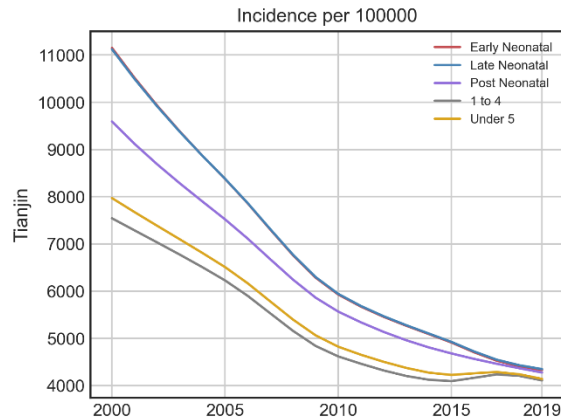
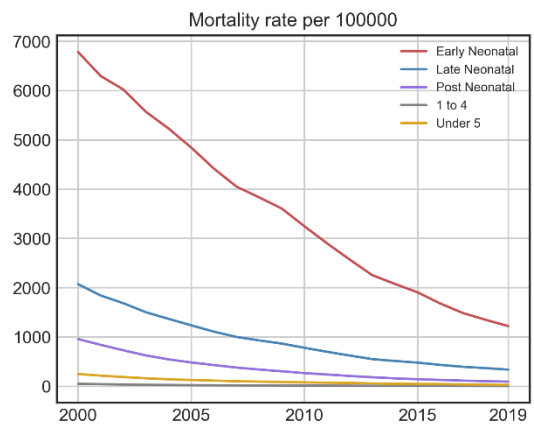
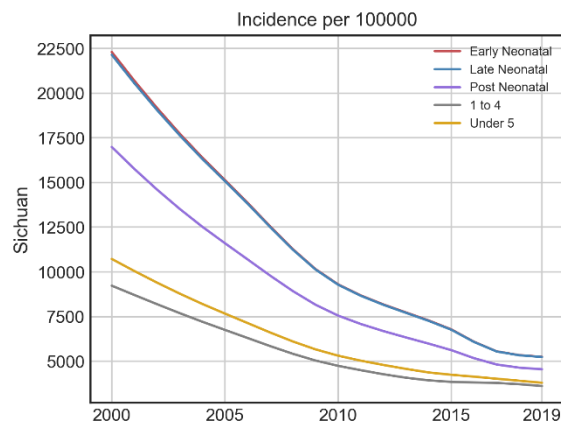
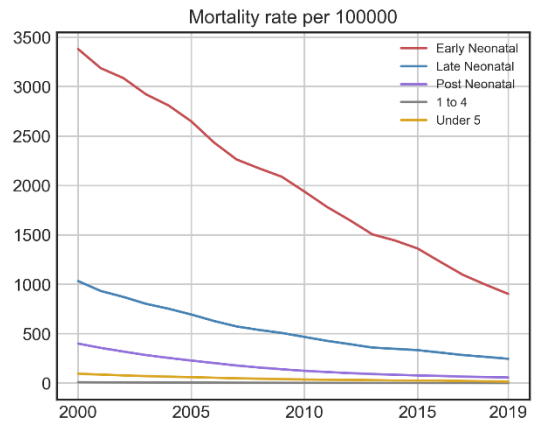
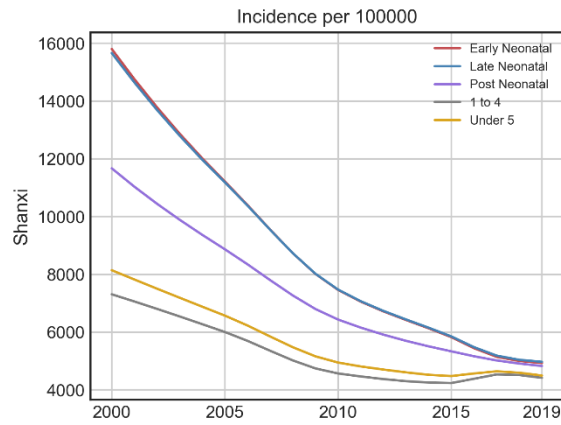


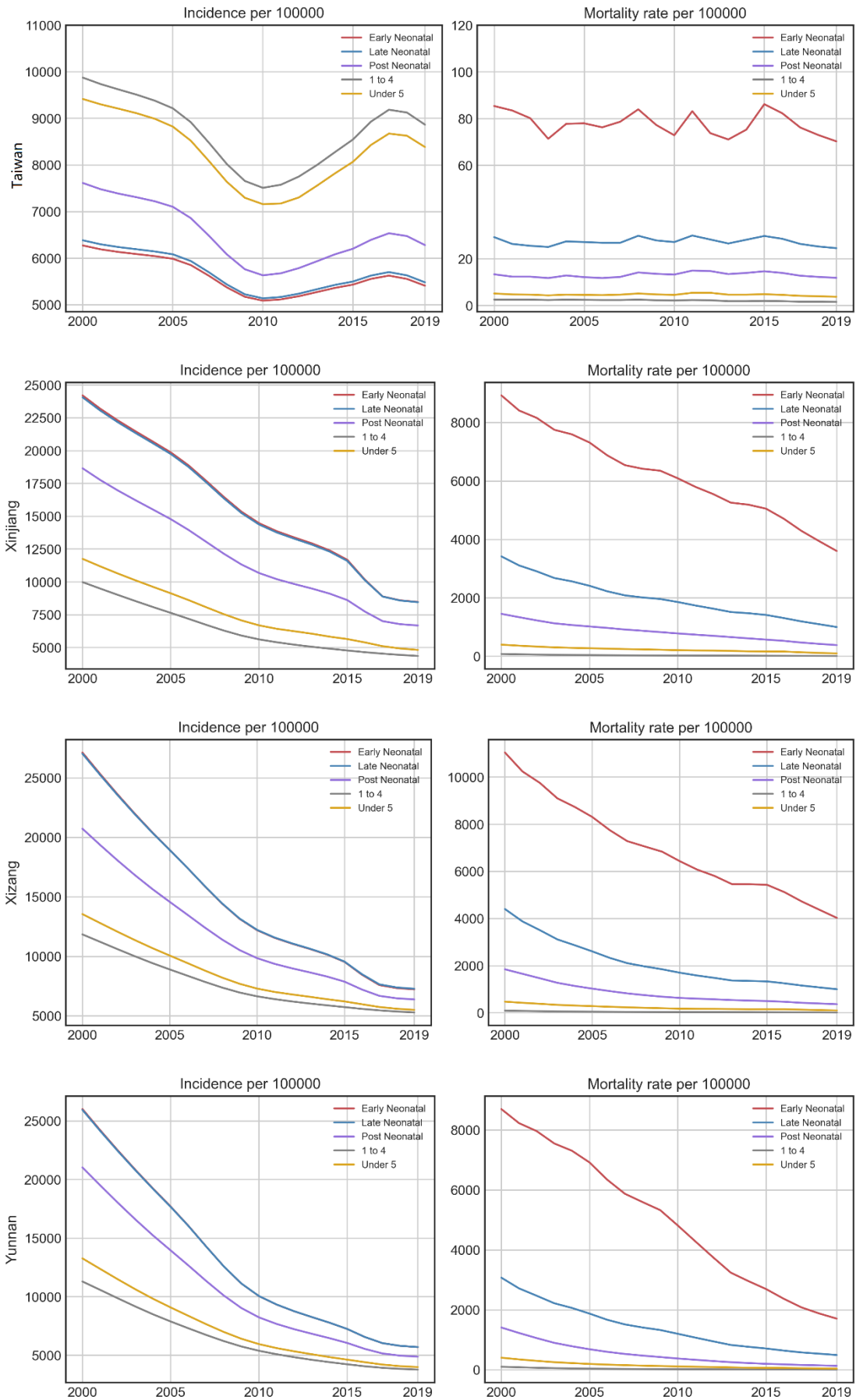


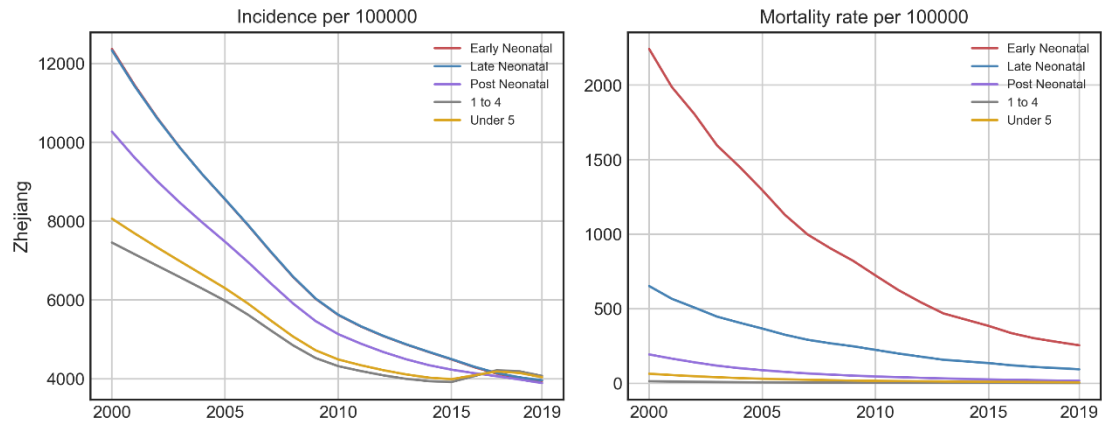




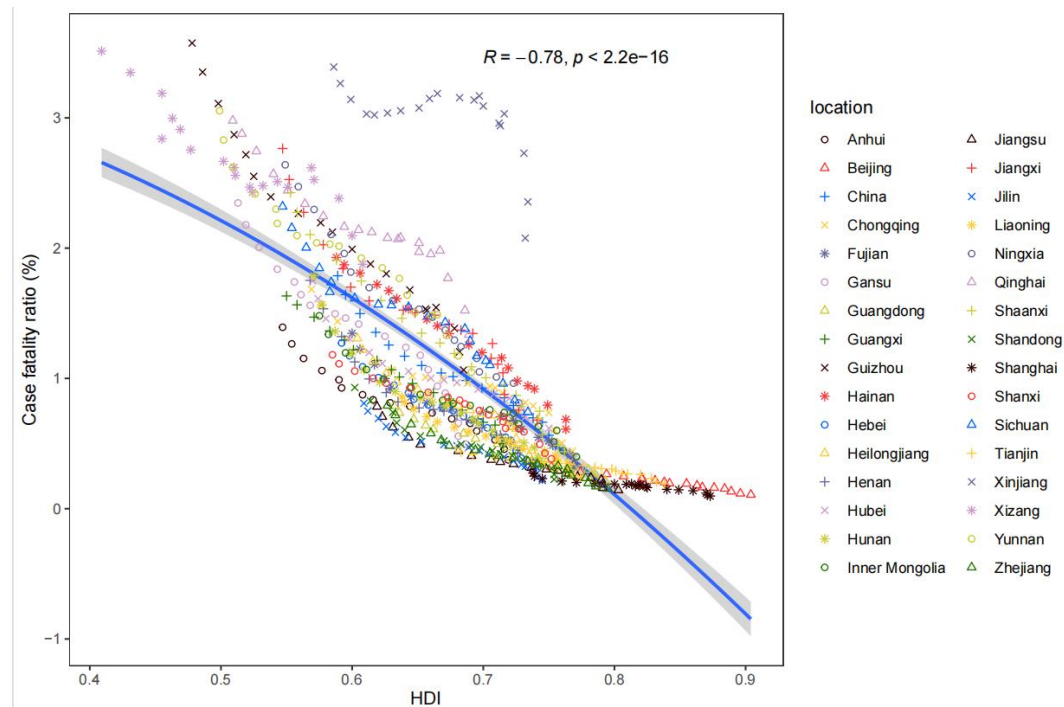








Supplement Figure S2. Association between HDI and case fatality ratio of LRT among children under 5 years of age by province in China, 2000-2019.



Supplement Figure S3. Trends in risk factors of lower respiratory infections among children under 5 years by sex and age in China, 2000-2019.

