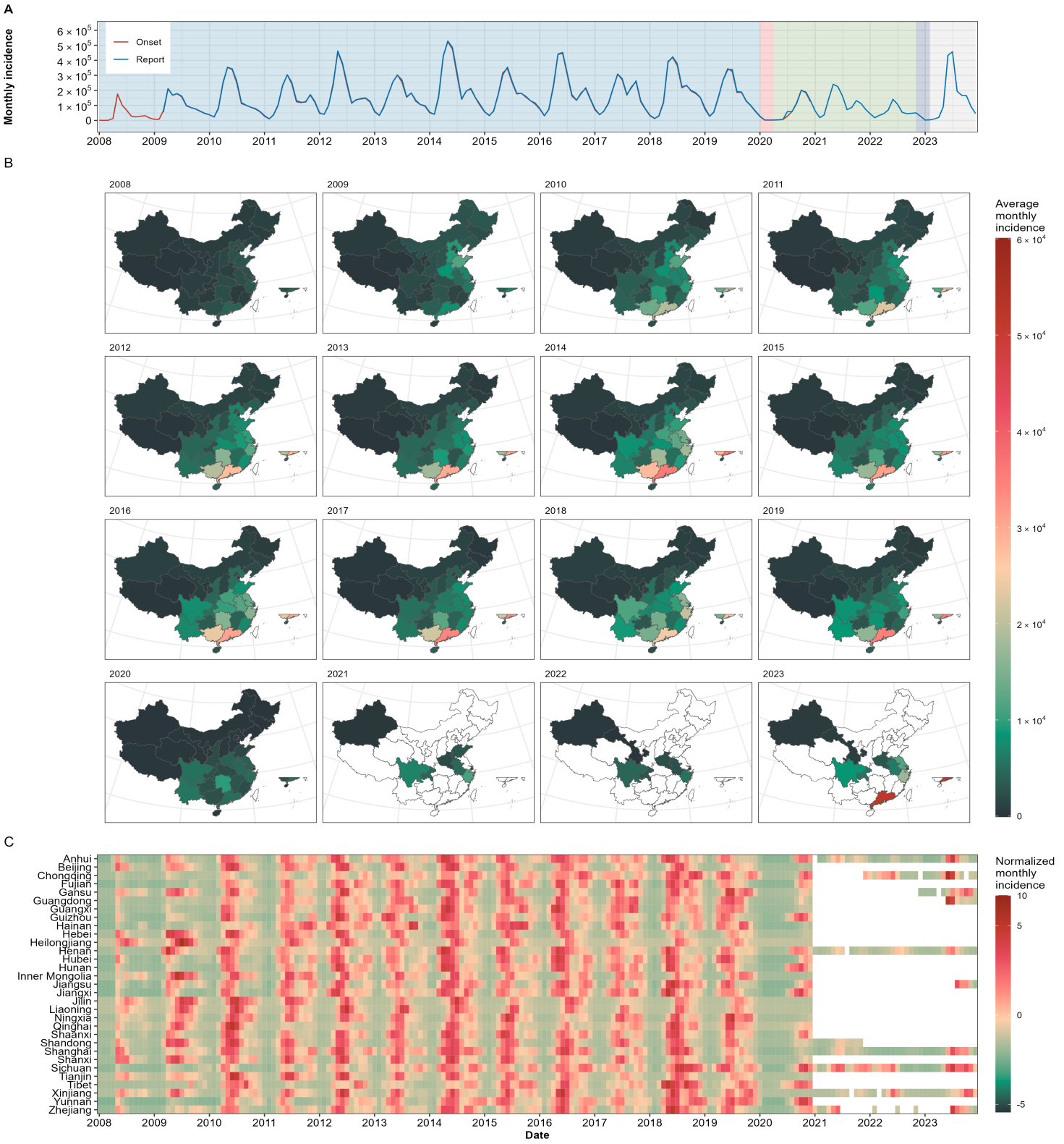
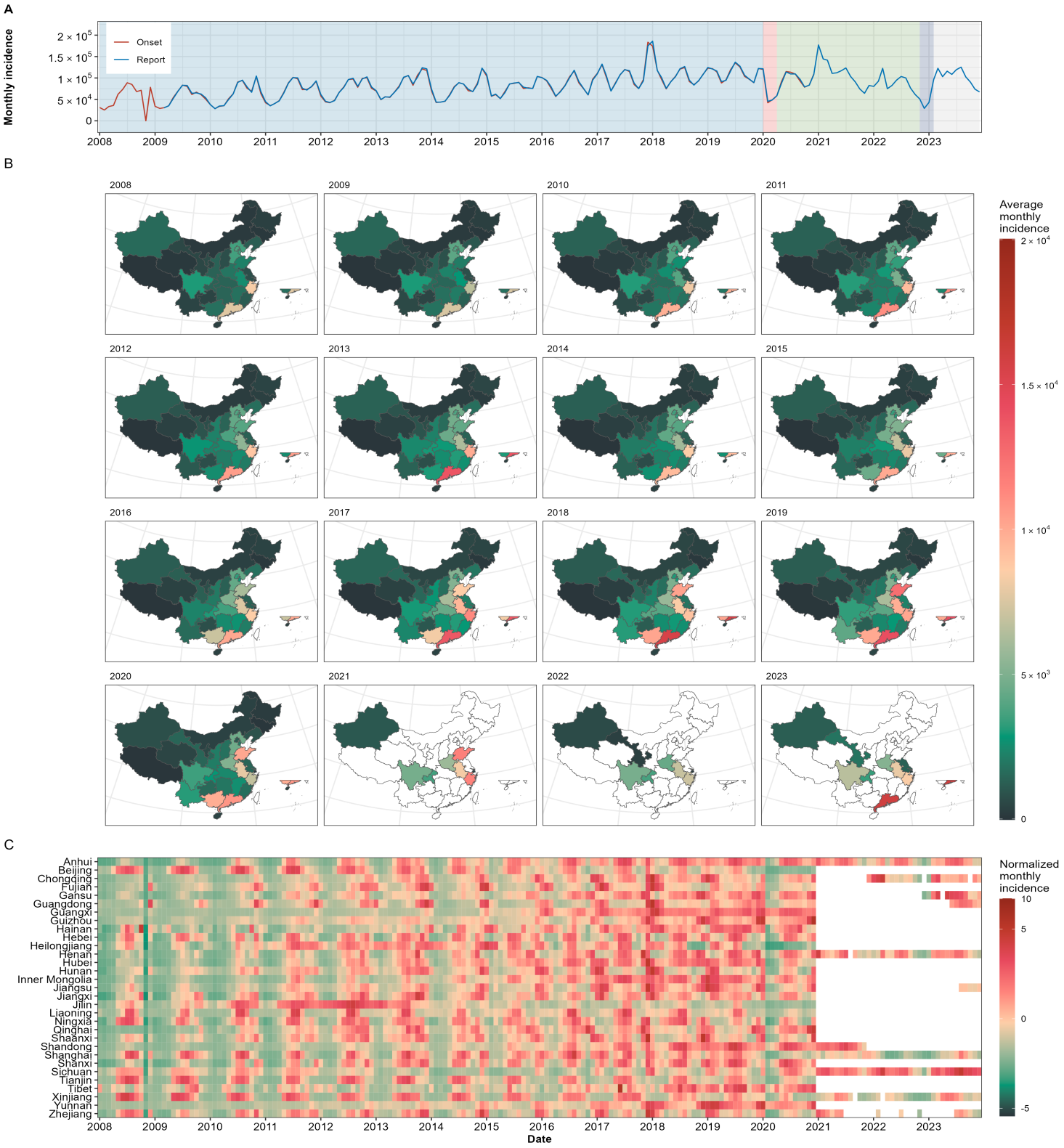
Supplementary Appendix 1:

Temporal shifts in 24 notifiable infectious diseases in China before and during the COVID-19 pandemic



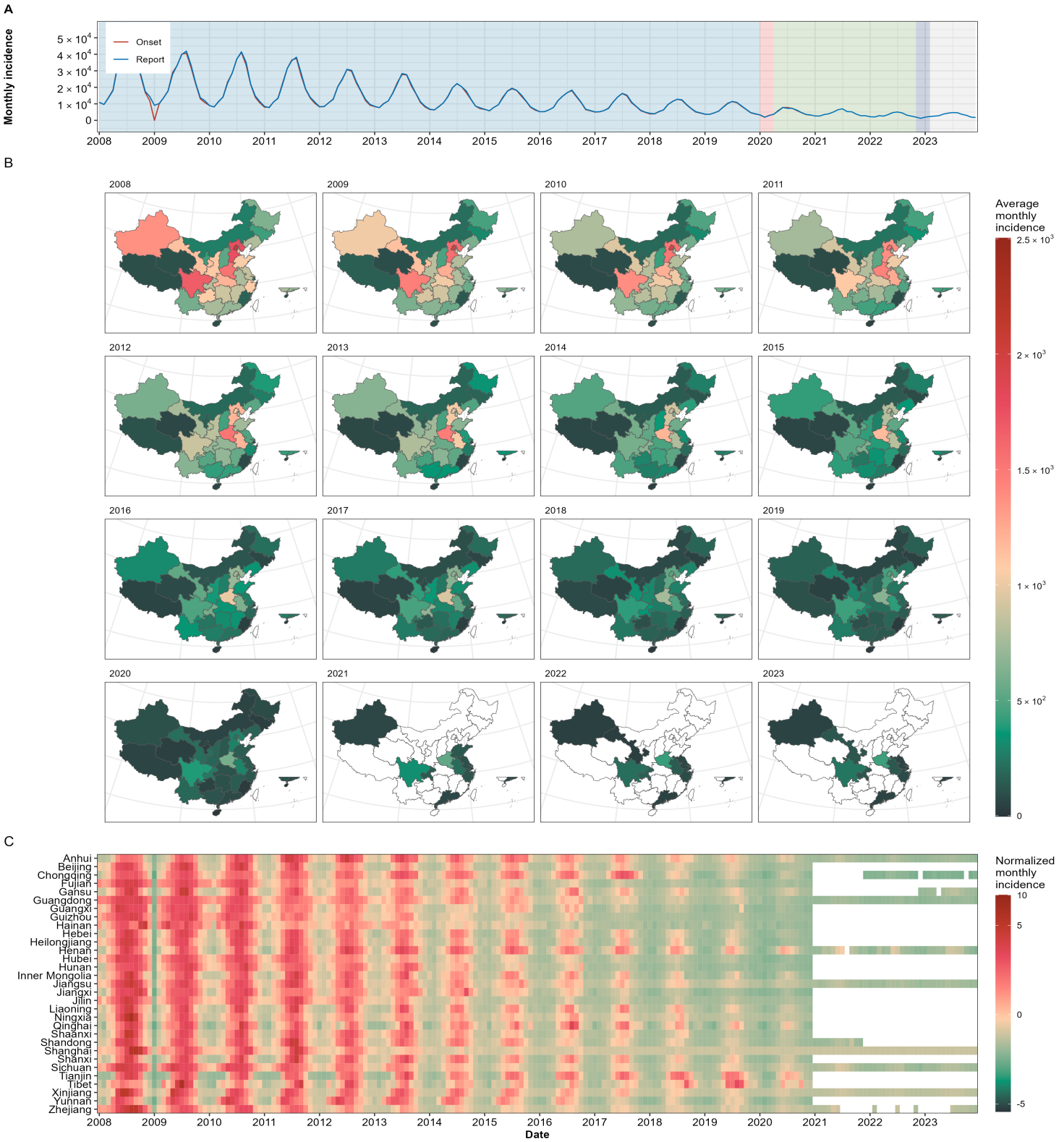
Supplementary Fig. 1. Temporal variation in monthly incidence of hand, foot, and mouth disease (HFMD) from January 2008 to December 2023 in China.

(A) The incidence of hand, foot, and mouth disease (HFMD) in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



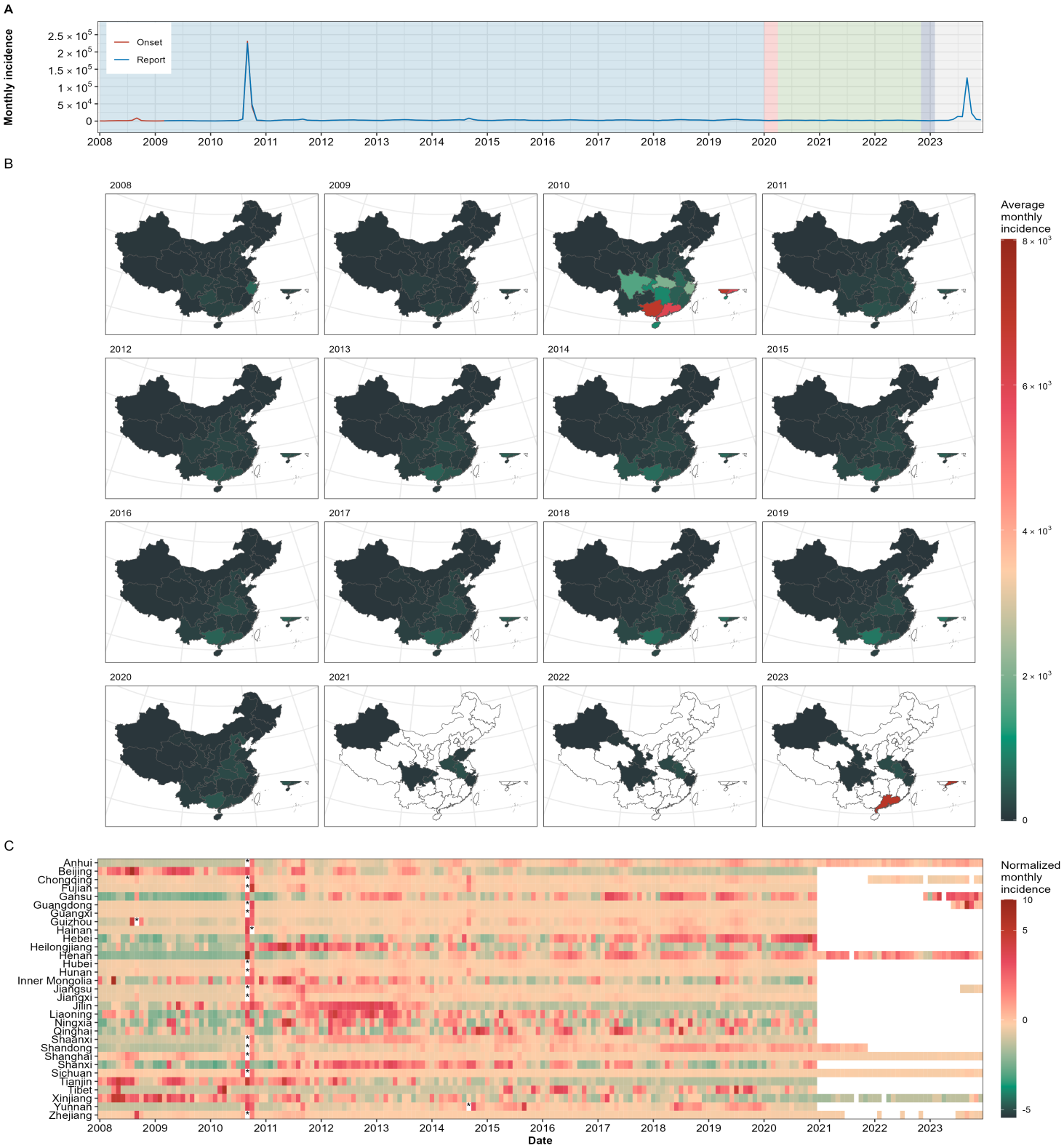
Supplementary Fig. 2. Temporal variation in monthly incidence of infectious diarrhea from January 2008 to December 2023 in China.

(A) The incidence of infectious diarrhea in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



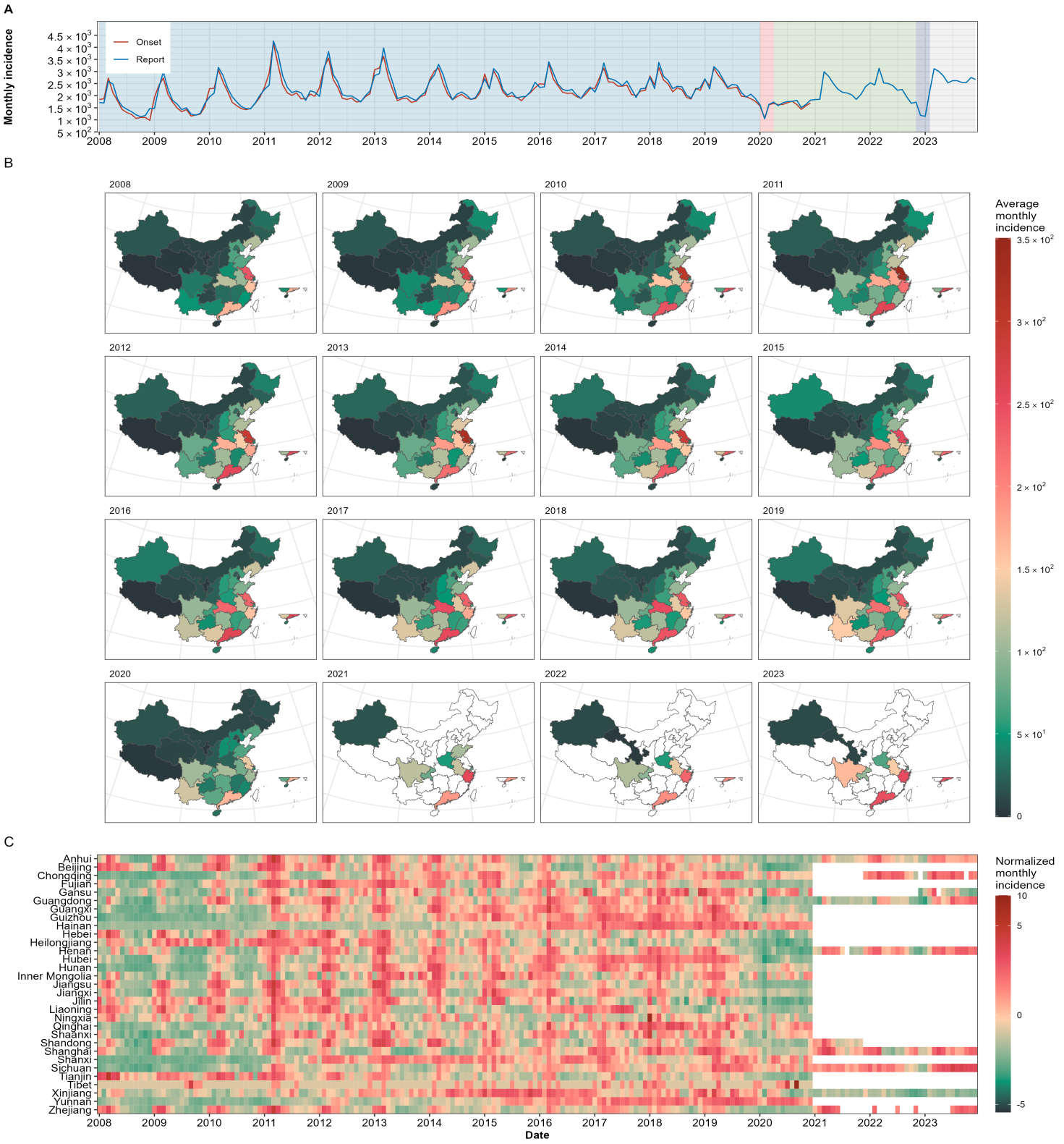
Supplementary Fig. 3. Temporal variation in monthly incidence of dysentery from January 2008 to December 2023 in China.

(A) The incidence of dysentery in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



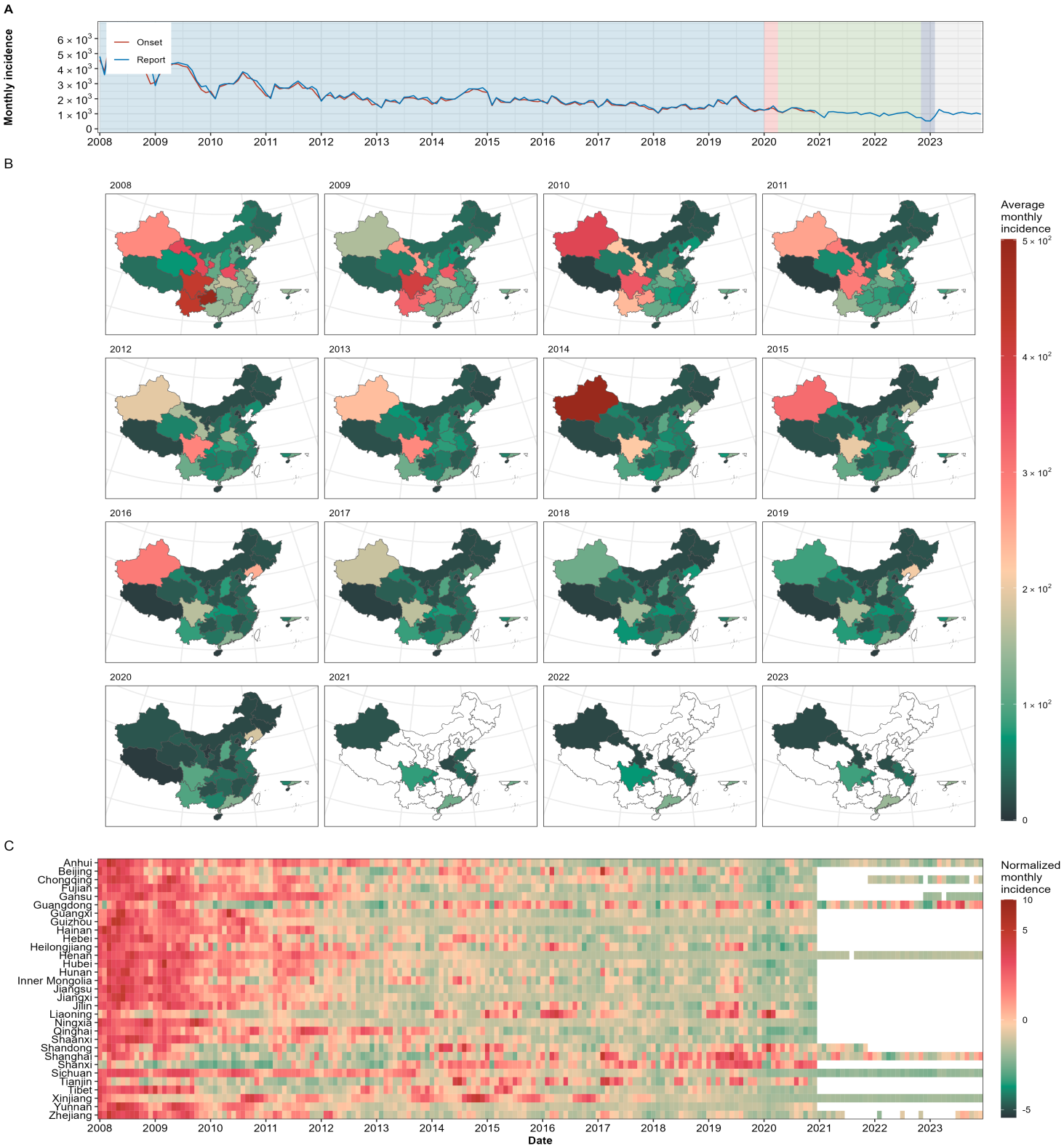
Supplementary Fig. 4. Temporal variation in monthly incidence of acute hemorrhagic conjunctivitis (AHC) from January 2008 to December 2023 in China.

(A) The incidence of acute hemorrhagic conjunctivitis (AHC) in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



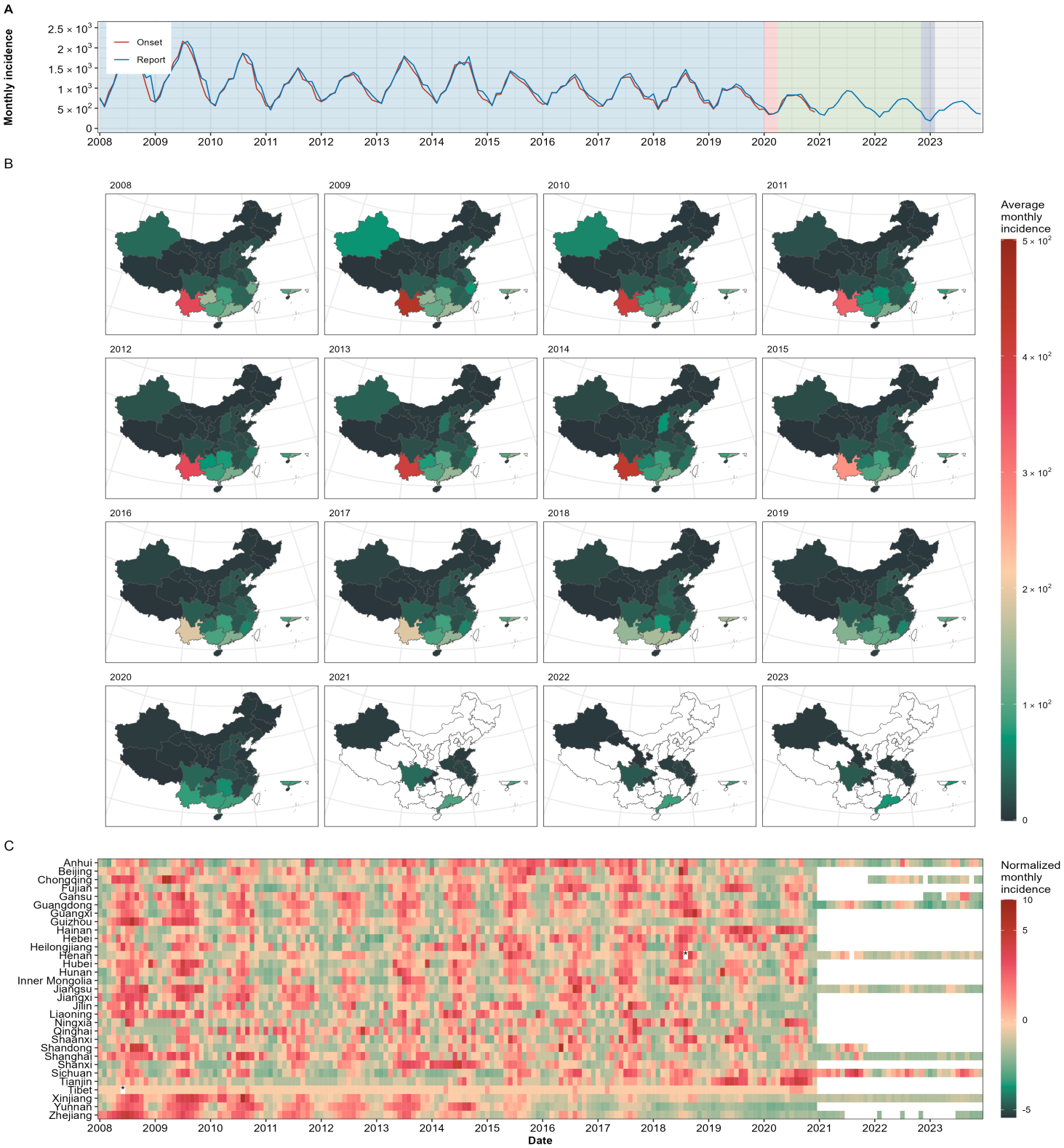
Supplementary Fig. 5. Temporal variation in monthly incidence of hepatitis E from January 2008 to December 2023 in China.

(A) The incidence of hepatitis E in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



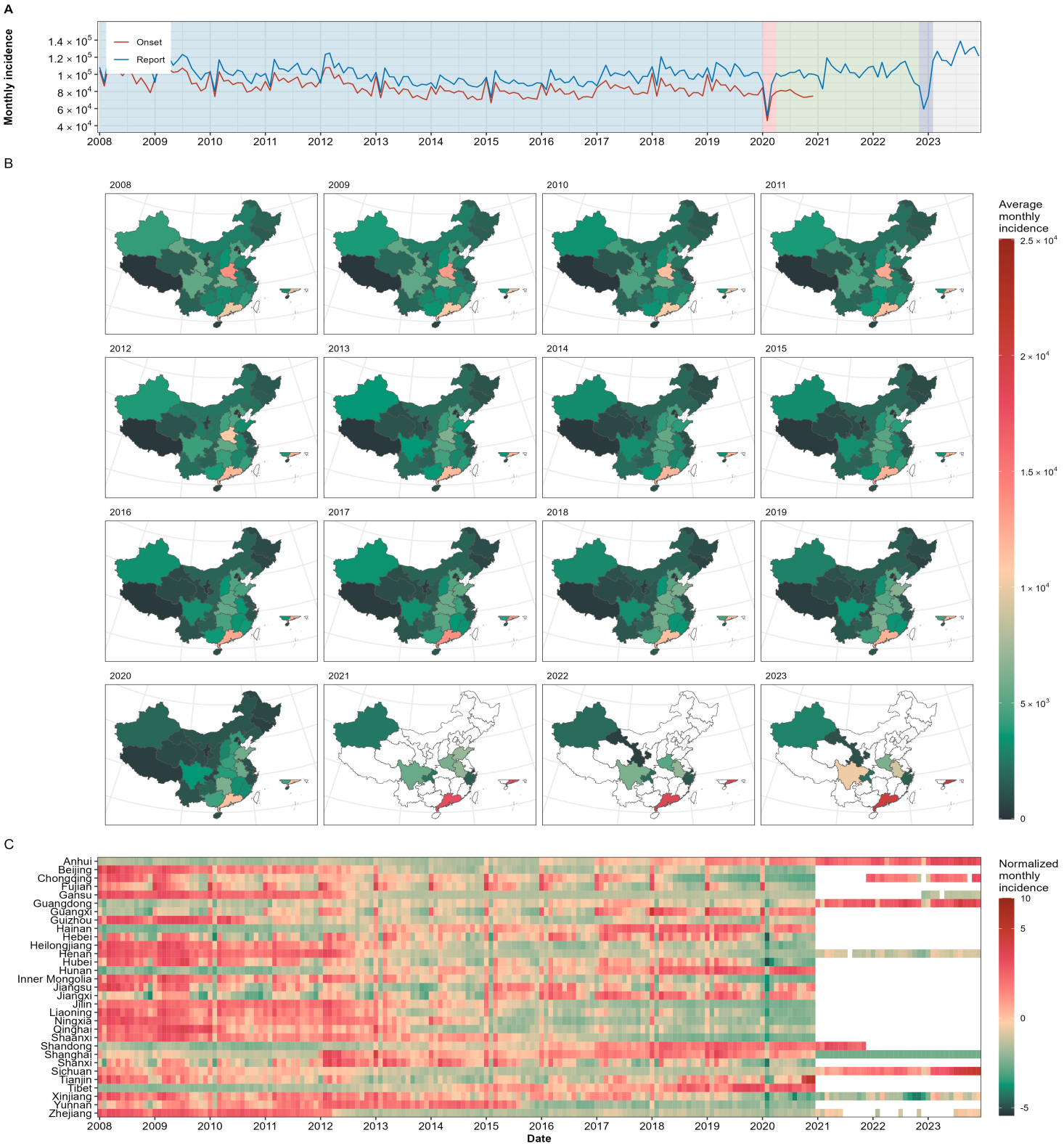
Supplementary Fig. 6. Temporal variation in monthly incidence of hepatitis A from January 2008 to December 2023 in China.

(A) The incidence of hepatitis A in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



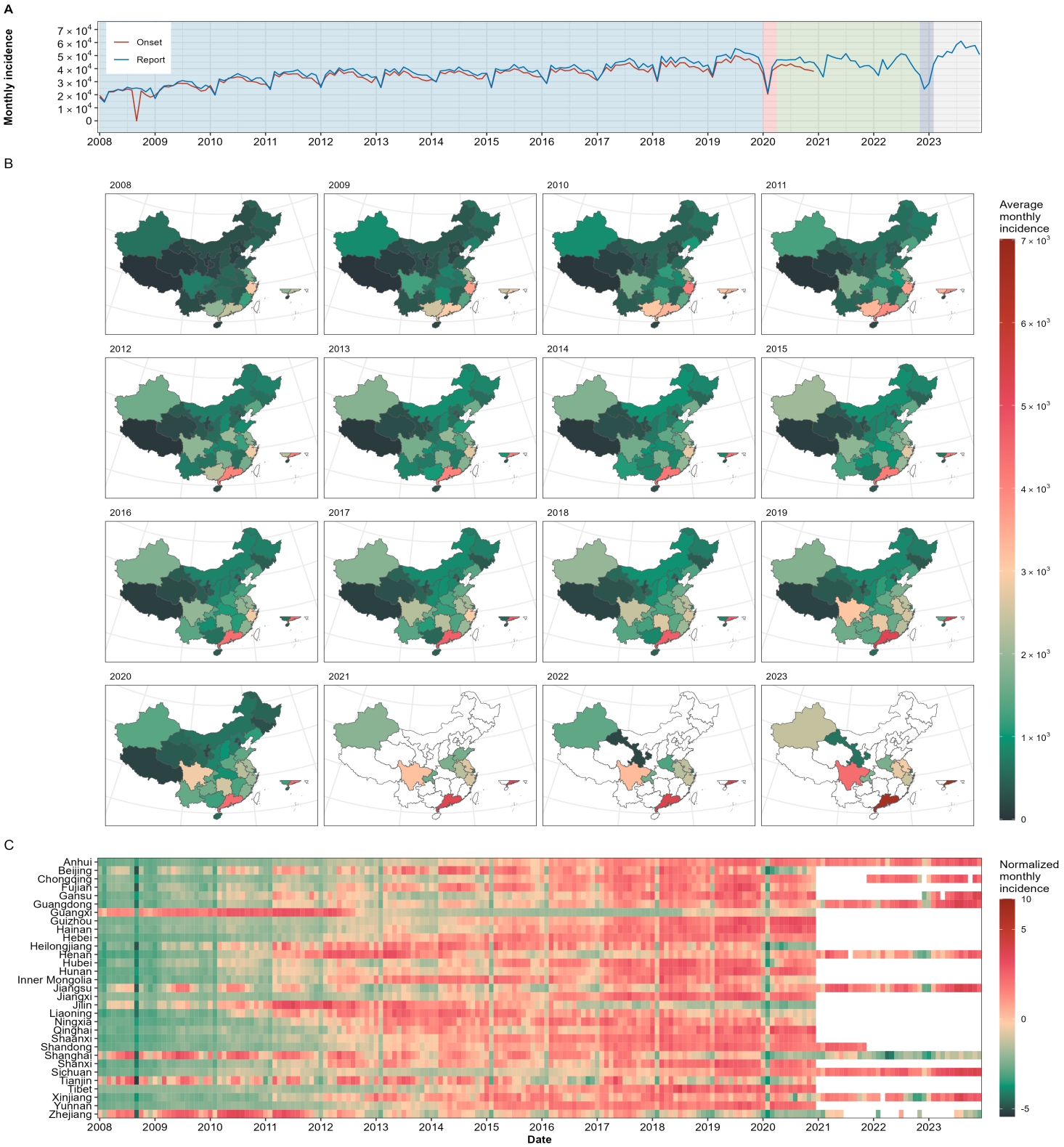
Supplementary Fig. 7. Temporal variation in monthly incidence of enteric fever from January 2008 to December 2023 in China.

(A) The incidence of enteric fever in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



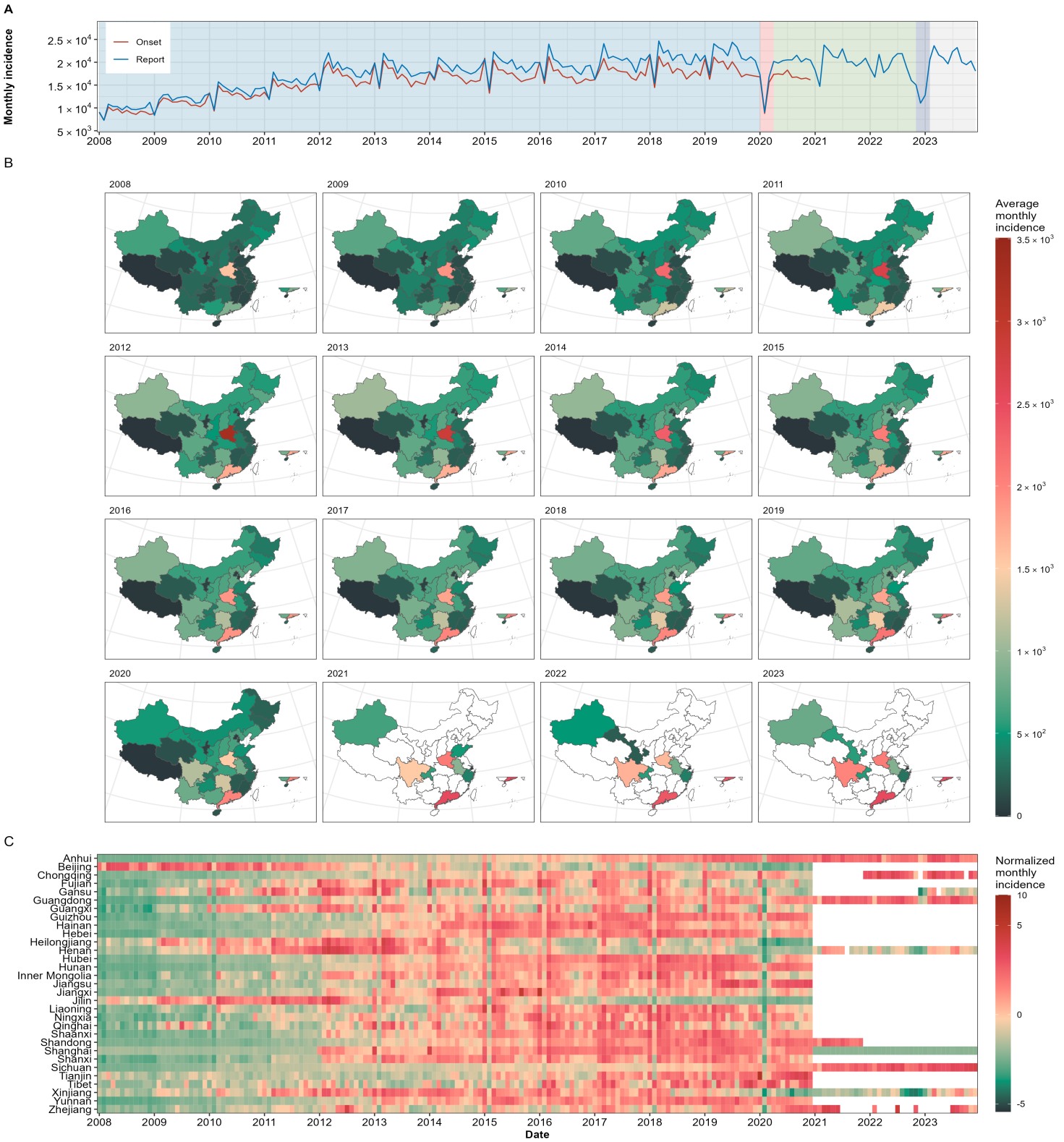
Supplementary Fig. 8. Temporal variation in monthly incidence of hepatitis B from January 2008 to December 2023 in China.

(A) The incidence of hepatitis B in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



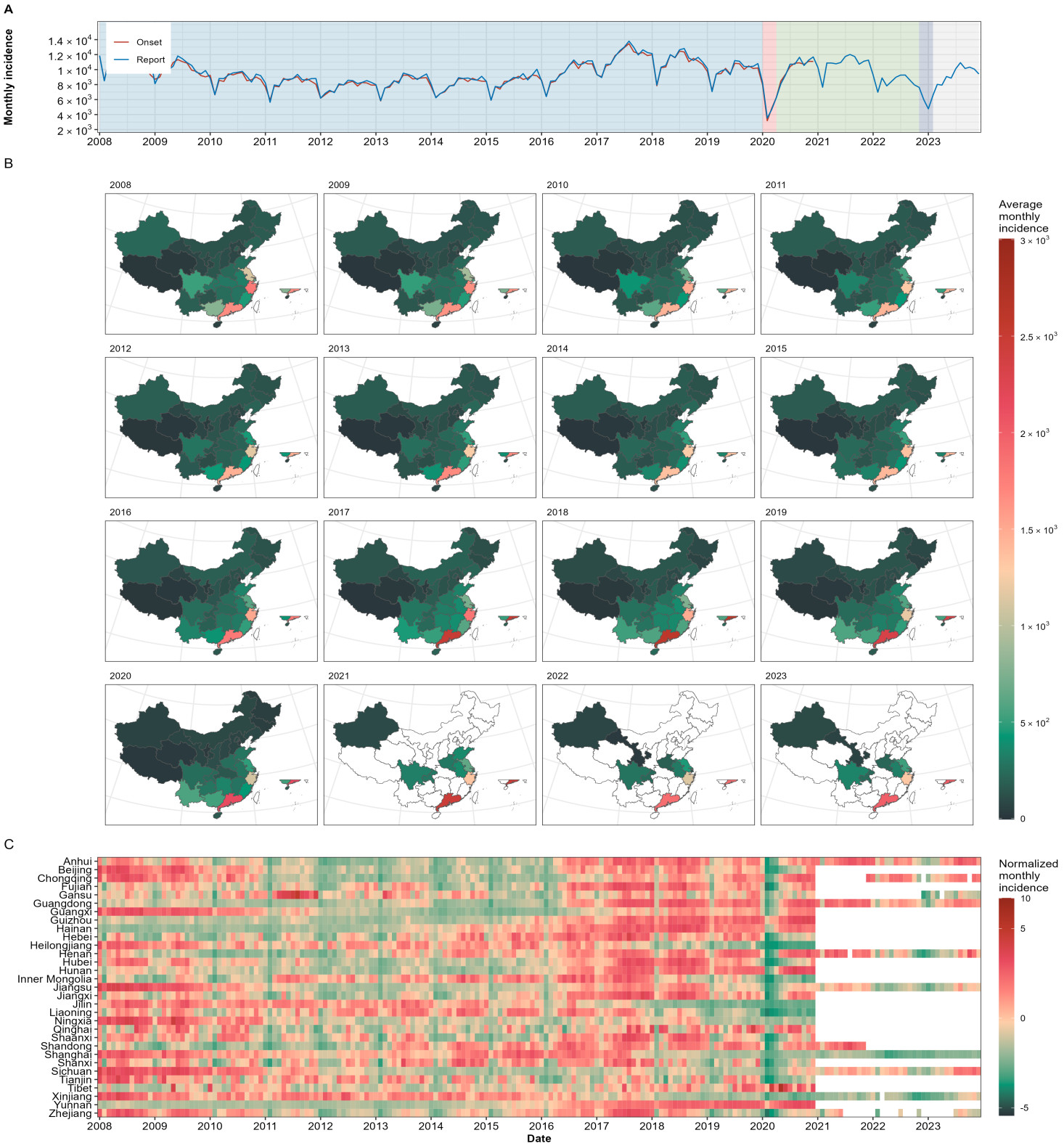
Supplementary Fig. 9. Temporal variation in monthly incidence of syphilis from January 2008 to December 2023 in China.

(A) The incidence of syphilis in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



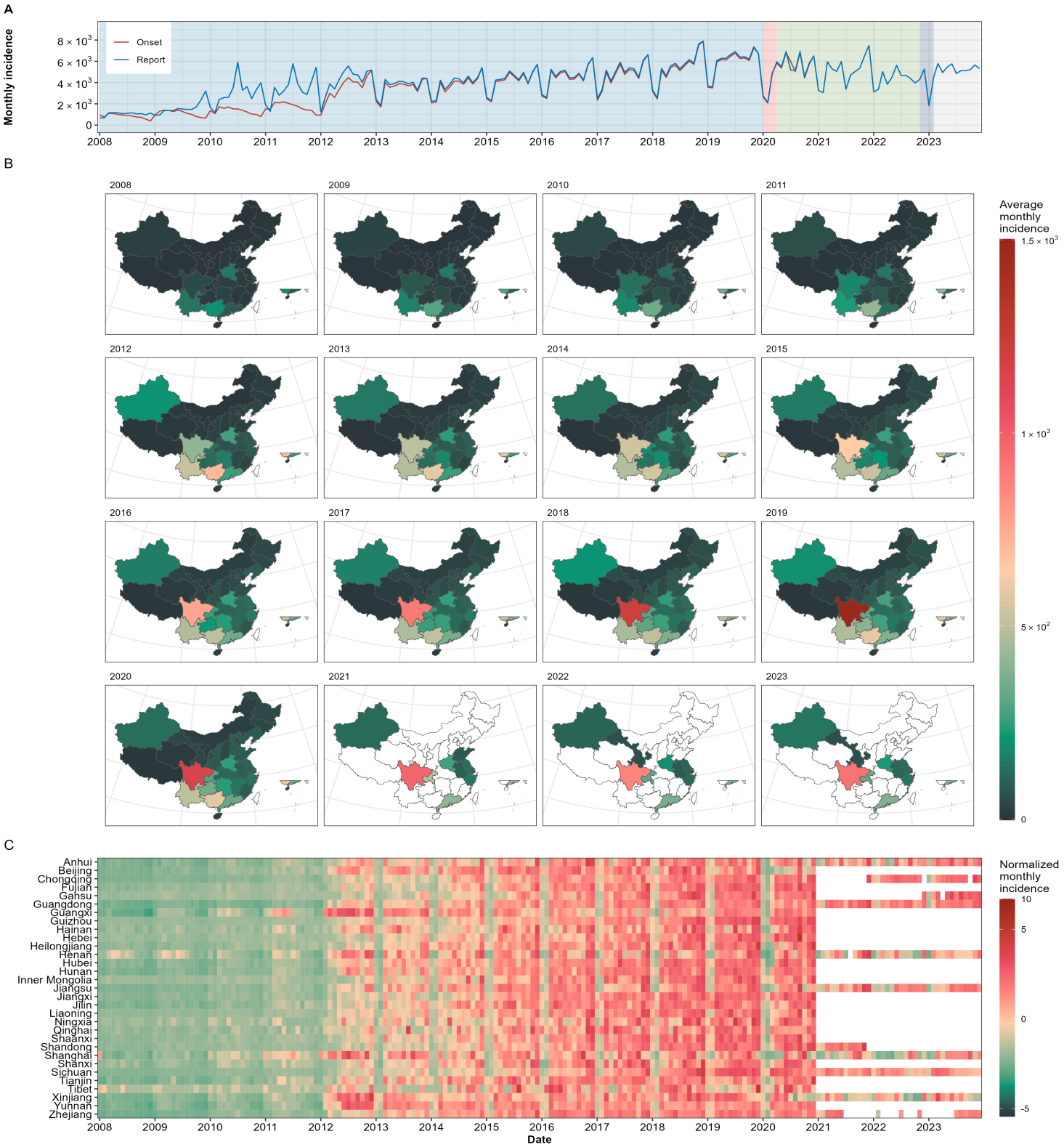
Supplementary Fig. 10. Temporal variation in monthly incidence of hepatitis C from January 2008 to December 2023 in China.

(A) The incidence of hepatitis C in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



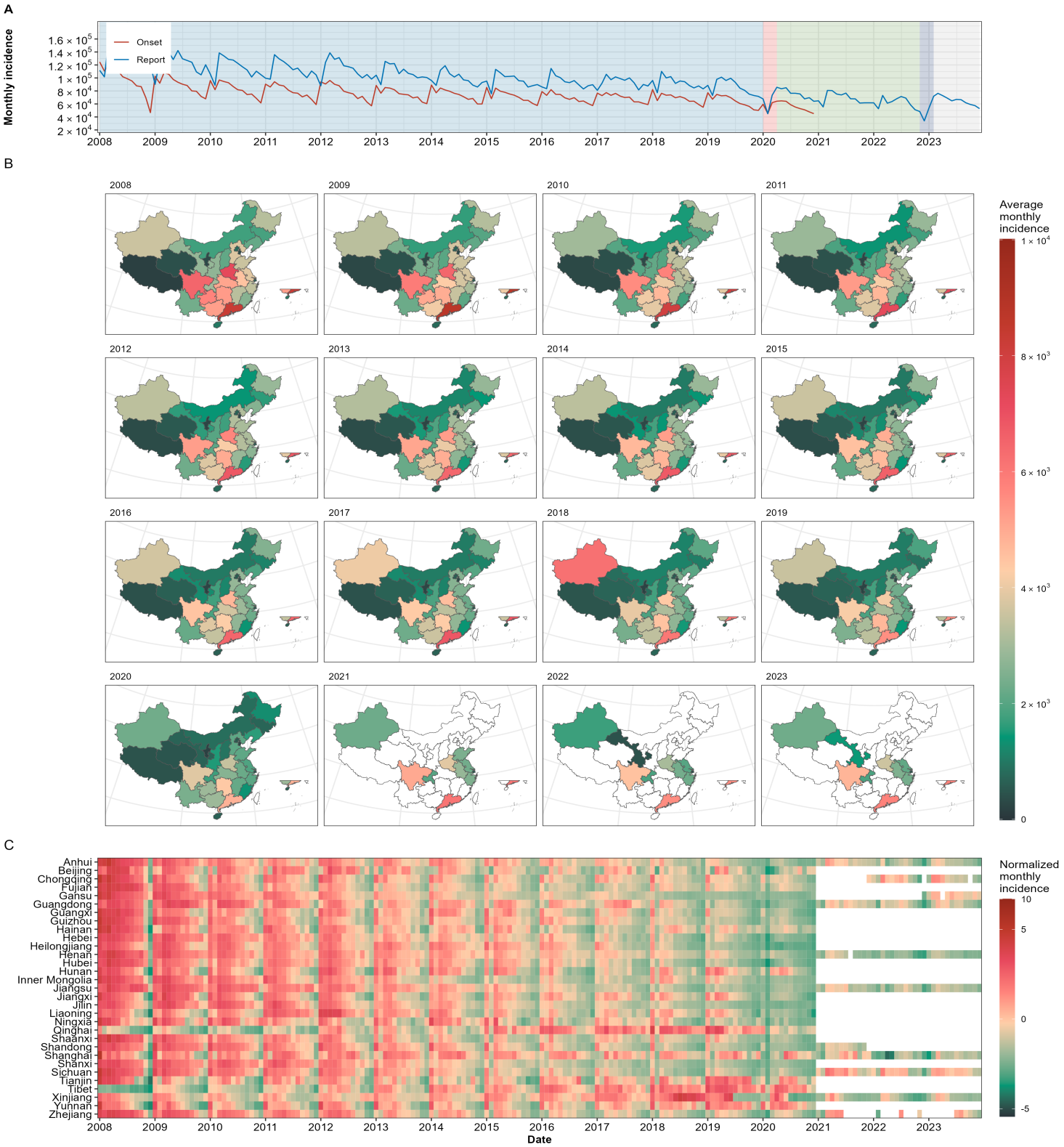
Supplementary Fig. 11. Temporal variation in monthly incidence of gonorrhea from January 2008 to December 2023 in China.

(A) The incidence of gonorrhea in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



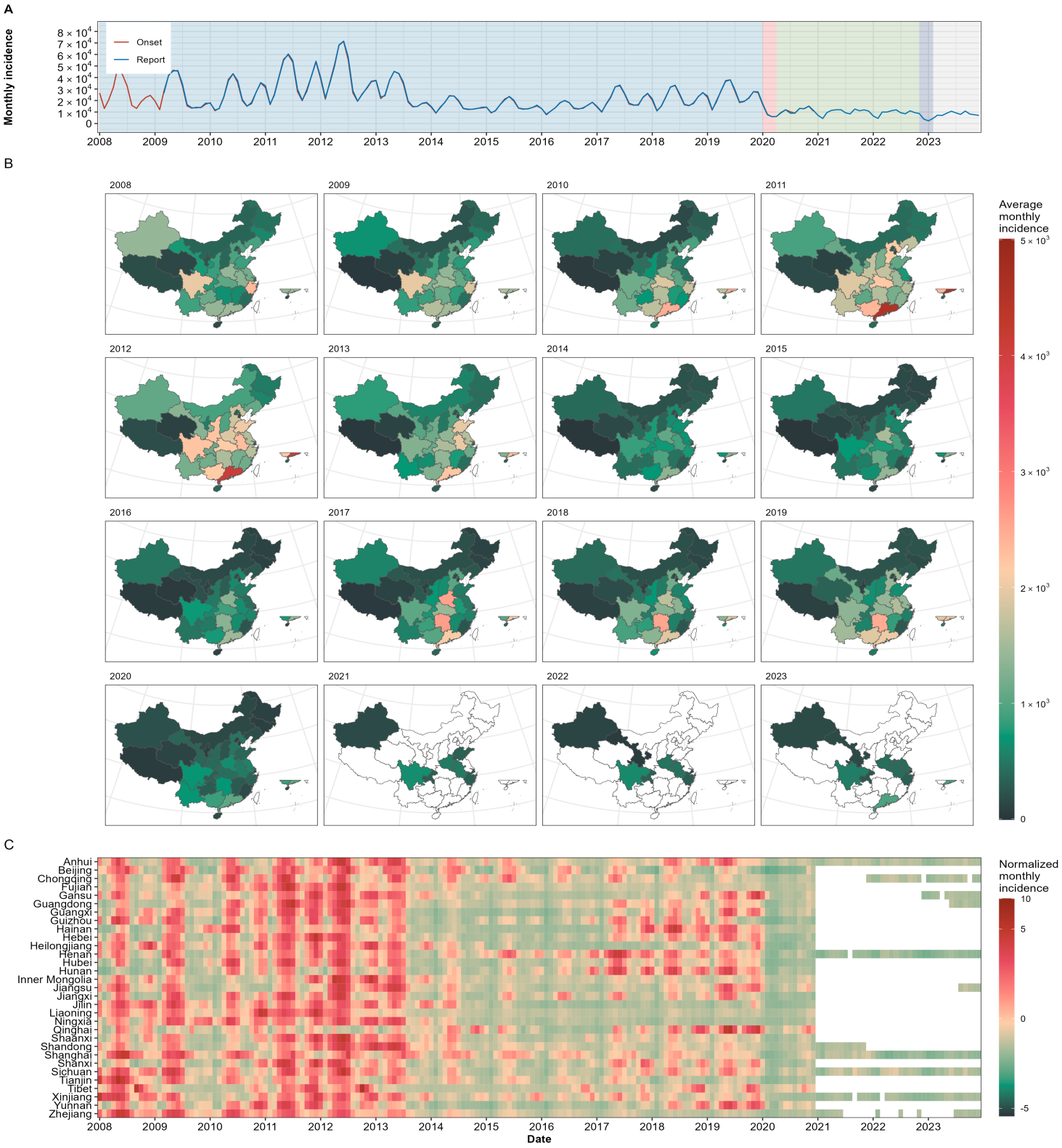
Supplementary Fig. 12. Temporal variation in monthly incidence of acquired immunodeficiency syndrome (AIDS) from January 2008 to December 2023 in China.

(A) The incidence of acquired immunodeficiency syndrome (AIDS) in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



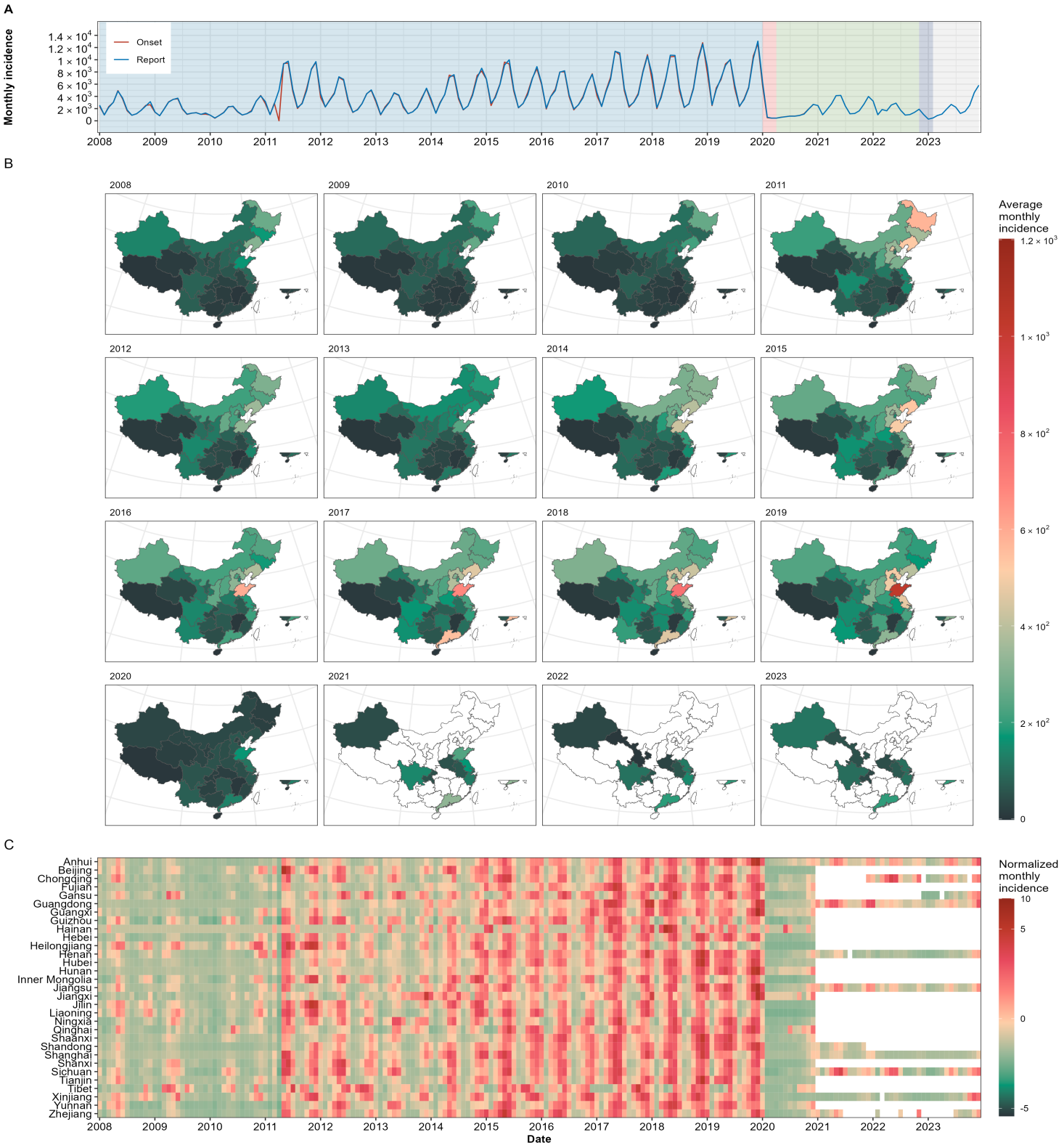
Supplementary Fig. 13. Temporal variation in monthly incidence of tuberculosis from January 2008 to December 2023 in China.

(A) The incidence of tuberculosis in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



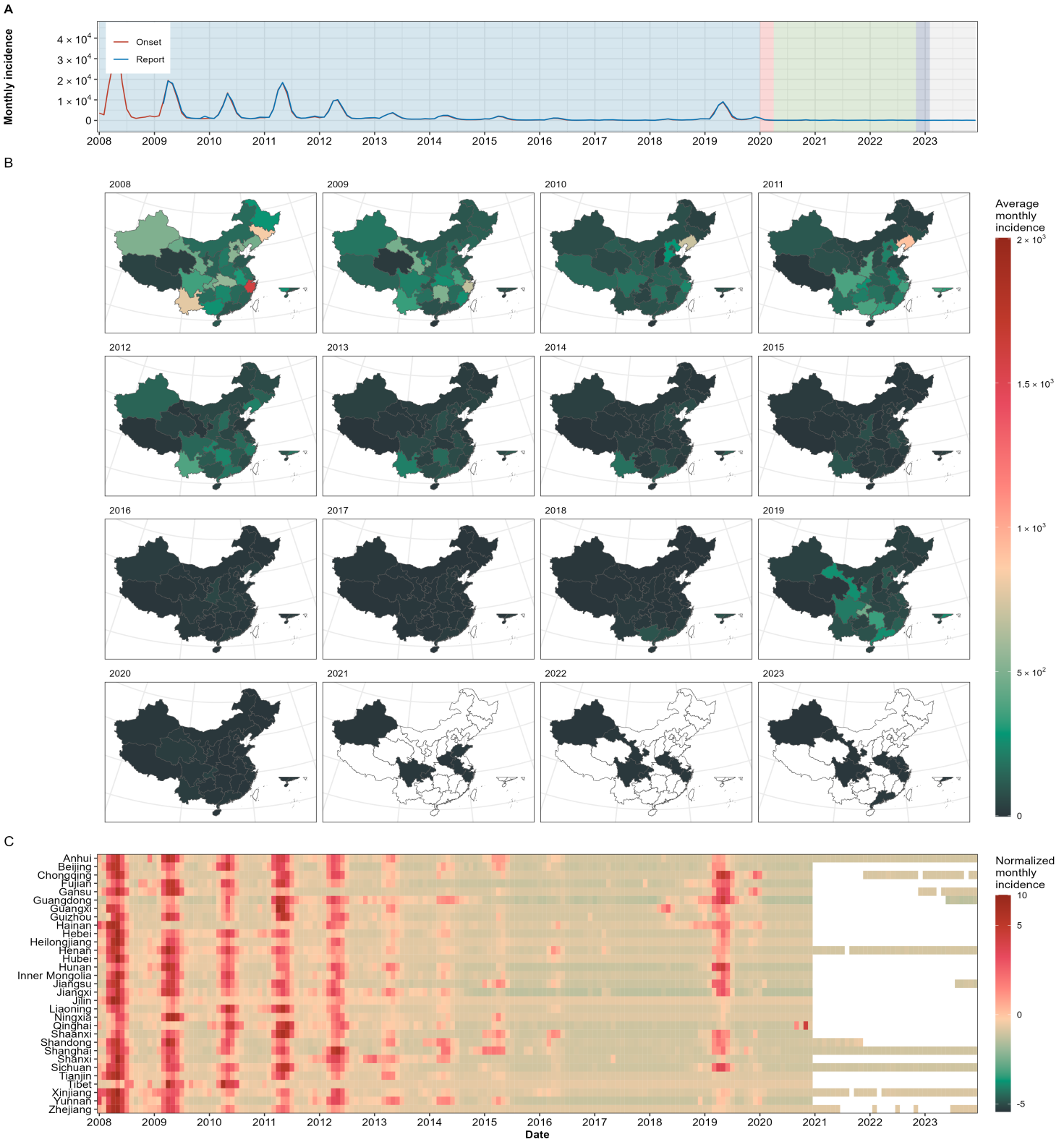
Supplementary Fig. 14. Temporal variation in monthly incidence of mumps from January 2008 to December 2023 in China.

(A) The incidence of mumps in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



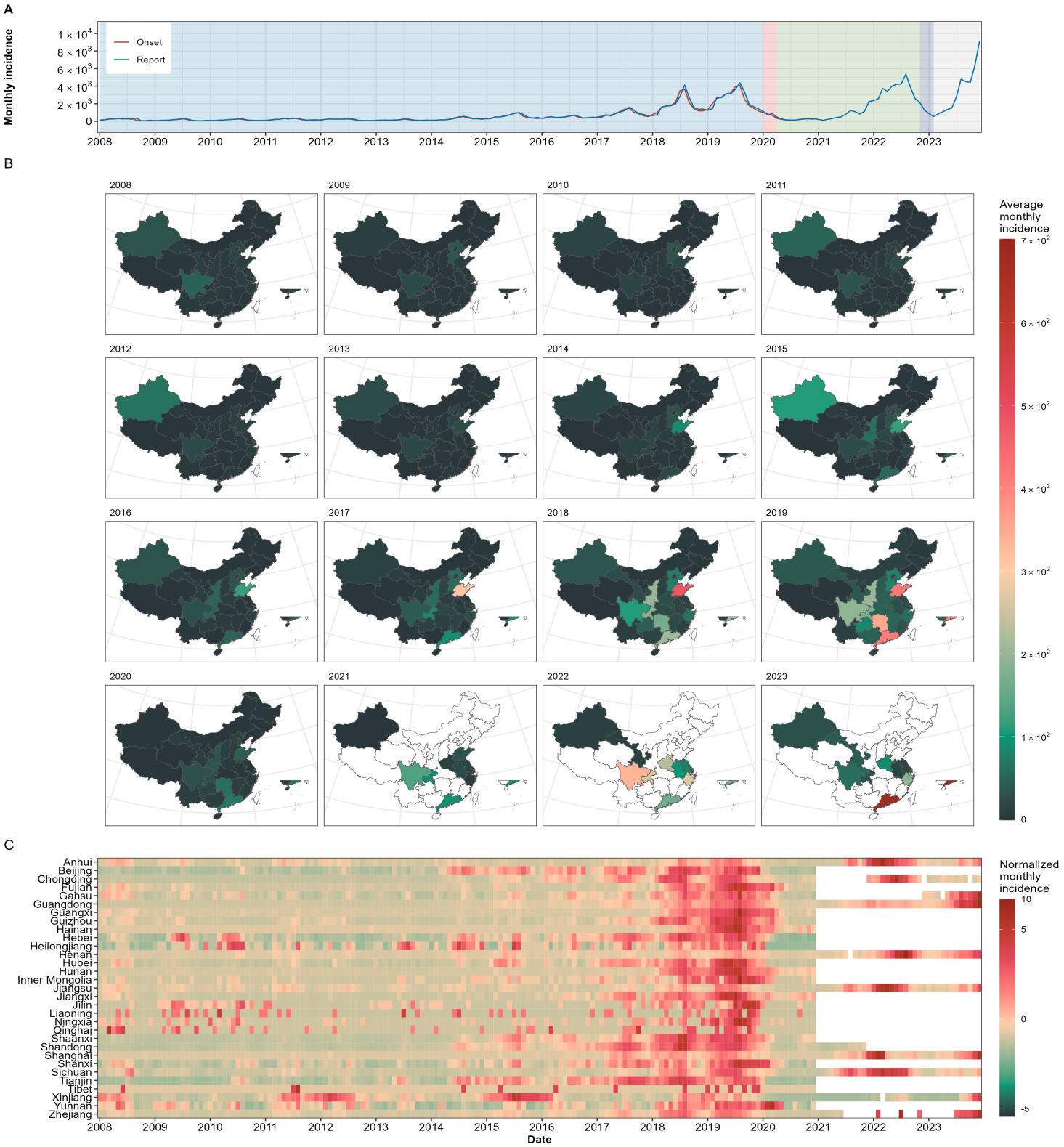
Supplementary Fig. 15. Temporal variation in monthly incidence of scarlet fever from January 2008 to December 2023 in China.

(A) The incidence of scarlet fever in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



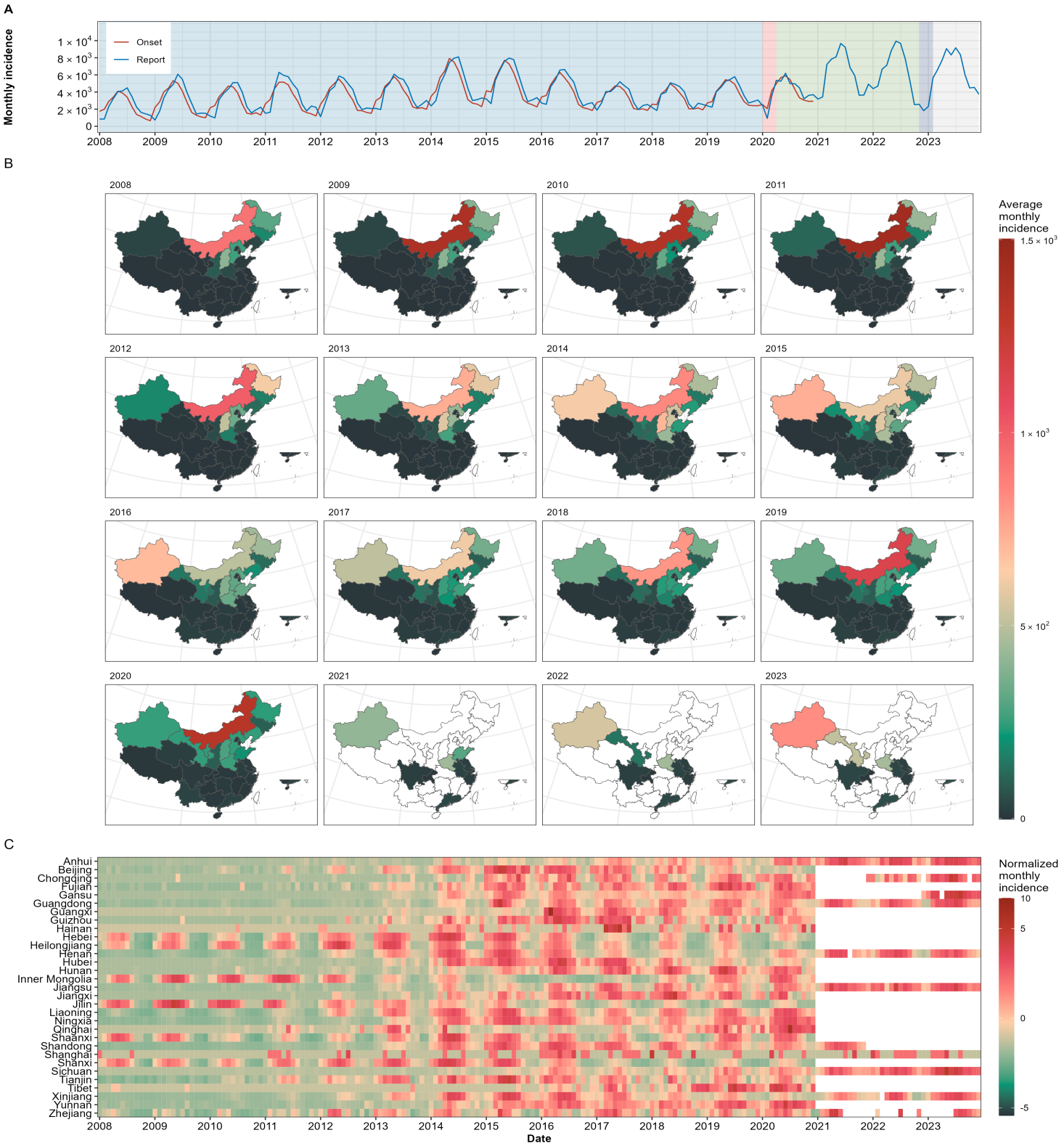
Supplementary Fig. 16. Temporal variation in monthly incidence of rubella from January 2008 to December 2023 in China.

(A) The incidence of rubella in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



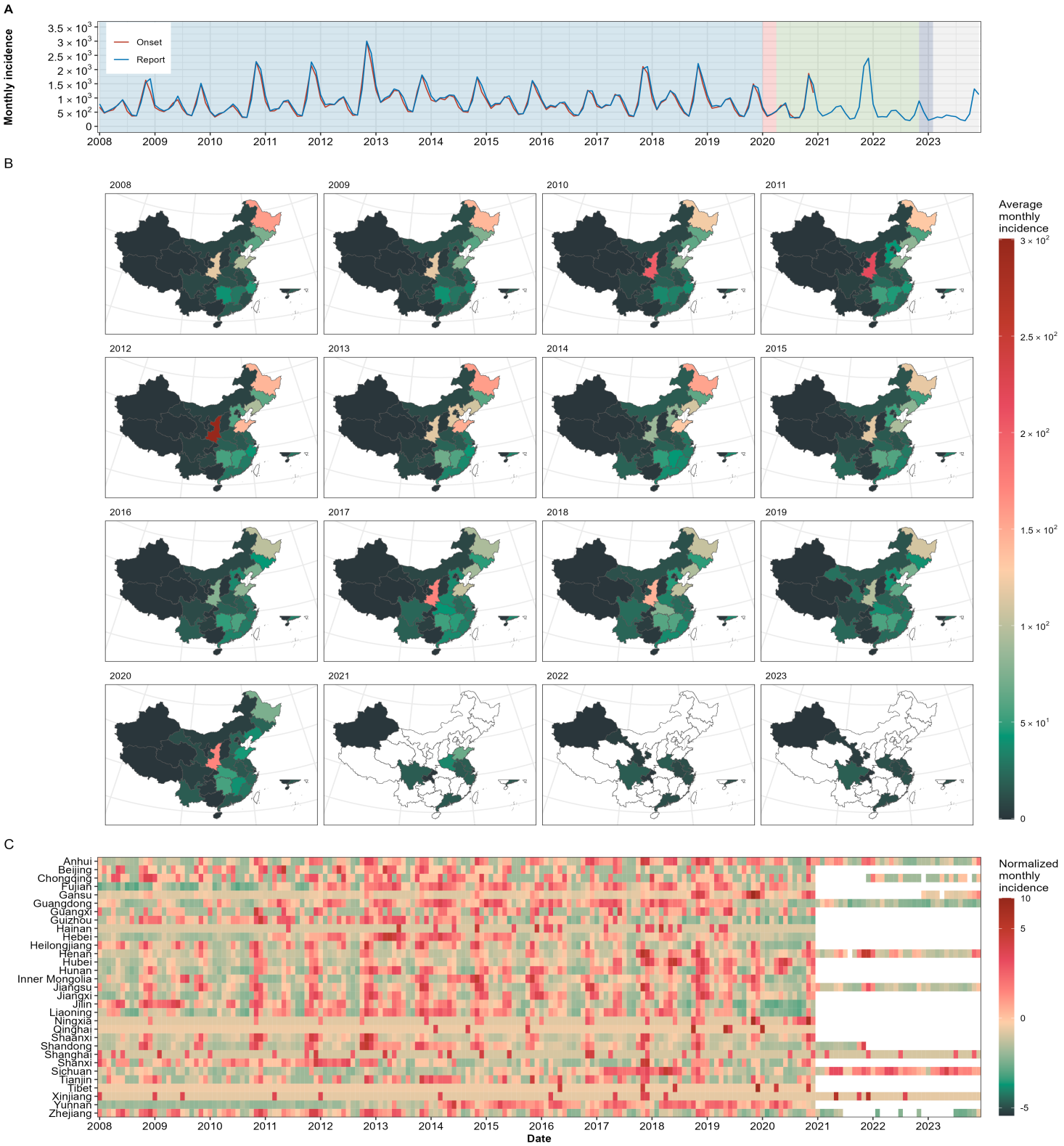
Supplementary Fig. 17. Temporal variation in monthly incidence of pertussis from January 2008 to December 2023 in China.

(A) The incidence of pertussis in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



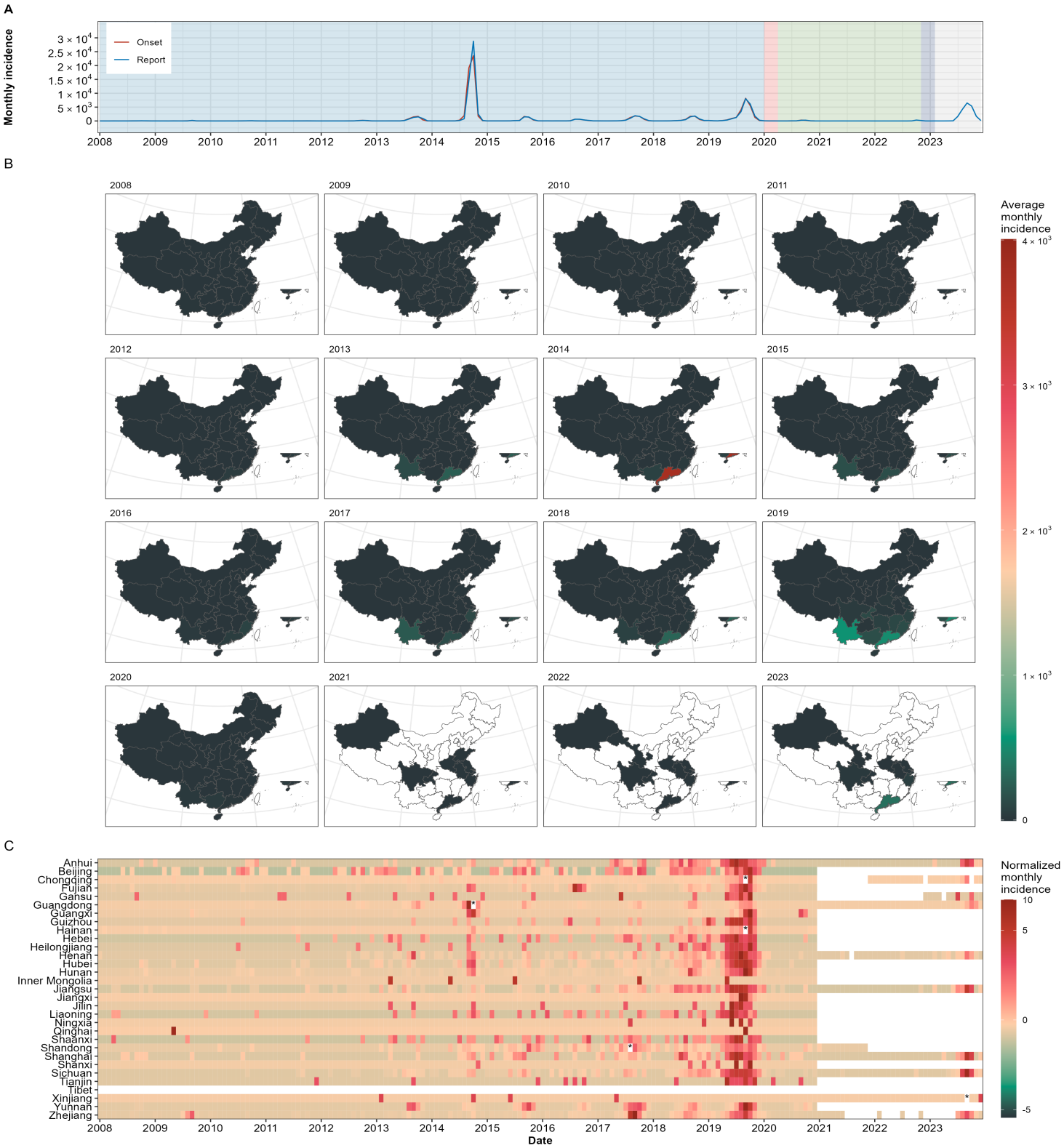
Supplementary Fig. 18. Temporal variation in monthly incidence of brucellosis from January 2008 to December 2023 in China.

(A) The incidence of brucellosis in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



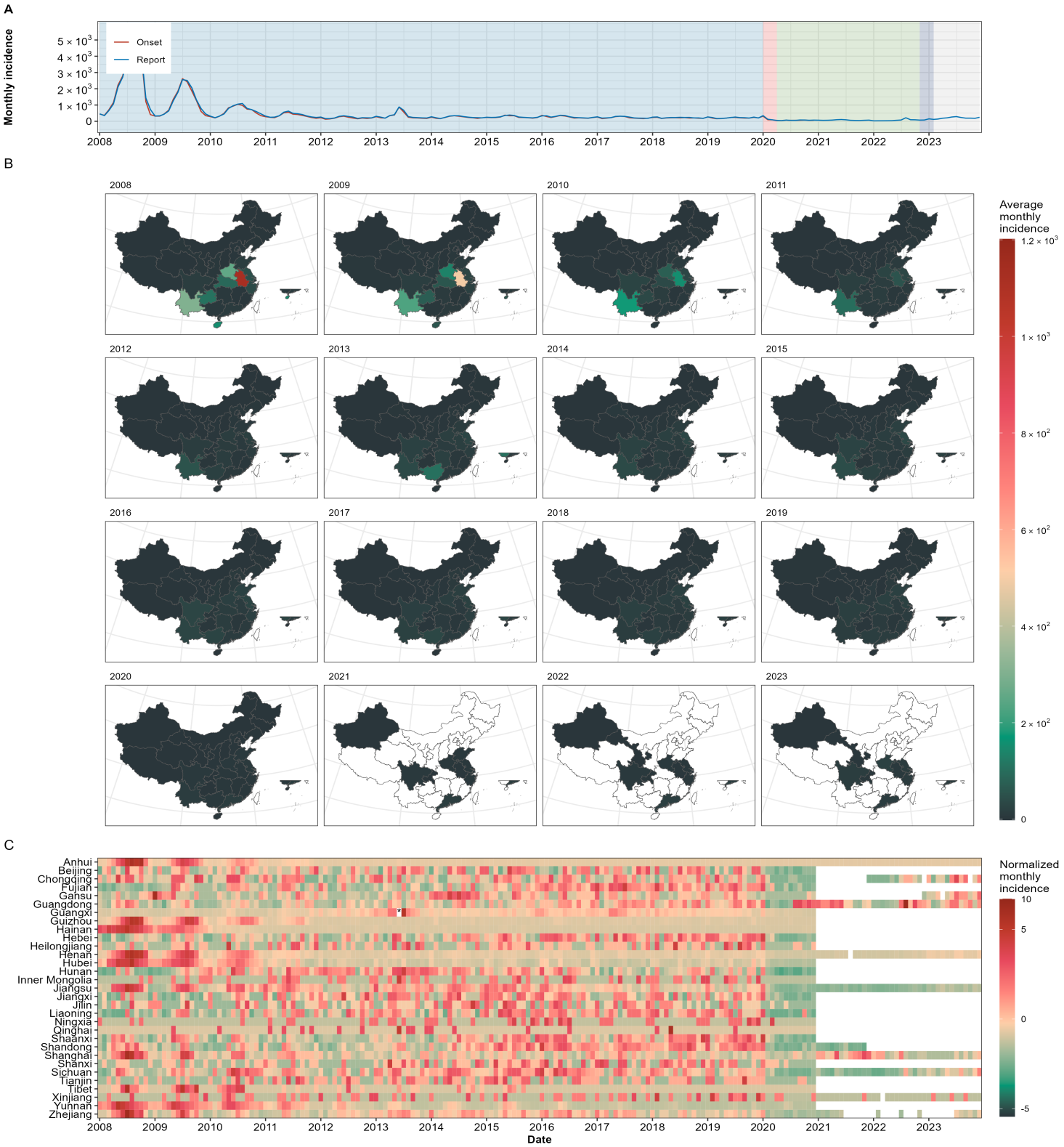
Supplementary Fig. 19. Temporal variation in monthly incidence of hemorrhagic fever with renal syndrome (HFRS) from January 2008 to December 2023 in China.

(A) The incidence of hemorrhagic fever with renal syndrome (HFRS) in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



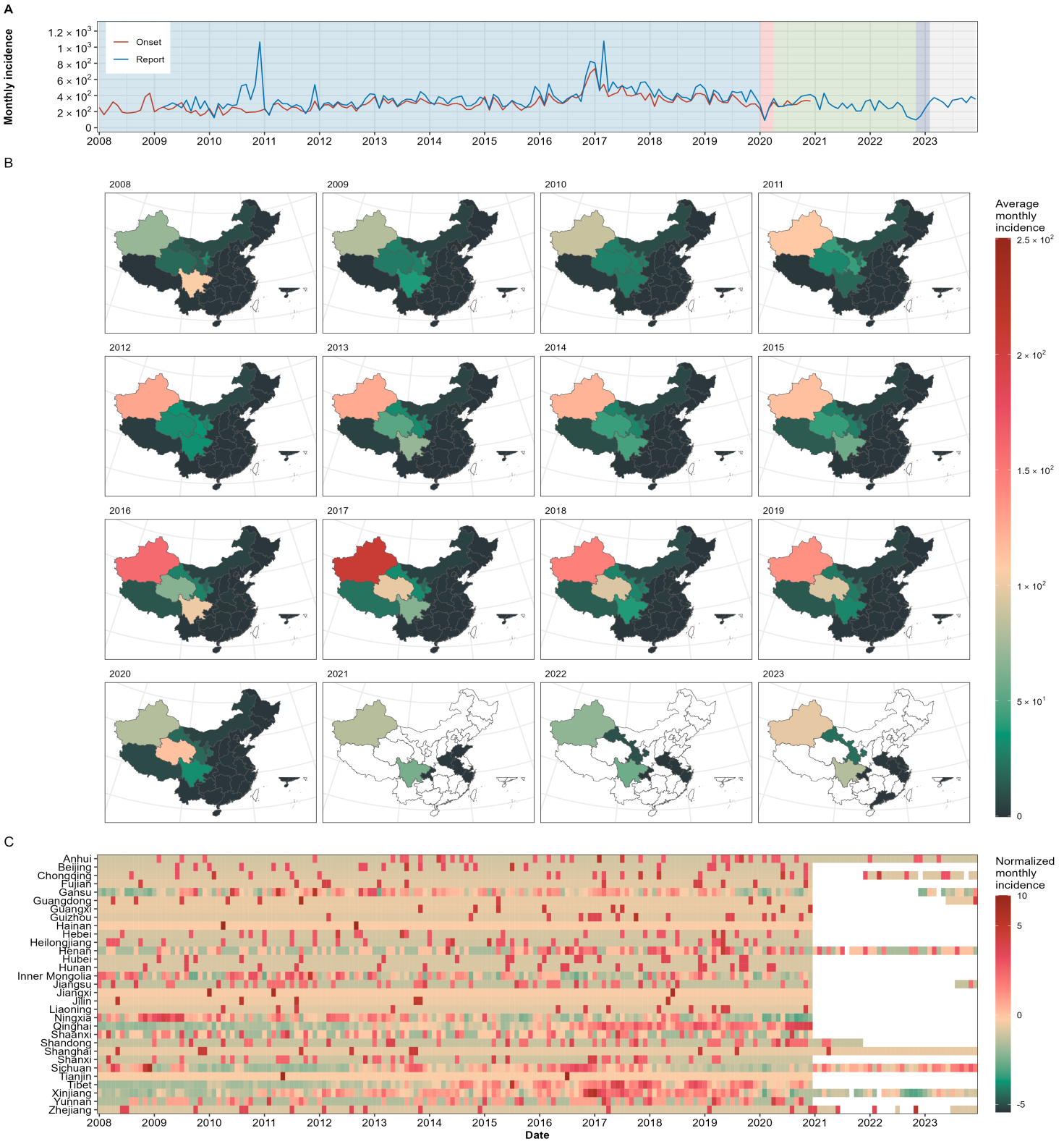
Supplementary Fig. 20. Temporal variation in monthly incidence of dengue fever from January 2008 to December 2023 in China.

(A) The incidence of dengue fever in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



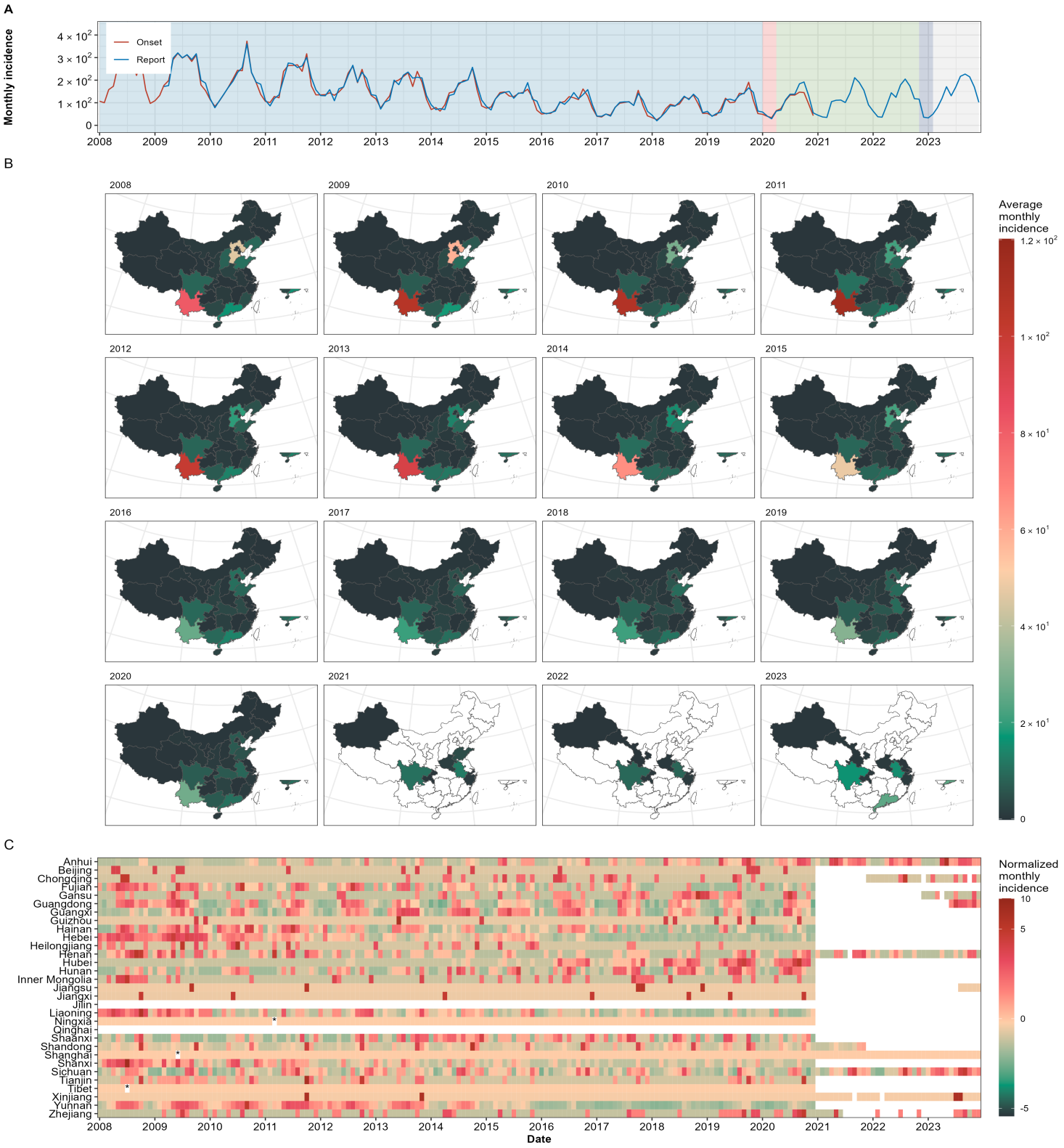
Supplementary Fig. 21. Temporal variation in monthly incidence of malaria from January 2008 to December 2023 in China.

(A) The incidence of malaria in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



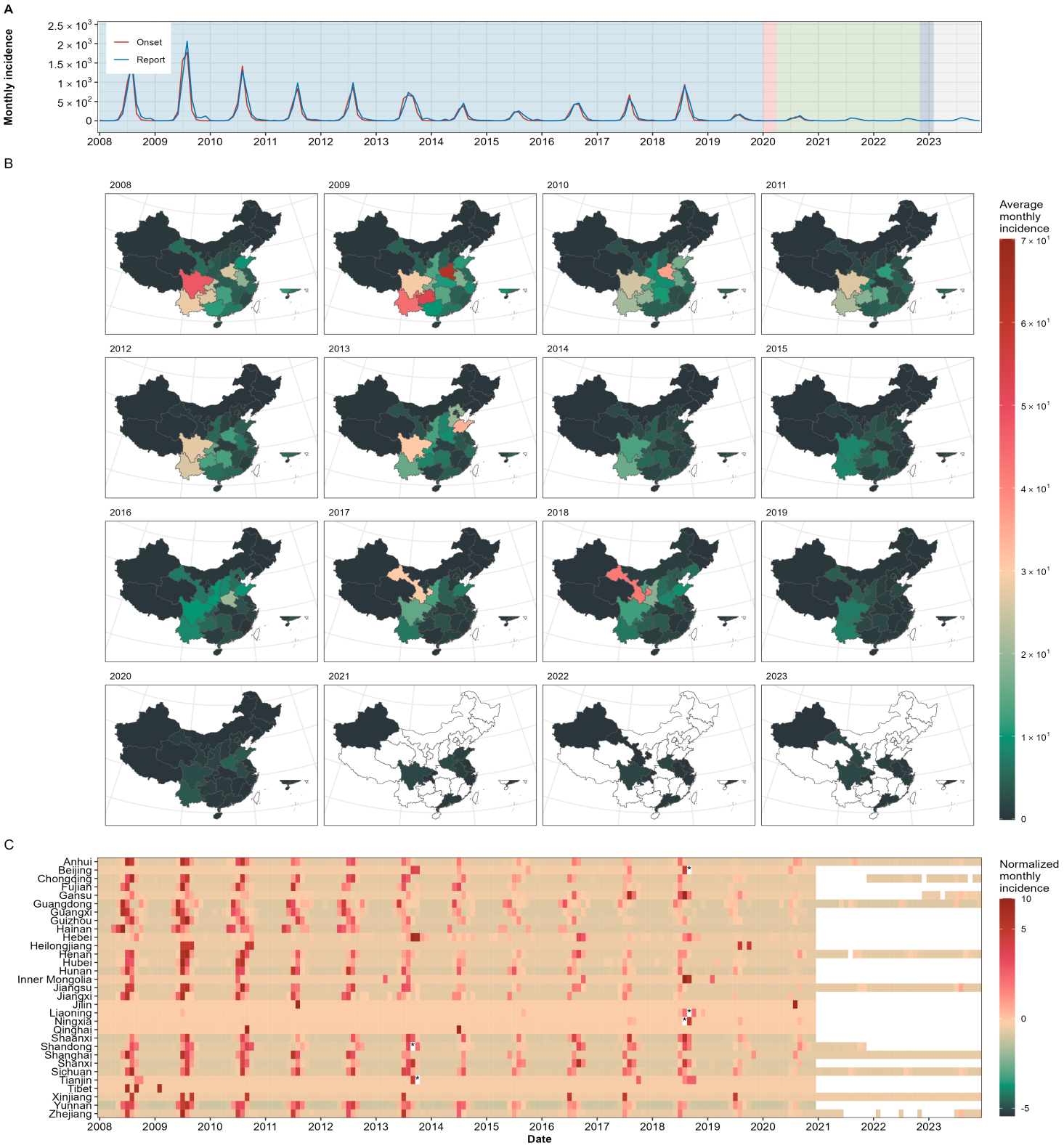
Supplementary Fig. 22. Temporal variation in monthly incidence of echinococcosis from January 2008 to December 2023 in China.

(A) The incidence of echinococcosis in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



Supplementary Fig. 23. Temporal variation in monthly incidence of typhus from January 2008 to December 2023 in China.

(A) The incidence of typhus in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.



Supplementary Fig. 24. Temporal variation in monthly incidence of Japanese encephalitis (JE) from January 2008 to December 2023 in China.

(A) The incidence of Japanese encephalitis (JE) in China from January 2008 to December 2023; **(B)** The spatial distribution of cases in China; **(C)** Temporal variation in monthly incidence among different provinces. The heatmap represents the normalized monthly incidence data of each province, and the color intensity corresponds to the normalized monthly incidence. Provincial data in panel **(B)** and **(C)** before January 2020 sourced from the Chinese Public Health Science Data Center, and data after January 2020 sourced from the provincial Notifiable Infectious Diseases Reports. * Normalized monthly incidence > 10.