

the pharynx is not an ideal site for *N. gonorrhoeae* growth. From the routine examinations of commercial sex workers during January–March 2009, 40 *N. gonorrhoeae* were isolated in the clinic, but no other ceftriaxone-resistant strains were isolated. There is no evidence of dissemination of this strain in Kyoto.

Three independent molecular subtyping methods indicated that the ceftriaxone-resistant H041 strain was *N. gonorrhoeae*, and it might originate from an ST7363 cefixime-resistant *N. gonorrhoeae* clone. There are several possible mechanisms for the acquisition of resistance, including formation of a new mosaic type *penA* allele as *penA-X* cefixime resistance and acquisition of an extended-spectrum β -lactamase gene. The H041 strain did not produce β -lactamase in a nitrocephin test. Further molecular analysis is needed to elucidate the precise mechanism of the ceftriaxone resistance of the H041 strain.

The emergence of ceftriaxone-resistant *N. gonorrhoeae* raises concerns for controlling gonorrhoea because ceftriaxone is widely recommended and the first-line treatment for gonorrhoea around the world. *N. gonorrhoeae* has a potential to gain an extraordinarily high MIC to ceftriaxone. Surveillance for ceftriaxone-resistant *N. gonorrhoeae* should be strengthened.

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Role of National Travel Health Network and Centre Website during Pandemic (H1N1) 2009

To the Editor: The National Travel Health Network and Centre (NaTHNaC) was created in 2002 by the Department of Health in England to provide authoritative guidance in travel medicine. The open-access NaTHNaC website (www.nathnac.org) is a key mode of communication, with both health professionals' and travelers' areas. Website country information pages (CIP) provide specific guidance for travel to each country of the world, and an outbreak surveillance database (OSD) detailing global outbreaks of disease is updated daily.

In late April 2009, influenza A virus (H1N1) of swine origin was identified in 2 children from California, USA (1). These cases were traced to travel to Mexico, and a widespread outbreak of influenza A (H1N1) in Mexico subsequently was recognized. On June 11, 2009, the World Health

Organization declared a global influenza pandemic (2). We reviewed use of the NaTHNaC website during the early recognition of pandemic (H1N1) 2009. During this phase, before widespread community transmission in the United Kingdom, assessing the international situation was necessary because travel abroad represented the highest risk for infection (3).

NaTHNaC, the national authority for travel health advice, posted multiple information resources on pandemic (H1N1) 2009. A daily table of internationally reported cases and deaths was compiled from official sources. A more detailed report of confirmed and suspected cases was circulated to key NaTHNaC stakeholders, including the Health Protection Agency (HPA) and the Foreign and Commonwealth Office (FCO). The OSD listed progression of the pandemic by date, country, and region. Reports of the pandemic and advice on preventive measures for travelers, termed Clinical Updates, were written daily, posted, and circulated to stakeholders.

NaTHNaC website statistics were obtained from Google Analytics. Use for the first 8 weeks of the pandemic period (April 24–June 18, 2009) was extracted, analyzed by using STATA version 9.1 (StataCorp LP, College Station, TX, USA), and compared with use

for the 8 weeks preceding the start of the pandemic influenza (prepandemic period, February 27–April 23, 2009).

During the pandemic period, the daily number of visits to the website increased 28.1% over the prepandemic period (Table; online Technical Appendix Figure 1, www.cdc.gov/EID/content/17/1/149-Techapp.pdf). More new visitors accessed the website (63.6% vs. 61.7%), particularly through the Health Professionals portal (50.7% vs. 46.1%; $p < 0.001$).

The number of website visitors from Mexico and the number of visits to the Mexico CIP also increased; Mexico was the most frequently searched country on the OSD (Table). Visits to the Mexico CIP (633 visits) and the Mexico OSD (129 visits) pages peaked on April 27, the Monday after pandemic (H1N1) 2009 was recognized. The pandemic (H1N1) 2009 home page that hosted clinical updates, news items, and an information sheet about subtype H1N1 became the seventh most viewed page (11,009 views). Visits for advice on seasonal influenza also increased markedly.

During the pandemic period, the website was accessed more often through referring websites (46.3%) than it was during the prepandemic period (39.9%; $p < 0.001$). The most

frequent referral website was the FCO (Table), accounting for 56.4% of all referrals during the pandemic period, with a peak on April 27 (online Technical Appendix, Figure 2). A large increase also occurred in referrals from the HPA.

Our analysis documents increased use of a national resource during the emergence of pandemic (H1N1) 2009. Information accessed included specific country information for Mexico and the United States, the countries first reporting cases, and information about and guidance for the prevention of pandemic (H1N1) 2009. The 28% increase in access to the website most likely reflected widespread interest in the pandemic, new links to the NaTHNaC website from UK authorities (e.g., FCO and HPA), and daily communication with stakeholders within the United Kingdom. In addition, NaTHNaC collaborated with these stakeholders and public health agencies to report progression of the outbreak and to help set policy on travel to influenza-affected countries.

The internet is a major resource for travel health information for health professionals and travelers. In 2008, $\approx 83\%$ of internet users and 61% of all US adults used the Internet to acquire health information; 9% searched for travel health information (4). Public health agencies also use the Internet to assess global disease threats. Many use informal Internet sources, such as news articles and media outlets, to monitor potential threats in a more timely fashion than through the often delayed public health reporting mechanisms (5–7).

During a rapidly evolving global health situation, such as pandemic influenza, timely, accurate information is needed. The World Health Organization provided daily, and often twice daily, information (8); the US Centers for Disease Control and Prevention and the European Centre for Disease Prevention and Control used new and existing reporting systems (9,10). The

Table. Number of visits to or searches on the National Travel Health Network and Centre website during the 8 weeks before and after recognition of pandemic (H1N1) 2009

Visits or searches	No. before*	No. after†	% Change
Daily website visits	1,664 ± 655	2,132 ± 885	+28.1
Website access from Mexico	55	210	+281.8
Visits to Mexico Country Information Page	2,040	4,090	+100.5
Mexico searches on the Outbreak Surveillance Database	50	459	+818.0
Visits to US country information page	654	2003	+206.3
Visits to seasonal influenza information sheet	34	1,572	+4,523.5
Visits to Outbreak Surveillance Database home page	2,050	5,110	+149.3
Referral traffic from Foreign and Commonwealth Office	21,604	31,200	+44.4
Referral traffic from Health Protection Agency	1,399	7,247	+418.0

*Data from before the beginning of the pandemic (February 27–April 23, 2009).

†Data from the first 8 weeks of the pandemic (April 24–June 18, 2009).

experience of NaTHNaC indicates that acquisition and coordination of information with health authorities, rapid and direct communication of findings and recommendations to stakeholders, and posting of this information for access by travelers and health professionals can increase communication about global health events.

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Zoonotic Cryptosporidiosis from Petting Farms, England and Wales, 1992–2009

To the Editor: Visits to petting farms in England and Wales recently have increased in popularity. Petting farms are commercial operations at which visitors, mainly families and organized groups, are encouraged to have hands-on contact with animals. The ≈1,000 petting farms in the United Kingdom collectively receive >2 million visitors per year, with peak visitor times during school and public holidays. Commercial farms also may host farm visits on single days for group and school visits. The farm attraction business is a substantial part of the rural economy, generating >£12 million annually (1).

During 1992–2009, a total of 55 outbreaks of infectious intestinal disease associated with petting farms in England and Wales was reported to the Health Protection Agency. Verocytotoxin-producing *Escherichia coli*

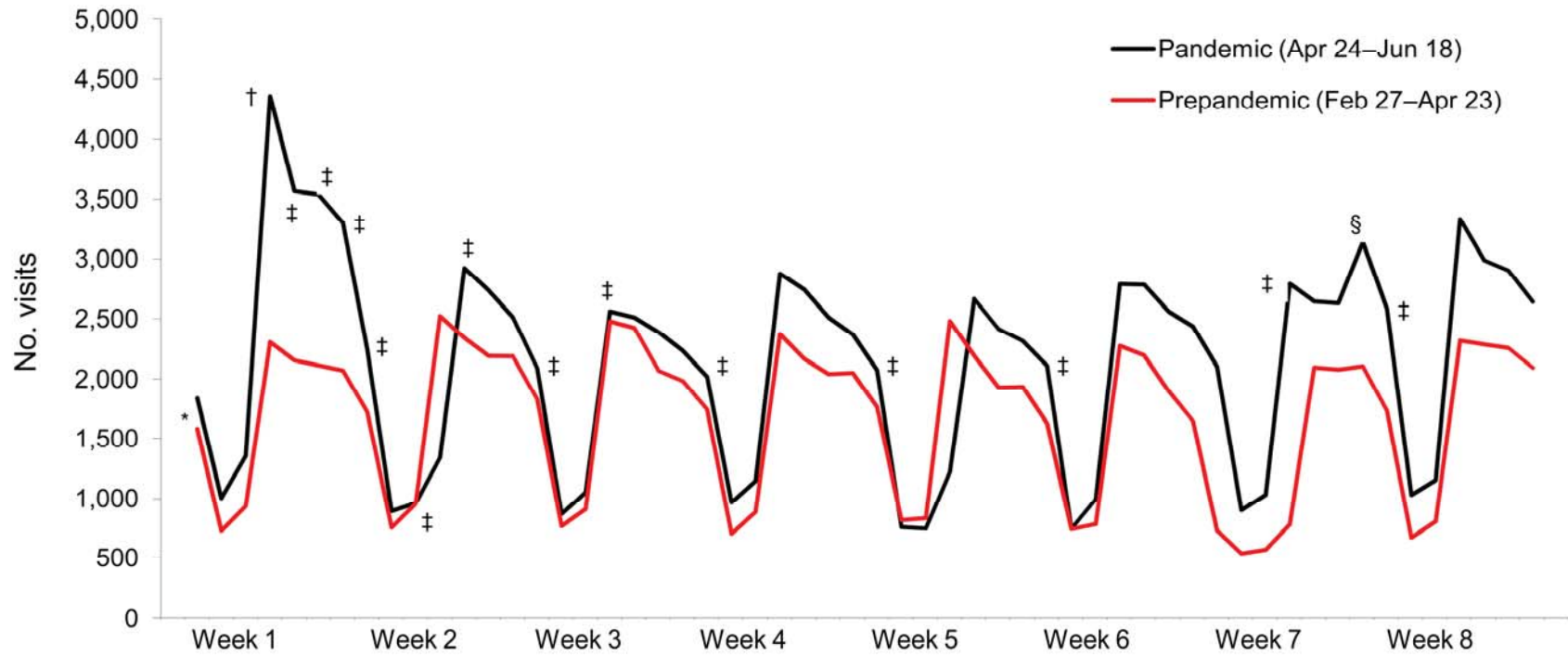
O157 (VTEC O157) caused 30 (55%) of these outbreaks (244 persons were affected [range 2–93, mean 8] and 84 were hospitalized); *Salmonella enterica* serovar Typhimurium definitive phage type 104 caused 2 (3%) of the outbreaks. A total of 23 (42%) petting farm outbreaks were caused by *Cryptosporidium* spp. (1,078 persons were affected [range 2–541, mean 45] and 29 were hospitalized). We report on these cryptosporidiosis outbreaks as a reminder of the risk to petting farm visitors.

Contributory factors reported in the cryptosporidiosis outbreaks included direct contact with preweaned lambs, calves, kids, or animal feces (e.g., diarrhea in lambs, a recognized risk factor for cryptosporidiosis; 11/23 [48%]) and inadequate hand washing facilities (7/23 [30%]). Of outbreaks in which hand washing facilities were inadequate, thumb sucking by children was also noted in 1; in another, alcohol-based hand gels and sanitizers, which are ineffective against *Cryptosporidium* spp., were used.

Cryptosporidium spp. are coccidian parasites that infect a wide range of farm livestock, including cattle, sheep, goats, pigs, horses, and deer, but are mainly a veterinary problem in neonatal ruminants. *C. parvum*, for example, is a common agent in the etiology of the neonatal diarrhea syndrome of calves, lambs, and goat kids. Widespread asymptomatic carriage of this parasite exists in livestock in the United Kingdom (2). In humans, cryptosporidiosis occurs most commonly in children <5 years of age, can be life threatening in immunocompromised persons, and is caused predominantly by *C. hominis* and *C. parvum* parasites. Fecal–oral transmission can occur directly from animal to person and from person to person or indirectly through contaminated food or water (2).

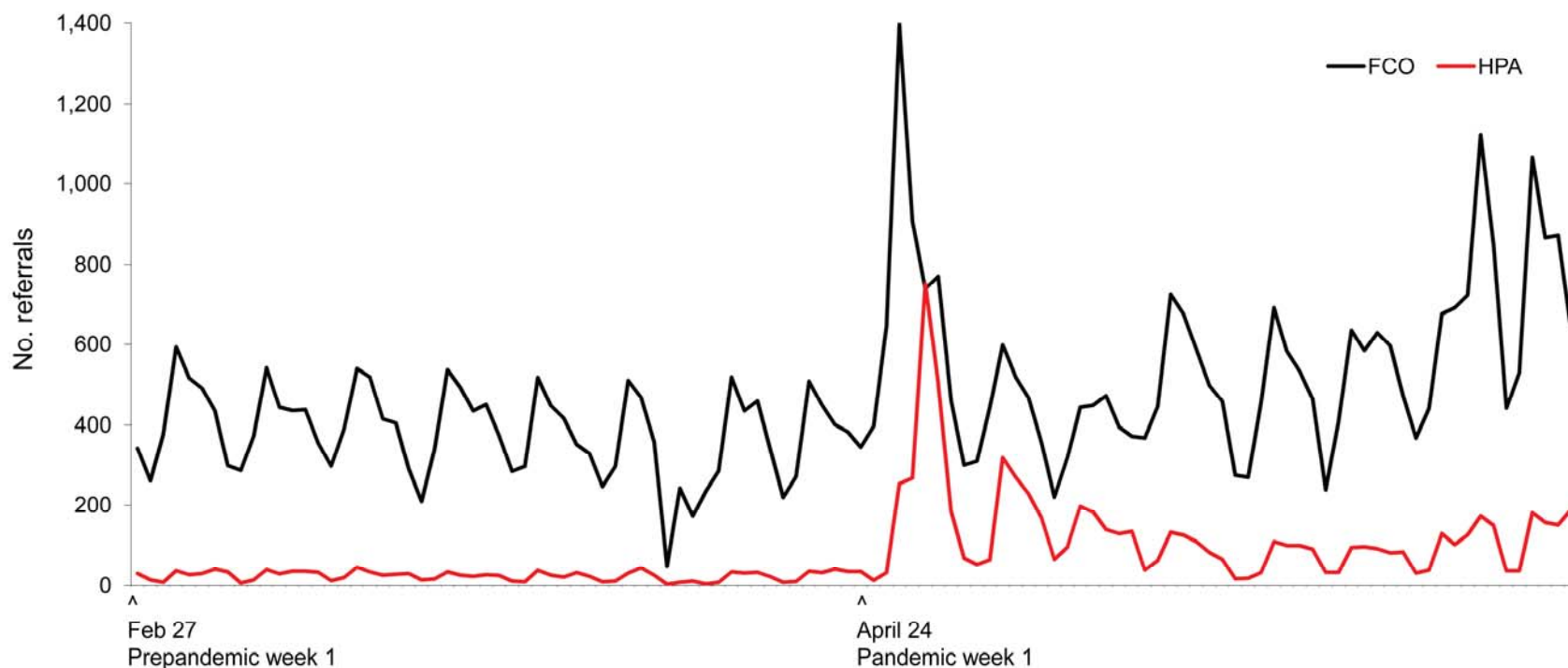
Typing of *Cryptosporidium* spp. has been undertaken by the UK *Cryptosporidium* Reference Unit since 1999. *C. parvum* was identified from

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Technical Appendix Figure 1. Visits to the National Travel Health Network and Centre (NaTHNaC) website 8 weeks before and 8 weeks after recognition of pandemic (H1N1) 2009 (prepandemic and pandemic periods, respectively), United Kingdom. Noteworthy dates during the first 8 weeks of pandemic influenza are highlighted. Weeks refer to the dates during 2009 before recognition of the pandemic and weeks during it.

Prepandemic period: week 1, 27 Feb–5 Mar; week 2, 6–12 Mar; week 3, 13–19 Mar; week 4, 20–26 Mar; week 5: 27 Mar–2 Apr; week 6, 3–9 Apr; week 7, 10–16 Apr; week 8, 17–23 Apr. Pandemic period: Week 1, 24–30 Apr; week 2, 1–7 May; week 3, 8–14 May; week 4, 15–21 May; week 5, 22–28 May; week 6, 29 May–4 Jun; week 7, 5–11 Jun; week 8, 12–18 Jun. *First situation update from the World Health Organization: April 24; †first clinical update post on the NaTHNaC website: April 27; ‡clinical updates posted on the NaTHNaC website; §worldwide influenza pandemic alert level raised to phase 6 by the World Health Organization: June 11.



Technical Appendix Figure 2. Websites referring traffic to the National Travel Health Network and Centre website before and during recognition of pandemic (H1N1) 2009 (prepandemic and pandemic periods, respectively), United Kingdom. Prepandemic period, February 27–April 23, 2009; pandemic period, April 24–June 18, 2009; FCO, Foreign and Commonwealth Office; HPA, Health Protection Agency.