

REFERENCES

- Altekruse, S. F., Stern, N. J., Fields, P. I., & Swerdlow, D. L. (1999). *Campylobacter jejuni*--an emerging foodborne pathogen. *Emerg Infect Dis*, 5(1), 28-35. doi: 10.3201/eid0501.990104
- Anderson, J., Horn, B. J., & Gilpin, B. J. (2012). The prevalence and genetic diversity of *Campylobacter* spp. in domestic 'backyard' poultry in Canterbury, New Zealand. *Zoonoses Public Health*, 59(1), 52-60. doi: 10.1111/j.1863-2378.2011.01418.x
- Bagavandas, M. (2015). Study of knowledge, attitude and practices regarding hygiene among abattoir workers in Kano state metropolitan, Nigeria. *Public Health Research Series*, 91-100.
- Bai, Y., Cui, S., Xu, X., & Li, F. (2014). Enumeration and characterization of *Campylobacter* species from retail chicken carcasses in Beijing, China. *Foodborne Pathog Dis*, 11(11), 861-867. doi: 10.1089/fpd.2014.1785
- Baker, R. C., Paredes, M. D., & Qureshi, R. A. (1987). Prevalence of *Campylobacter jejuni* in eggs and poultry meat in New York State. *Poult Sci*, 66(11), 1766-1770.
- Bakhshi, B., Kalantar, M., Rastegar-Lari, A., & Fallah, F. (2016). PFGE genotyping and molecular characterization of *Campylobacter* spp. isolated from chicken meat. *Iran J Vet Res*, 17(3), 177-183.
- Banowary, B., Dang, V. T., Sarker, S., Connolly, J. H., Chenu, J., Groves, P., . . . Ghorashi, S. A. (2015). Differentiation of *Campylobacter jejuni* and *Campylobacter coli* using multiplex-PCR and high resolution melt curve analysis. *PLoS One*, 10(9), e0138808. doi: 10.1371/journal.pone.0138808
- Barrett, T. J., Patton, C. M., & Morris, G. K. (1988). Differentiation of *Campylobacter* species using phenotypic characterization. *Lab Med*, 19, 96-102.

- BC Centre for Disease Control. (2015). British Columbia annual summary of reportable diseases 2014. *BC Centre for Disease Control*, Vancouver, British Columbia, Canada.
- Berger, S. (2017). *Infectious Diseases of Thailand: 2017 edition*. GIDEON Informatics Inc.
- Blaser, M. J. (1997). Epidemiologic and clinical features of *Campylobacter jejuni* infections. *J Infect Dis*, 176 Suppl 2, S103-105.
- Bolton, D. J. (2015). *Campylobacter* virulence and survival factors. *Food Microbiol*, 48, 99-108. doi: 10.1016/j.fm.2014.11.017
- Botteldoorn, N., Van Coillie, E., Piessens, V., Rasschaert, G., Debruyne, L., Heyndrickx, M., . . . Messens, W. (2008). Quantification of *Campylobacter* spp. in chicken carcass rinse by real-time PCR. *J Appl Microbiol*, 105(6), 1909-1918. doi: 10.1111/j.1365-2672.2008.03943.x
- Bouwknegt, M., van Pelt, W., & Havelaar, A. H. (2013). Scoping the impact of changes in population age-structure on the future burden of foodborne disease in The Netherlands, 2020–2060. *Int J Environ Res Publ Health*, 10(7), 2888–2896. doi: 10.3390/ijerph10072888
- Boysen, L., Nauta, M., & Rosenquist, H. (2016). *Campylobacter* spp. and *Escherichia coli* contamination of broiler carcasses across the slaughter line in Danish slaughterhouses. *Microbial Risk Analysis*, 2(Supplement C), 63-67. doi: 10.1016/j.mran.2016.05.005
- Butzler, J. P. (1978). Related vibrios in Africa. *Lancet*, ii, 858.
- Butzler, J. P. (2004). *Campylobacter*, from obscurity to celebrity. *Clin Microbiol Infect*, 10(10), 868-876. doi: 10.1111/j.1469-0691.2004.00983.x
- Butzler, J. P., & Skirrow, M. B. (1979). *Campylobacter* enteritis. *Clin Gastroenterol*, 8, 737–765.

- Carreira, A. C., & Cunha, M. V. (2015). Characterization of *Campylobacter jejuni* and *Campylobacter coli* genotypes in poultry flocks by restriction fragment length polymorphism (RFLP) analysis. *Methods Mol Biol*, 1247, 311-321. doi: 10.1007/978-1-4939-2004-4_22
- Centers for Disease Control and Prevention [CDC]. (2010). Preliminary FoodNet data on the incidence of infection with pathogens transmitted commonly through food-10 states, 2009. *MMWR. Morbidity and mortality weekly report*, 59(14), 418.
- CDC. (2011). Vital signs: incidence and trends of infection with pathogens transmitted commonly through food--foodborne diseases active surveillance network, 10 US sites, 1996-2010. *MMWR. Morbidity and mortality weekly report*, 60(22), 749.
- CDC. (2013). Incidence and trends of infection with pathogens transmitted commonly through food-foodborne diseases active surveillance network, 10 US sites, 1996-2012. *MMWR. Morbidity and mortality weekly report*, 62(15), 283.
- CDC. (2016). Infection with pathogens transmitted commonly through food and the effect of increasing use of culture-independent diagnostic tests on surveillance — foodborne diseases active surveillance network, 10 U.S. sites, 2012–2015. *MMWR. Morbidity and mortality weekly report*, 65(14), 368-371.
- Chantong, W., & Kaneene, J. B. (2011). Poultry raising systems and highly pathogenic avian influenza outbreaks in Thailand: the situation, associations, and impacts. *Southeast Asian J Trop Med Public Health*, 42(3), 596-608.
- Chen, J., Sun, X. T., Zeng, Z., & Yu, Y. Y. (2011). *Campylobacter* enteritis in adult patients with acute diarrhea from 2005 to 2009 in Beijing, China. *Chin Med J (Engl)*, 124(10), 1508-1512.
- Chiangmai Provincial Livestock Office. (2015). List of registered poultry slaughterhouse in Chiang Mai.
- Chokboonmongkol, C., Patchanee, P., Golz, G., Zessin, K. H., & Alter, T. (2013). Prevalence, quantitative load, and antimicrobial resistance of *Campylobacter* spp. from broiler ceca and broiler skin samples in Thailand. *Poult Sci*, 92(2), 462-467. doi: 10.3382/ps.2012-02599

- Choparakarn, K., & Wongpichet, K. (2007). Village chicken production systems in Thailand. Draft report submitted to the FAO as part of project GCP/RAS/228/GER.
- Chotinun, S. (2012). List of backyard poultry slaughterhouse in Chiang Mai.
- Chrystal, N. D., Hargraves, S. J., Boa, A. C., & Ironside, C. J. (2008). Counts of *Campylobacter* spp. and prevalence of *Salmonella* associated with New Zealand broiler carcasses. *J Food Prot*, 71(12), 2526-2532.
- Coker, A. O., Isokpehi, R. D., Thomas, B. N., Amisu, K. O., & Obi, C. L. (2002). Human campylobacteriosis in developing countries. *Emerg Infect Dis*, 8(3), 237-244. doi: 10.3201/eid0803.010233
- Colles, F. M., McCarthy, N. D., Layton, R., & Maiden, M. C. (2011). The prevalence of *Campylobacter* amongst a free-range broiler breeder flock was primarily affected by flock age. *PLoS One*, 6(12), e22825. doi: 10.1371/journal.pone.0022825
- Conan, A., Goutard, F. L., Sorn, S., & Vong, S. (2012). Biosecurity measures for backyard poultry in developing countries: a systematic review. *BMC Vet Res*, 8, 240. doi: 10.1186/1746-6148-8-240
- Davis, K. R., Dunn, A. C., Burnett, C., McCullough, L., Dimond, M., Wagner, J., . . . Nakashima, A. K. (2016). *Campylobacter jejuni* infections associated with raw milk consumption--Utah, 2014. *MMWR Morb Mortal Wkly Rep*, 65(12), 301-305. doi: 10.15585/mmwr.mm6512a1
- Davis, L., & DiRita, V. (2008). Growth and laboratory maintenance of *Campylobacter jejuni*. *Curr Protoc Microbiol*, Chapter 8, Unit 8A.1.1-8A.1.7. doi: 10.1002/9780471729259.mc08a01s10
- Dekeyser, P., Gossuin-Detrain, M., Butzler, J. P., & Sternon, J. (1972). Acute enteritis due to related vibrio: first positive stool cultures. *J Infect Dis*, 125(4), 390-392.
- Demirok, E., Veluz, G., Stuyvenberg, W. V., Castaneda, M. P., Byrd, A., & Alvarado, C. Z. (2013). Quality and safety of broiler meat in various chilling systems. *Poult Sci*, 92(4), 1117-1126. doi: 10.3382/ps.2012-02493

- Denis, M., Soumet, C., Rivoal, K., Ermel, G., Blivet, D., Salvat, G., & Colin, P. (1999). Development of a m-PCR assay for simultaneous identification of *Campylobacter jejuni* and *C. coli*. *Lett Appl Microbiol*, 29(6), 406-410.
- Domingues, A. R., Pires, S. M., Halasa, T., & Hald, T. (2012). Source attribution of human campylobacteriosis using a meta-analysis of case-control studies of sporadic infections. *Epidemiol Infect*, 140(6), 970-981. doi: 10.1017/s0950268811002676
- Duff, S. B., Scott, E. A., Mafilios, M. S., Todd, E. C., Krilov, L. R., Geddes, A. M., & Ackerman, S. J. (2003). Cost-effectiveness of a targeted disinfection program in household kitchens to prevent foodborne illnesses in the United States, Canada, and the United Kingdom. *J Food Prot*, 66(11), 2103-2115.
- Elvers, K. T., Morris, V. K., Newell, D. G., & Allen, V. M. (2011). Molecular tracking, through processing, of *Campylobacter* strains colonizing broiler flocks. *Appl Environ Microbiol*, 77(16), 5722-5729. doi: 10.1128/aem.02419-10
- Fanatico, A., & Ellis, K. (2017). *Small-scale poultry processing*. National Center for Appropriate Technology.
- Figuerola, G., Troncoso, M., Lopez, C., Rivas, P., & Toro, M. (2009). Occurrence and enumeration of *Campylobacter* spp. during the processing of Chilean broilers. *BMC Microbiol*, 9, 94. doi: 10.1186/1471-2180-9-94
- Food and Agriculture Organization of the United Nations [FAO]. (2004). FAO recommendations on the prevention, control and eradication of highly pathogenic avian influenza in Asia. *FAO Position Paper*, September 2004.
- Garin, B., Gouali, M., Wouafo, M., Perchec, A. M., Pham, M. T., Ravaonindrina, N., . . . Pouillot, R. (2012). Prevalence, quantification and antimicrobial resistance of *Campylobacter* spp. on chicken neck-skins at points of slaughter in 5 major cities located on 4 continents. *Int J Food Microbiol*, 157(1), 102-107. doi: 10.1016/j.ijfoodmicro.2012.04.020
- Gibbens, J. C., Pascoe, S. J., Evans, S. J., Davies, R. H., & Sayers, A. R. (2001). A trial of biosecurity as a means to control *Campylobacter* infection of broiler chickens. *Prev Vet Med*, 48(2), 85-99.

- Gruntar, I., Biasizzo, M., Kusar, D., Pate, M., & Ocepek, M. (2015). *Campylobacter jejuni* contamination of broiler carcasses: Population dynamics and genetic profiles at slaughterhouse level. *Food Microbiol*, 50, 97-101. doi: 10.1016/j.fm.2015.03.007
- Guerin, M. T., Sir, C., Sargeant, J. M., Waddell, L., O'Connor, A. M., Wills, R. W., . . . Byrd, J. A. (2010). The change in prevalence of *Campylobacter* on chicken carcasses during processing: a systematic review. *Poult Sci*, 89(5), 1070-1084. doi: 10.3382/ps.2009-00213
- Guyard-Nicodeme, M., Rivoal, K., Houard, E., Rose, V., Quesne, S., Mourand, G., . . . Chemaly, M. (2015). Prevalence and characterization of *Campylobacter jejuni* from chicken meat sold in French retail outlets. *Int J Food Microbiol*, 203, 8-14. doi: 10.1016/j.ijfoodmicro.2015.02.013
- Han, X., Zhu, D., Lai, H., Zeng, H., Zhou, K., Zou, L., . . . Liu, S. (2016). Prevalence, antimicrobial resistance profiling and genetic diversity of *Campylobacter jejuni* and *Campylobacter coli* isolated from broilers at slaughter in China. *Food Control*, 69(Supplement C), 160-170. doi: 10.1016/j.foodcont.2016.04.051
- Hara-Kudo, Y., & Takatori, K. (2011). Contamination level and ingestion dose of foodborne pathogens associated with infections. *Epidemiol Infect*, 139(10), 1505-1510. doi: 10.1017/s095026881000292x
- Harvala, H., Rosendal, T., Lahti, E., Engvall, E. O., Brytting, M., Wallensten, A., & Lindberg, A. (2016). Epidemiology of *Campylobacter jejuni* infections in Sweden, November 2011-October 2012: is the severity of infection associated with *C. jejuni* sequence type? *Infect Ecol Epidemiol*, 6, 31079. doi: 10.3402/iee.v6.31079
- Hazeleger, W. C., Wouters, J. A., Rombouts, F. M., & Abee, T. (1998). Physiological activity of *Campylobacter jejuni* far below the minimal growth temperature. *Appl Environ Microbiol*, 64(10), 3917-3922.
- Hue, O., Allain, V., Laisney, M. J., Le Bouquin, S., Lalande, F., Petetin, I., . . . Chemaly, M. (2011). *Campylobacter* contamination of broiler caeca and carcasses at the slaughterhouse and correlation with *Salmonella* contamination. *Food Microbiol*, 28(5), 862-868. doi: 10.1016/j.fm.2010.11.003

- Hue, O., Le Bouquin, S., Laisney, M. J., Allain, V., Lalande, F., Petetin, I., . . . Chemaly, M. (2010). Prevalence of and risk factors for *Campylobacter* spp. contamination of broiler chicken carcasses at the slaughterhouse. *Food Microbiol*, 27(8), 992-999. doi: 10.1016/j.fm.2010.06.004
- Hughes, R. A., & Cornblath, D. R. (2005). Guillain-Barré syndrome. *Lancet*, 366(9497), 1653-1666. doi: 10.1016/s0140-6736(05)67665-9
- Hughes, R. A., & Rees, J. H. (1997). Clinical and epidemiologic features of Guillain-Barré syndrome. *J Infect Dis*, 176 Suppl 2, S92-98.
- Humphries, R. M., & Linscott, A. J. (2015). Laboratory diagnosis of bacterial gastroenteritis. *Clin Microbiol Rev*, 28(1), 3-31. doi: 10.1128/cmr.00073-14
- Hunt, J. M., Abeyta, C., & Tran, T. (2001). Bacteriological analytical manual, Chapter 7 *Campylobacter*. U.S. Food and Drug Administration. Retrieved from <https://www.fda.gov/Food/FoodScienceResearch/LaboratoryMethods/ucm072616.htm>
- Hussein, K., Raz-Pasteur, A., Shachor-Meyouhas, Y., Geffen, Y., Oren, I., Paul, M., & Kassis, I. (2016). *Campylobacter* bacteraemia: 16 years of experience in a single centre. *Infect Dis (Lond)*, 48(11-12), 796-799. doi: 10.1080/23744235.2016.1195916
- Ingmer, H. (2011). Challenges of *Campylobacter jejuni* in poultry production. *Int J Food Microbiol*, 145 Suppl 1, S110. doi: 10.1016/j.ijfoodmicro.2010.12.015
- International Organization for Standardization [ISO]. (2006). ISO 10272-1 Microbiology of food and animal feeding stuffs – Horizontal method for detection and enumeration of *Campylobacter* spp. *Part 1: Detection method*.
- International Organization for Standardization [ISO]. (2006). ISO 10272-2 Microbiology of food and animal feeding stuffs – Horizontal method for detection and enumeration of *Campylobacter* spp. *Part 2: Colony-count technique*.
- Ipsos Business Consulting. (2013). Thailand's Poultry Industry.

- Ivanova, M., Singh, R., Dharmasena, M., Gong, C., Krastanov, A., & Jiang, X. (2014). Rapid identification of *Campylobacter jejuni* from poultry carcasses and slaughtering environment samples by real-time PCR. *Poult Sci*, 93(6), 1587-1597. doi: 10.3382/ps.2013-03736
- Izat, A. L., Gardner, F. A., Denton, J. H., & Golan, F. A. (1988). Incidence and level of *Campylobacter jejuni* in broiler processing. *Poult Sci*, 67(11), 1568-1572.
- Jaturasitha, S., Leangwunta, V., Leotaragul, A., Phongphaew, A., Apichartsrungkoon, T., Simasathitkul, N., ... & Deutscher Tropentag. (2002, October). A comparative study of Thai native chicken and broiler on productive performance, carcass and meat quality. In *Proceedings of Deutscher Tropentag* (p. 146).
- Johannessen, G. S., Johnsen, G., Okland, M., Cudjoe, K. S., & Hofshagen, M. (2007). Enumeration of thermotolerant *Campylobacter* spp. from poultry carcasses at the end of the slaughter-line. *Lett Appl Microbiol*, 44(1), 92-97. doi: 10.1111/j.1472-765X.2006.02026.
- Jones, F. S., Orcutt, M., & Little, R. B. (1931). Vibrios (*Vibrio jejuni*, n. sp.) associated with intestinal disorders of cows and calves. *J Exp Med*, 53(6), 853-863.
- Kaakoush, N. O., Castaño-Rodríguez, N., Mitchell, H. M., & Man, S. M. (2015). Global epidemiology of *Campylobacter* infection. *Clin Microbiol Rev*, 28(3), 687-720. doi: 10.1128/CMR.00006-15
- Kamei, K., Asakura, M., Somroop, S., Hatanaka, N., Hinenoya, A., Nagita, A., . . . Yamasaki, S. (2014). A PCR-RFLP assay for the detection and differentiation of *Campylobacter jejuni*, *C. coli*, *C. fetus*, *C. hyointestinalis*, *C. lari*, *C. helveticus* and *C. upsaliensis*. *J Med Microbiol*, 63(Pt 5), 659-666. doi: 10.1099/jmm.0.071498-0
- KasetPrice. (2017). Chicken price. Retrieved from <https://www.kasetprice.com>
- King, E. O. (1957). Human infections with *Vibrio fetus* and a closely related vibrio. *J Infect Dis*, 101(2), 119-128.
- King E. O. (1962). The laboratory recognition of *Vibrio fetus* and a closely related *Vibrio* isolated from cases of human vibriosis. *Ann NY Acad Sci*, 98, 700-711. doi: 10.1111/j.1749-6632.1962.tb30591.x

- Kirk, M. D., Pires, S. M., Black, R. E., Caipo, M., Crump, J. A., Devleesschauwer, B., . . . Angulo, F. J. (2015). World Health Organization estimates of the global and regional disease burden of 22 foodborne bacterial, protozoal, and viral diseases, 2010: A data synthesis. *PLoS Med*, 12(12), e1001921. doi: 10.1371/journal.pmed.1001921
- Kist, M. (1985). The historical background of *Campylobacter* infection: new aspects. In *Proceedings of the 3rd International Workshop on Campylobacter Infections* (Vol. 7, pp. 7-10). Ottawa.
- Kist, M. (1986). [Who discovered *Campylobacter jejuni/coli*? A review of hitherto disregarded literature]. *Zentralbl Bakteriol Mikrobiol Hyg A*, 261(2), 177-186.
- Kothary, M. H., & Babu, U. S. (2001). Infective dose of foodborne pathogens in volunteers: a review. *J food safety*, 21(1), 49-68. doi: 10.1111/j.1745-4565.2001.tb00307.x
- Kovanen, S. M., Kivisto, R. I., Rossi, M., Schott, T., Karkkainen, U. M., Tuuminen, T., . . . Hanninen, M. L. (2014). Multilocus sequence typing (MLST) and whole-genome MLST of *Campylobacter jejuni* isolates from human infections in three districts during a seasonal peak in Finland. *J Clin Microbiol*, 52(12), 4147-4154. doi: 10.1128/jcm.01959-14
- Kryger, K. N., Thomsen, K., Whyte, M., & Dissing, M. (2010). Smallholder poultry production: Livelihoods, food security and sociocultural significance. Retrieved from www.fao.org/docrep/013/al674e/al674e00.pdf
- Kubota, K., Kasuga, F., Iwasaki, E., Inagaki, S., Sakurai, Y., Komatsu, M., . . . Morikawa, K. (2011). Estimating the burden of acute gastroenteritis and foodborne illness caused by *Campylobacter*, *Salmonella*, and *Vibrio parahaemolyticus* by using population-based telephone survey data, Miyagi Prefecture, Japan, 2005 to 2006. *J Food Prot*, 74(10), 1592-1598. doi: 10.4315/0362-028x.jfp-10-387
- Kuhn, K. G., Falkenhorst, G., Ceper, T., Dalby, T., Ethelberg, S., Molbak, K., & Krogfelt, K. A. (2012). Detection of antibodies to *Campylobacter* in humans using enzyme-linked immunosorbent assays: a review of the literature. *Diagn Microbiol Infect Dis*, 74(2), 113-118. doi: 10.1016/j.diagmicrobio.2012.06.004

- Lahti, E., Löfdahl, M., Ågren, J., Hansson, I., & Olsson Engvall, E. (2017). Confirmation of a campylobacteriosis outbreak associated with chicken liver pâté using PFGE and WGS. *Zoonoses Public Health*, 64(1), 14-20. doi: 10.1111/zph.12272
- Lahti, E., Rehn, M., Ockborn, G., Hansson, I., Ågren, J., Engvall, E. O., & Jernberg, C. (2017). Outbreak of campylobacteriosis following a dairy farm visit: confirmation by genotyping. *Foodborne Pathog Dis*, 14(6), 326-332. doi: 10.1089/fpd.2016.2257
- Levin, R. E. (2007). *Campylobacter jejuni*: a review of its characteristics, pathogenicity, ecology, distribution, subspecies characterization and molecular methods of detection. *Food Biotechnol*, 21(4), 271-347. doi: 10.1080/08905430701536565
- Levy, A. J. (1946). A gastro-enteritis outbreak probably due to a bovine strain of vibrio. *Yale J Biol Med*, 18, 243-258.
- Li, L., Mendis, N., Trigui, H., Oliver, J. D., & Faucher, S. P. (2014). The importance of the viable but non-culturable state in human bacterial pathogens. *Front Microbiol*, 5, 258. doi: 10.3389/fmicb.2014.00258
- Linton, D., Owen, R. J., & Stanley, J. (1996). Rapid identification by PCR of the genus *Campylobacter* and of five *Campylobacter* species enteropathogenic for man and animals. *Res Microbiol*, 147(9), 707-718.
- Mäesaar, M., Praakle, K., Meremäe, K., Kramarenko, T., Sögel, J., Viltrop, A., . . . Roasto, M. (2014). Prevalence and counts of *Campylobacter* spp. in poultry meat at retail level in Estonia. *Food Control*, 44(Supplement C), 72-77. doi: 10.1016/j.foodcont.2014.03.044
- Marasini, D., & Fakhr, M. K. (2014). Exploring PFGE for detecting large plasmids in *Campylobacter jejuni* and *Campylobacter coli* isolated from various retail meats. *Pathogens*, 3(4), 833-844. doi: 10.3390/pathogens3040833
- Mason, J., Iturriza-Gomara, M., O'Brien, S. J., Ngwira, B. M., Dove, W., Maiden, M. C., & Cunliffe, N. A. (2013). *Campylobacter* infection in children in Malawi is common and is frequently associated with enteric virus co-infections. *PLoS One*, 8(3), e59663. doi: 10.1371/journal.pone.0059663

- McGrogan, A., Madle, G. C., Seaman, H. E., & de Vries, C. S. (2009). The epidemiology of Guillain-Barré syndrome worldwide. A systematic literature review. *Neuroepidemiology*, 32(2), 150-163. doi: 10.1159/000184748
- Melero, B., Cocolin, L., Rantsiou, K., Jaime, I., & Rovira, J. (2011). Comparison between conventional and qPCR methods for enumerating *Campylobacter jejuni* in a poultry processing plant. *Food Microbiol*, 28(7), 1353-1358. doi: 10.1016/j.fm.2011.06.006
- Miwa, N., Takegahara, Y., Terai, K., Kato, H., & Takeuchi, T. (2003). *Campylobacter jejuni* contamination on broiler carcasses of *C. jejuni*-negative flocks during processing in a Japanese slaughterhouse. *Int J Food Microbiol*, 84(1), 105-109.
- Moffatt, C. R., Greig, A., Valcanis, M., Gao, W., Seemann, T., Howden, B. P., & Kirk, M. D. (2016). A large outbreak of *Campylobacter jejuni* infection in a university college caused by chicken liver pâté, Australia, 2013. *Epidemiol Infect*, 144(14), 2971-2978. doi: 10.1017/s0950268816001187
- Mukherjee, P., Ramamurthy, T., Bhattacharya, M. K., Rajendran, K., & Mukhopadhyay, A. K. (2013). *Campylobacter jejuni* in hospitalized patients with diarrhea, Kolkata, India. *Emerg Infect Dis*, 19(7), 1155-1156. doi: 10.3201/eid1907.121278
- NaRanong, V. (2007). Structural changes in Thailand's poultry sector and its social implications. *Thailand Development Research Institute. Bangkok, Thailand*.
- National Veterinary Institute. (2015). Surveillance of infectious diseases in animals and humans in Sweden 2014. *National Veterinary Institute (SVA)*, Uppsala, Sweden.
- Newell, D. G., & Fearnley, C. (2003). Sources of *Campylobacter* colonization in broiler chickens. *Appl Environ Microbiol*, 69(8), 4343-4351.
- Newell, D. G., Shreeve, J. E., Toszeghy, M., Domingue, G., Bull, S., Humphrey, T., & Mead, G. (2001). Changes in the carriage of *Campylobacter* strains by poultry carcasses during processing in abattoirs. *Appl Environ Microbiol*, 67(6), 2636-2640. doi: 10.1128/aem.67.6.2636-2640.2001
- New Zealand Ministry of Health. (2001). *Campylobacter*. Environmental Science and Research Ltd. Retrieved from http://www.foodsafety.govt.nz/elibrary/industry/Campylobacter-Organism_Causes.pdf

- Nielsen, H. L., Ejlersen, T., Engberg, J., & Nielsen, H. (2013). High incidence of *Campylobacter concisus* in gastroenteritis in North Jutland, Denmark: a population-based study. *Clin Microbiol Infect*, 19(5), 445-450. doi: 10.1111/j.1469-0691.2012.03852.x
- NNDSS Annual Report Writing Group. (2015). Australia's notifiable disease status, 2012: Annual report of the National Notifiable Diseases Surveillance System. *Communicable diseases intelligence quarterly report*, 39(1), E46.
- Noormohamed, A., & Fakhr, M. K. (2014). Molecular typing of *Campylobacter jejuni* and *Campylobacter coli* isolated from various retail meats by MLST and PFGE. *Foods*, 3(1), 82-93. doi: 10.3390/foods3010082
- Nyati, K. K., & Nyati, R. (2013). Role of *Campylobacter jejuni* infection in the pathogenesis of Guillain-Barré syndrome: an update. *Biomed Res Int*, 2013, 852195. doi: 10.1155/2013/852195
- O'Brien, S. J. (2017). The consequences of *Campylobacter* infection. *Curr Opin Gastroenterol*, 33(1), 14-20. doi: 10.1097/mog.0000000000000329
- On, S. L., & Harrington, C. S. (2000). Identification of taxonomic and epidemiological relationships among *Campylobacter* species by numerical analysis of AFLP profiles. *FEMS Microbiol Lett*, 193(1), 161-169.
- O'Reilly, C. E., Jaron, P., Ochieng, B., Nyaguara, A., Tate, J. E., Parsons, M. B., . . . Mintz, E. (2012). Risk factors for death among children less than 5 years old hospitalized with diarrhea in rural western Kenya, 2005-2007: a cohort study. *PLoS Med*, 9(7), e1001256. doi: 10.1371/journal.pmed.1001256
- Osiriphun, S., Iamtaweejaloen, P., Kooprasertying, P., Koetsinchai, W., Tuitemwong, K., Erickson, L. E., & Tuitemwong, P. (2011). Exposure assessment and process sensitivity analysis of the contamination of *Campylobacter* in poultry products. *Poult Sci*, 90(7), 1562-1573. doi: 10.3382/ps.2009-00577

- Pacholewicz, E., Swart, A., Wagenaar, J. A., Lipman, L. J., & Havelaar, A. H. (2016). Explanatory variables associated with *Campylobacter* and *Escherichia coli* concentrations on broiler chicken carcasses during processing in two slaughterhouses. *J Food Prot*, 79(12), 2038-2047. doi: 10.4315/0362-028x.jfp-16-064
- Padungtod, P., & Kaneene, J. B. (2005). *Campylobacter* in food animals and humans in northern Thailand. *J Food Prot*, 68(12), 2519-2526.
- Parkar, S. F., Sachdev, D., deSouza, N., Kamble, A., Suresh, G., Munot, H., . . . Kapadnis, B. (2013). Prevalence, seasonality and antibiotic susceptibility of thermophilic *Campylobacters* in ceca and carcasses of poultry birds in the “live-bird market”. *Afr J Microbiol Res*, 7(21), 2442-2453. doi: 10.5897/ajmr2012.2323
- Pedonese, F., Nuvoloni, R., Turchi, B., Torracca, B., Di Giannatale, E., Marotta, F., & Cerri, D. (2017). Prevalence, phenotypic and genetic diversity of *Campylobacter* in poultry fresh meat and poultry products on retail sale in Tuscany (Italy). *Vet Ital*, 53(1), 29-37. doi: 10.12834/VetIt.836.4107.2
- Perdoncini, G., Sierra-Arguello, Y. M., Lima, L. M., Trindade, M. M., Gomes, M. J. P., Santos, L. R. D., ... & Nascimento, V. P. D. (2015). Occurrence of *Campylobacter jejuni* and *C. coli* on broiler carcasses after chilling in southern Brazil. *Pesqui Vet Brasil*, 35(4), 349-352. doi: 10.1590/S0100-736X2015000400006
- Petchseechoung, W. (2016). Frozen & processed chicken industry. Thailand Industry Outlook 2016-18. Krungsri Research.
- Pham, N. T., Ushijima, H., Trinh, Q. D., Khamrin, P., Komine-Aizawa, S., Okitsu, S., . . . Hayakawa, S. (2015). Prevalence and antimicrobial resistance of *Campylobacter jejuni* and *Campylobacter coli* from adult hospitalized patients with diarrhea in Thailand. *Clin Lab*, 61(11), 1809-1812.
- Poropatich, K. O., Walker, C. L., & Black, R. E. (2010). Quantifying the association between *Campylobacter* infection and Guillain-Barré syndrome: a systematic review. *J Health Popul Nutr*, 28(6), 545-552.

- Prachantasena, S., Charununtakorn, P., Muangnoicharoen, S., Hankla, L., Techawal, N., Chaveerach, P., . . . Luangtongkum, T. (2016). Distribution and genetic profiles of *Campylobacter* in commercial broiler production from breeder to slaughter in Thailand. *PLoS One*, 11(2), e0149585. doi: 10.1371/journal.pone.0149585
- Rees, J. H., Thompson, R. D., Smeeton, N. C., & Hughes, R. A. (1998). Epidemiological study of Guillain-Barré syndrome in south east England. *J Neurol Neurosurg Psychiatry*, 64(1), 74-77.
- Reich, F., Atanassova, V., Haunhorst, E., & Klein, G. (2008). The effects of *Campylobacter* numbers in ceca on the contamination of broiler carcasses with *Campylobacter*. *Int J Food Microbiol*, 127(1), 116-120.
- Rejab, S. B., Zessin, K. H., Fries, R., & Patchanee, P. (2012). *Campylobacter* in chicken carcasses and slaughterhouses in Malaysia. *Southeast Asian J Trop Med Public Health*, 43(1), 96-104.
- Rivoal, K., Ragimbeau, C., Salvat, G., Colin, P., & Ermel, G. (2005). Genomic diversity of *Campylobacter coli* and *Campylobacter jejuni* isolates recovered from free-range broiler farms and comparison with isolates of various origins. *Appl Environ Microbiol*, 71(10), 6216-6227. doi: 10.1128/aem.71.10.6216-6227.2005
- Rosenquist, H., Sommer, H. M., Nielsen, N. L., & Christensen, B. B. (2006). The effect of slaughter operations on the contamination of chicken carcasses with thermotolerant *Campylobacter*. *Int J Food Microbiol*, 108(2), 226-232. doi: 10.1016/j.ijfoodmicro.2005.12.007
- Rushton, J., Viscarra, R., Bleich, E. G., & McLeod, A. (2005). Impact of avian influenza outbreaks in the poultry sectors of five South East Asian countries (Cambodia, Indonesia, Lao PDR, Thailand, Viet Nam) outbreak costs, responses and potential long term control. Retrieved from www.fao.org/docs/eims/upload/214194/rushton-comp.pdf
- Sadkowska-Todys, M., & Kucharczyk, B. (2016). Campylobacteriosis in Poland in 2013 and 2014. *Przegl Epidemiol*, 70(2), 209-215.

- Saengthongpinit, C., Viriyarampa, S., & Sakpuaram, T. (2005). Prevalence of *Campylobacter* spp. in chicken from retail markets in Nakhon Pathom province. *Kasetsart J*, 39, 633-637.
- Scherer, K., Bartelt, E., Sommerfeld, C., & Hildebrandt, G. (2006). Quantification of *Campylobacter* on the surface and in the muscle of chicken legs at retail. *J Food Prot*, 69(4), 757-761.
- Schielke, A., Rosner, B. M., & Stark, K. (2014). Epidemiology of campylobacteriosis in Germany - insights from 10 years of surveillance. *BMC Infect Dis*, 14, 30. doi: 10.1186/1471-2334-14-30
- Schouls, L. M., Reulen, S., Duim, B., Wagenaar, J. A., Willems, R. J., Dingle, K. E., . . . Van Embden, J. D. (2003). Comparative genotyping of *Campylobacter jejuni* by amplified fragment length polymorphism, multilocus sequence typing, and short repeat sequencing: strain diversity, host range, and recombination. *J Clin Microbiol*, 41(1), 15-26.
- Sears, A., Baker, M. G., Wilson, N., Marshall, J., Muellner, P., Campbell, D. M., . . . French, N. P. (2011). Marked campylobacteriosis decline after interventions aimed at poultry, New Zealand. *Emerg Infect Dis*, 17(6), 1007-1015. doi: 10.3201/eid1706.101272
- Seliwiorstow, T., Baré, J., Berkvens, D., Van Damme, I., Uyttendaele, M., & De Zutter, L. (2016). Identification of risk factors for *Campylobacter* contamination levels on broiler carcasses during the slaughter process. *Int J Food Microbiol*, 226, 26-32. doi: 10.1016/j.ijfoodmicro.2016.03.010
- Seliwiorstow, T., Baré, J., Van Damme, I., Gisbert Algaba, I., Uyttendaele, M., & De Zutter, L. (2016). Transfer of *Campylobacter* from a positive batch to broiler carcasses of a subsequently slaughtered negative batch: a quantitative approach. *J Food Prot*, 79(6), 896-901. doi: 10.4315/0362-028x.jfp-15-486
- Silverside, D., & Jones, M. (1992). *Small-scale poultry processing*. FAO. Retrieved from <http://www.fao.org/docrep/003/t0561e/T0561E00.htm>

- Skarp, C. P. A., Hänninen, M. L., & Rautelin, H. I. K. (2016). Campylobacteriosis: the role of poultry meat. *Clin Microbiol Infect*, 22(2), 103-109. doi: 10.1016/j.cmi.2015.11.019
- Smith, T., & Taylor, M. S. (1919). Some morphological and biological characters of the spirilla (*Vibrio fetus*, n. sp.) associated with disease of the fetal membranes in cattle. *J Exp Med*, 30(4), 299-311.
- Sommer, H. M., Høg, B. B., Larsen, L. S., Sørensen, A. I. V., Williams, N., Merga, J. Y., . . . Rosenquist, H. (2016). Analysis of farm specific risk factors for *Campylobacter* colonization of broilers in six European countries. *Microbial Risk Analysis*, 2(Supplement C), 16-26. doi: 10.1016/j.mran.2016.06.002
- Steens, A., Eriksen, H. M., & Blystad, H. (2014). What are the most important infectious diseases among those ≥ 65 years: a comprehensive analysis on notifiable diseases, Norway, 1993-2011. *BMC Infect Dis*, 14, 57. doi: 10.1186/1471-2334-14-57
- Stone, D., Davis, M., Baker, K., Besser, T., Roopnarine, R., & Sharma, R. (2013). MLST genotypes and antibiotic resistance of *Campylobacter* spp. isolated from poultry in Grenada. *Biomed Res Int*, 2013, 794643. doi: 10.1155/2013/794643
- Stucki, U., Frey, J., Nicolet, J., & Burnens, A. P. (1995). Identification of *Campylobacter jejuni* on the basis of a species-specific gene that encodes a membrane protein. *J Clin Microbiol*, 33(4), 855-859.
- Tam, C. C., Rodrigues, L. C., Viviani, L., Dodds, J. P., Evans, M. R., Hunter, P. R., . . . O'Brien, S. J. (2012). Longitudinal study of infectious intestinal disease in the UK (IID2 study): incidence in the community and presenting to general practice. *Gut*, 61(1), 69-77. doi: 10.1136/gut.2011.238386
- Thailand Department of Livestock Development [DLD]. (2015). Information of animal farmers at provincial level, 2015 (in Thai). Information and Communication Technology Center. Retrieved from <http://ict.dld.go.th/th2/index.php/th/report/447-report-thailand-livestock/reportservey2558-1/869-report-survey58>
- Thailand Department of Livestock Development [DLD]. (2016). List of broiler farms. The Fifth Regional Livestock Office, Ministry of Agriculture and Cooperatives.

- Thailand Ministry of Agriculture and Cooperatives. (2006). Thai agricultural standard, TAS 9008-2006: Good manufacturing practices for poultry abattoir. *National Bureau of Agricultural Commodity and Food Standards. Bangkok, Thailand*
- Thailand Ministry of Foreign Affairs. (2016). The poultry sector in Thailand. Netherlands Embassy in Bangkok.
- Thai Meteorological Department. (2014). Seasons in Thailand. Retrieved from <https://www.tmd.go.th/info/info.php?FileID=23>
- Toplak, N., Kovač, M., Piskernik, S., Možina, S. S., & Jeršek, B. (2012). Detection and quantification of *Campylobacter jejuni* and *Campylobacter coli* using real-time multiplex PCR. *J Appl Microbiol*, 112(4), 752-764. doi: 10.1111/j.1365-2672.2012.05235.x
- Torrallbo, A., Borge, C., García-Bocanegra, I., Méric, G., Perea, A., & Carbonero, A. (2015). Higher resistance of *Campylobacter coli* compared to *Campylobacter jejuni* at chicken slaughterhouse. *Comp Immunol Microbiol Infect Dis*, 39, 47-52. doi: 10.1016/j.cimid.2015.02.003
- United States Department of Agriculture [USDA]. (2016). Livestock and poultry: world markets and trade. Foreign Agricultural Service, Office of Global Analysis.
- United States Department of Agriculture [USDA]. (2017). Livestock and poultry: world markets and trade. Economics, Statistics and Market Information System. Retrieved from <http://usda.mannlib.cornell.edu/MannUsdviewDocumentInfo.do?documentID=1488>
- United States Department of Agriculture [USDA]. (2014). *Thailand poultry and products annual 2014*. Global Agricultural Information Network. Retrieved from <http://www.thefarmsite.com/reports/contents/ThailandPoultry8Sept2014.pdf>
- van den Berg, B., Bunschoten, C., van Doorn, P. A., & Jacobs, B. C. (2013). Mortality in Guillain-Barré syndrome. *Neurology*, 80(18), 1650-1654. doi: 10.1212/WNL.0b013e3182904fcc

- Wang, G., Clark, C. G., Taylor, T. M., Pucknell, C., Barton, C., Price, L., . . . Rodgers, F. G. (2002). Colony multiplex PCR assay for identification and differentiation of *Campylobacter jejuni*, *C. coli*, *C. lari*, *C. upsaliensis*, and *C. fetus* subsp. *fetus*. *J Clin Microbiol*, 40(12), 4744-4747.
- Wei, B., Cha, S.-Y., Yoon, R.-H., Kang, M., Roh, J.-H., Seo, H.-S., . . . Jang, H.-K. (2016). Prevalence and antimicrobial resistance of *Campylobacter* spp. isolated from retail chicken and duck meat in South Korea. *Food Control*, 62(Supplement C), 63-68. doi: 10.1016/j.foodcont.2015.10.013
- Weinberger, M., Lerner, L., Valinsky, L., Moran-Gilad, J., Nissan, I., Agmon, V., & Peretz, C. (2013). Increased incidence of *Campylobacter* spp. infection and high rates among children, Israel. *Emerg Infect Dis*, 19(11), 1828-1831. doi: 10.3201/eid1911.120900
- WHO. (2016). *Campylobacter*. Fact sheet. Retrieved from <http://www.who.int/mediacentre/factsheets/fs255/en/>
- Wieczorek, K., & Osek, J. (2015). A five-year study on prevalence and antimicrobial resistance of *Campylobacter* from poultry carcasses in Poland. *Food Microbiol*, 49, 161-165. doi: 10.1016/j.fm.2015.02.006
- Williams, A., & Oyarzabal, O. A. (2012). Prevalence of *Campylobacter* spp. in skinless, boneless retail broiler meat from 2005 through 2011 in Alabama, USA. *BMC Microbiol*, 12, 184. doi: 10.1186/1471-2180-12-184
- Willis, W. L., Murray, C., & Raczkowski, C. W. (1996). The influence of feed and water withdrawal on *Campylobacter jejuni* detection and yield of broilers. *J Appl Poultry Res*, 5(3), 210-214.
- Wilson, D. J., Gabriel, E., Leatherbarrow, A. J., Cheesbrough, J., Gee, S., Bolton, E., . . . Diggle, P. J. (2008). Tracing the source of campylobacteriosis. *PLoS Genet*, 4(9), e1000203. doi: 10.1371/journal.pgen.1000203
- World Health Organization [WHO]. (2013). The global view of campylobacteriosis: report of an expert consultation, Utrecht, Netherlands, 9-11 July 2012. Retrieved from www.who.int/iris/handle/10665/80751

- World Weather Online. (2016). Chiang Mai monthly climate. Retrieved from <https://www.worldweatheronline.com/chiang-mai-weather-averages/chiang-mai/th.aspx>
- Yoo, J. H., Choi, N. Y., Bae, Y. M., Lee, J. S., & Lee, S. Y. (2014). Development of a selective agar plate for the detection of *Campylobacter* spp. in fresh produce. *Int J Food Microbiol*, 189, 67-74. doi: 10.1016/j.ijfoodmicro.2014.07.032
- Yuki, N. (2007). *Campylobacter* sialyltransferase gene polymorphism directs clinical features of Guillain-Barré syndrome. *J Neurochem*, 103 Suppl 1, 150-158. doi: 10.1111/j.1471-4159.2007.04707.x
- Zaidi, M. B., Campos, F. D., Estrada-García, T., Gutierrez, F., León, M., Chim, R., & Calva, J. J. (2012). Burden and transmission of zoonotic foodborne disease in a rural community in Mexico. *Clin Infect Dis*, 55(1), 51-60. doi: 10.1093/cid/cis300
- Zendehbad, B., Khayatzaheh, J., & Alipour, A. (2015). Prevalence, seasonality and antibiotic susceptibility of *Campylobacter* spp. isolates of retail broiler meat in Iran. *Food Control*, 53(Supplement C), 41-45. doi: 10.1016/j.foodcont.2015.01.008