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## **Wood [*née* Chick], Frances (1883–1919)**

**Wood [*née* Chick], Frances** (1883–1919), medical statistician, was born at 5 Newman Street, London, on Christmas Day 1883 to Samuel Chick (1841–1925), a prosperous lace dealer and property developer, and his wife, Emma (*née* Hooley) (1844–1931). Frances and her six sisters all went to Notting Hill High School, a recently opened but highly successful girls' school with a strong science focus. Frances Chick was there from 1897 to 1903, achieving distinction both in and outside the classroom. She went on to University College, London (UCL), in 1904 and graduated in 1908 with a second-class honours degree (BSc) in chemistry. While at UCL she met Sydney Herbert Wood (1884–1958), a fellow chemistry student, and they married on 27 July 1911. He joined the Board of Education in 1910 as an inspector and remained there throughout his career, ending up as principal assistant secretary.

Frances left UCL to take up a post as research chemist at the Lister Institute of Preventive Medicine and between 1908 and 1912 published three highly cited first author papers on the chemistry of acetylketen. However during this period she had what appeared to be a Damascene conversion, because by 1911 she was working full-time in medical statistics. In 1910 the Lister Institute had recruited the medical statistician Dr Major Greenwood to form a statistics department there. He gave a series of statistics lectures, which she attended,

and they set her future career. In October 1912 she was appointed Grocers' Research Scholar at the Lister, a post she retained until the First World War.

Frances Wood's statistical career was brief yet meteoric. In February 1913 she was elected fellow of the Royal Statistical Society (RSS) and that same year published two single author papers discussing the inadequacy of the index numbers used by the Board of Trade to measure time trends in rents, wages, and prices. A third paper on the topic appeared in 1916, emphasizing how rising food prices could be accommodated by the middle classes simply by changing the make-up and/or quality of the diet, whereas the working classes had no such flexibility.

In 1913–14 Frances Wood started a DSc project to investigate the correlation between home conditions and the mental development of children in elementary schools. However the First World War intervened and she was unable to complete it. Also in 1914 she published three papers with Greenwood on methods for comparing cause-specific mortality rates.

In December 1914 Wood joined the Board of Trade as a special investigator of employment statistics. In 1915 she was elected to the Council of the RSS as its first female member, and in 1917 she joined the RSS Executive Committee—again a first. In October 1916 she transferred to the Ministry of Munitions Central Statistical Department with the job title section director in charge of special statistical investigations. Her work was to record temporal variations in the stock of equipment and ammunition as documented in secret statistics supplied by the War Office and to provide a private weekly summary direct to the minister. On the strength of this work Wood was appointed MBE in the honours list published in August 1917 and OBE in June 1918.

Wood became pregnant and resigned from the Ministry of Munitions in March 1919. On 30 September her daughter Barbara was born at the Marlborough Maternity Section of the Royal Free Hospital (21 Endsleigh Street, now part of UCL). Frances Wood died there twelve days later, on 12 October 1919, from septicaemia following caesarean section. Barbara survived, later going on to Notting Hill and Ealing High School and Newnham College, Cambridge.

Frances Wood's career extended beyond her death, with the appearance in 1920 of her paper with Greenwood on the fertility of the English middle classes. Her 1913–14 data on home conditions and intelligence were finally published in 1923, with an acknowledgement to her. A fulsome obituary, written by Greenwood, appeared in the *RSS Journal* in January 1920, and the RSS annual report of 1920 included a tribute to her. Just two months after her death a memorial fund was set up, with those who had worked with her in UCL, the Lister, the RSS, or government invited to contribute. The money raised was used to establish the RSS Frances Wood Memorial Prize, which continues to be awarded as the Wood Medal.

Greenwood's Lister Institute statistics department founded in 1910 is generally recognized as the first department of medical statistics, with him the first medical statistician. It seems reasonable on this basis to credit Wood with the title of first female medical statistician. To this should be added, the first woman on RSS Council and the first woman on the RSS Executive Committee.

Five of the seven Chick sisters (though none of the three brothers) graduated from the University of London: in addition to Frances, Edith (botany), Harriette (chemistry and bacteriology), and Elsie (languages) were at UCL, while Dorothy, after Newnham College, Cambridge (natural sciences), was at the London School of Medicine for Women, graduating in medicine. Edith Chick (1869–1970) went on to become a research botanist and married the

eminent botanist Arthur Tansley, who later founded the science of ecology; they had three daughters. Harriette Chick became a microbiologist and biochemist, and her work on the B vitamins and deficiency diseases made her one of the most important nutritionists of the twentieth century. Elsie Chick (1882–1967) married Frederick Blackman, an eminent plant biochemist, and they had a son. Both Tansley and Blackman became professors (at Oxford and Cambridge respectively) and fellows of the Royal Society. Dorothy Chick (1887–1919) trained in surgery at the Royal Free Hospital, saw service in the First World War, and died of influenza in February 1919, aged just thirty-one.

For women to have had a university qualification at all at that time was unusual, and to have five in one family with such eminent careers was extraordinary. Attendance at Notting Hill High School was important for their success. Their father Samuel had sought advice about their education from Lady Henrietta Stanley of Alderley, a campaigner for women's education and founder member of the Girls' Public Day School Company, which had started Notting Hill High School thirteen years earlier. But his agreeing to their going there reflected an openness to female emancipation that was unusual for the time.

## Sources

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- J. E. Sayers, *The fountain unsealed: a history of Notting Hill and Ealing High School* (1973)
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*The Times* (14 Oct 1919)

*Historical Record of the University of London* (1926)

*London Gazette* (24 Aug 1917), 8798; (7 June 1918), 6715

## **Likenesses**

photograph, c.1918, IWM

photographs, repro. in *Significance* (Oct 2017), <https://www.significancemagazine.com/563>,  
accessed 8 March 2018

## **Wealth at death**

£1117 0s 3d.: probate, 29 Nov 1919, *CGPLA Eng. & Wales*