## The origins of registration of births and deaths in Singapore



s in previous articles on the medical history of Singapore, this one will also have many quotations from primary sources. The author believes that this makes more interesting reading (including the English used in the 19<sup>th</sup> century), than a rehash of the results of his researches.

The first Registration of Births and Deaths Ordinance was passed on November 12, 1868. Concern had been expressed earlier about the lack of records regarding the number of deaths in Singapore. There were epidemics of the major infectious diseases in the 19<sup>th</sup> century, but there were also many other causes of death, especially deaths due to violence, Singapore then not being a very peaceful town. Enlightened members of the community were worried about undetected murders and infanticide.

During a cholera epidemic, the Editor of the Singapore Free Press carried out some investigation into the incidence and mortality, but could come to no conclusion. He commented<sup>(1)</sup>:

"...... It is impossible to arrive at any but an approximate estimate as no records are kept at any of the burial grounds of the numbers or names of persons interred. It were well if some system of record were enforced as it would afford important statistical information and aid the ends of justice. At present, a murdered corpse can be interred at any of the burying places in open day and there is not the slightest chance of detection, since those who bring the body, may dig the grave and perform the rites of sepulchre undetected, there being no one in charge of these places or whose duty it is to make the slightest inquiry."

Department of Medicine Changi General Hospital 2 Simei Street 3 Singapore 529889

Y K Lee, MD, FRCP, LLB Emeritus Consultant

Correspondence to: Prof Lee Yong Kiat Tel: (65) 6850 3987 Fax: (65) 6781 6202 Email: maudrene\_lee@ cgh.com.sg It is not strictly true that there was no record of deaths. There was some sort of record similar to the Registers of Deaths, Births and Marriages kept in the parish churches in England. But this was only for Europeans who were members of the Church of England (not for the general population of Singapore). In November 1855, the Court of Directors of the East India Company suggested that there should be a column for "cause of death" in the periodical returns of Deaths, Births and Marriages forwarded to England for their information<sup>(2)</sup>. Correspondence with the Archdeacon of Calcutta and the Ministers of the Church of England confirmed that they would also like to have the cause of death included in the Register Books.

The Medical Officers in charge of the Civil Hospitals were instructed to state the cause of death in the death reports of Europeans preparatory to interment. The Commander-in-Chief was also requested to order the Medical Officers in charge of Military Hospitals that as the cause of death was to be stated in the Register Books of Burials and the returns to the Court of Directors, they too would have to comply with this order<sup>(3)</sup>.

The existing state of affairs, i.e. no proper records of deaths, persisted. During this period of time, statistics were already being collected by the Registrar-General of England. It was suggested that the health of Singapore would benefit by the introduction of a system similar to, but not as comprehensive as that in England, just to obtain statistics on health matters<sup>(4)</sup>:

"It were greatly to be wished that amongst the general appliances possessed by the community of Singapore for acquiring regular information on topics of local interest, there existed also means of furnishing to the public, <u>periodical returns</u> of <u>health</u>, detailing facts with the same minuteness and deducing inferences with the same logical exactness as the returns of the Registrar-General of England. It would not only be of advantage to the community itself, but would constitute a valuable addition to the stock of human knowledge.

The extensively mixed character of our population and the equally varied character of their habits must doubtless severally produce results more or less unfavourable or hurtful to health. In judging therefore of facts so intimately connected with their sanitary condition, it would be interesting to estimate from the <u>bills of mortality</u> how each death was due to causes peculiar to people themselves or how far climate and other causes were to blame in the matter.

Returns of this sort are, if possible, more important in a tropical than in a temperate region. ...... Municipal authorities ought on that account be more unremittingly be on the alert. .....

We have indulged in these remarks in the hope of drawing the attention of the more intelligent portion of the community and of the Municipal authorities to one of the most important questions of the present day. It is not within the compass of human power in many cases to prevent the appearance of certain diseases, but it is unquestionably possible by the stringency of our sanitary regulations and practice to give them no permanent resting place when they do make their appearance."

It was realised that under Section CXI of the Indian Conservancy Act XIV of 1856, the Municipal Commissioners could compel the registration of deaths. The Commissioner of Police was instructed to submit monthly mortuary returns. This, of course, was grossly inaccurate in relation to the total number of deaths in Singapore. However, it was a start<sup>(5)</sup>. (The Straits Settlements comprising Singapore, Penang and Malacca, were then administered as part of India.)

In 1862, investigative journalism during another cholera epidemic again revealed that there were no accurate records of deaths. Police records were useless as they showed only deaths voluntarily reported by relatives. Further inquiries into the number of births showed not even inaccurate records. There were none! The value of statistics was emphasised, and it was proposed that the system adopted in Great Britain should be introduced into Singapore. There might be some difficulty due to local peculiarities but the advantages would be enormous. A modified system taking into consideration local circumstances was proposed. (It was less comprehensive than that the Dutch had introduced into Java which gave the Police unlimited power over the local population.)<sup>(6)</sup>:

"While making our inquiries with respect to cholera, the total want of any reliable data from which to judge of the mortality of the island was forcibly obtruded upon our attention. We sought in the Police records but found that only a small portion of the actual deaths were there reported. ..... The reports that reach the Police are made voluntarily by friends of the deceased, and not by reason of any regulations which render it compulsory. Of births, no records whatever is even attempted and kept and we are consequently quite unable to judge how our population is maintained, whether by natural increase or to immigration we owe most.

The value of statistics of this nature has been thoroughly established at home. The system of registration now adopted in Great Britain is so perfect and its maintenance is considered of so much importance that the slightest irregularities are attended with the severest penalties. ...... Surely if registration there had been found so advantageous, we are bound to adopt it here. The difficulties in our way are certainly greater, the introduction of any new system is necessarily much less easy among an alien than among an assimilated people ...... But imperfect as they (the registers) might be, they would be better than none. .... They would be chiefly of use as a guide to use in our sanitary arrangements and partly too as a check upon crime."

The method proposed was to appoint the Headmen of the various native communities as Registrars, and they had to report periodically to a Registrar-General. Regulations would be enacted imposing a heavy fine upon all parents who did not report a birth with ten days, and upon every householder who did not register a death within the same period of ten days. Registration should extend only to births and deaths, but not to marriages as this would meet with almost insurmountable difficulties due to the many different religions of the population.

The Registrars should be paid a small honorarium, but "the office of Registrar-General could be added to the duties of some of our present officials whose appointments are more remunerative than laborious."! The difficulty of organising a registration system would not be great and would certainly be more than compensated by the advantages it would give:

"...... In the simpler form, we would be able at least justly to estimate the various causes which injuriously affect our population, and to take the requisite measures for their suppression."

There was agitation again in the Straits Times of August 1, 1863 on "the absolute want of any public index of mortality or of those causes which affect the increase or decrease of our population<sup>(7)</sup>".

On November 5, 1864, the Editor of the Straits Times in a leader on registration of deaths drew attention to the fact that this measure had been frequently urged upon Government but nothing had been done. He suggested that as under the Indian Conservancy Act of 1856, all burial grounds had to be licensed, it would not be difficult to attach a condition that burials should be reported. Moreover, the Chinese already had registers of burials in their cemeteries. These registers also had details of age and sex of those buried and the cause of death. He thought that it was not necessary to have a registration of births and marriages<sup>(8)</sup>:

"We think that most people here must be agreed upon the advisableness of having some index of which the mortality of the island may be ascertained with an approach to accuracy. A measure of this sort has been frequently urged upon Government, and it really appears to us that the difficulties in the way of introducing it are less than imaginary. According to the Conservancy Act of 1856, all the burial places around Singapore have to be licensed by the Municipal Commissioners. The numbers and localities of these must therefore be well-known and nothing could be easier than to attach a condition to these licences rendering necessary a weekly or monthly account of the burials. .....

In all the Chinese cemeteries, we believe, registers of the number of burials are actually kept. ...... In addition to the mere list of burials, the register books show the age and sex of those interred and the diseases from which they had died.

From these explanations, it will be seen that no difficulty lies in the way of a reliable registration of deaths. As to a registration of births, there is really very little necessity for it as our population is added to almost entirely by immigration. Again as to marriages ...... it would be almost impossible. ...... A registration of deaths therefore would be all we would want and as this is apparently so simple a matter we may hope to see it carried out ere long."

In June 1865, the Commissioner of Police added his voice to the plea for compulsory registration. He wanted registration of births. There was a high incidence of infanticide. Those discovered by the Police were the tip of an iceberg. He wrote to the Governor<sup>(9)</sup>:

"..... I beg to draw your attention to the fact of the number of corpses of infants found by the Police. ......... The bodies were in such a state as to prevent the medical officer ascertaining whether or not the infants had ever lived: A body of an infant was found in the swamp at Campong Malacca.

One in the Singapore River.

One in the canal near the Institution (Raffles Institution).

One in the Hill (Government Hill, Fort Canning). One infant was found alive and taken to the Sisters' Institution (Convent) where it died shortly after admittance.

I do not state that the first 4 cases were those of murder, but they certainly bear strong suspicion of being so.

If a law existed in the Straits Settlements making it compulsory the Registration of Births of infants and punishing those who conceal the births of their children, I am of opinion, such cases as those above alluded to would be of much rarer occurrence.

I have spoken to the Crown Counsel regarding the matter with a view of preparing a draft of an Act for the Straits, and he assures me one could easily be framed by himself if desired to do so by His Honour the Governor.

## T. DUNMAN."

Laws for the Straits Settlements had to be passed by the Indian Government as the Straits Settlements were administered as part of India. The Indian Government was too busy with bigger problems than to bother with the registration of births and deaths in the Straits Settlements.

Next, it was the Editor of the Singapore Free Press, who drew attention to the value of statistics. Data collected and correctly interpreted had led to sanitary improvements in many towns and cities in England. The value of statistics had also led to the registration of births, baptisms, marriages, deaths, burials, medical practitioners, and census of the population, etc. He therefore viewed<sup>(10)</sup>:

"with pleasure the resolve of the Straits Government to publish periodically a mortuary return of the people, such as that published in the Gazette, which although at present incorrect from the fact that the registration of deaths and burials is not compulsory, we accept as an earnest of what is to follow. ..... Our medical men might assist in the good work by keeping registries of all deaths that come under their cognisance and handing them in at the end of the year to the Commissioner of Police. We sincerely hope that the whole system of registration now employed in England will soon be introduced into this settlement." One example is quoted as a matter of interest<sup>(11)</sup>: "Returns of Burials at the Christian Cemetery. Quarter ending 31.3.1866. 37 burials.

<i>d</i> :
Apoplexy 1;
Cholera 1;
Children (Convulsions 7;
Diarrhoea 2.);
Disease of Brain 1;
Phthisis 1;
Scrofula 1;
Disease unknown 8."

Infanticide was on the increase, and as there was not to be a registration of births and deaths, there was a proposal to establish a Foundling Hospital to give the unwanted babies a chance of life<sup>(12)</sup>:

"Infanticide apparently has been on the increase within the last year, and the beach in front of the Institution (Raffles Institution) has become notorious for the number of dead infants found there. ...... If infanticide is to be a common occurrence amongst us, we might as well establish a Foundling Hospital for its prevention, where the little ones could be reared and cared for." (The Sisters of the Convent were already taking in and looking after abandoned babies.)

1867 was the year of the Transfer. On April 1, 1867, the Straits Settlements were transferred from the India Office to the Colonial Office and became a Crown Colony with is own Legislative Council, and subject to control by the Secretary of State for the Colonies. This event had far-reaching consequences. The Straits Settlements had some semblance of "self-government" and could enact its own laws subject to approval by the Secretary of State.

On April 27, 1867, the Secretary of State for the Colonies inquired of the Governor whether there was registration of births and deaths in the Straits Settlements<sup>(13)</sup>:

"..... on the want in many colonies of an accurate Register of Births and Deaths notifying the causes of the latter, and of a regular publication of results without which the most important conditions of health and life in the populations will probably be disregarded. I request you to report what arrangements are in force upon this point."

The Governor replied<sup>(14)</sup>:

"My lord, ...... Reply to inquiry of 27.4.1867.

Registration of Births, Marriages and Deaths

of Europeans and Christian converts is kept by the different ministers of Religion at the Settlements. ...... The system of registration in question is very imperfect, and I am about to submit to the Legislature a measure for its improvement."

Smallpox was endemic in Singapore, and now and then flared up into epidemics. The most obvious way to control this scourge was compulsory vaccination of children enforced by law. This, of course, was not possible if the Government and its Medical Service did not know the number and whereabouts of the babies born. Hence, it was also proposed that a law to compel registration of births be also enacted; and since births were to be registered, deaths might as well be included.

The legislative machinery was soon set in motion. The Governor informed the Secretary of State that for a Vaccination Ordinance to be effective, compulsory registration of births and deaths was necessary although it would not be easy to implement:

"..... to enable it (Vaccination Ordinance) to be worked effectually, a Registration of Births and Deaths Ordinance is required, and although I am most anxious on other and more important ground that a law should be passed for establishing such a registration, there are difficulties in the way of doing so, which I do not as yet see my way to 

At the Legislative Council meeting of October 16, 1868<sup>(16)</sup>, it was "proposed by the Attorney-General and seconded by the Treasurer that the introduction of a compulsory Vaccination Bill be accompanied by the introduction of a Bill for the Registration of Births and Deaths, which was agreed to."

And at the Legislative Council meeting of October 30, 1868<sup>(17)</sup>, "the Attorney-General in accordance with the recommendation of a committee of the Legislative Council, introduced and read for a first time a Bill for the Registration of Births and Deaths." The Standing Orders were suspended and the Bill was read a second time and committed.

The Committee reported progress at the next two meetings of the Legislative Council on November 10, 1868<sup>(18)</sup> and November 12, 1868<sup>(19)</sup>, and the Bill was reported on November 12, 1868, read a third time and passed (Ordinance XVIII of 1868). The Vaccination Bill was also read a third time on November 12, and passed (Ordinance XIX of 1868).

In his speech to the Legislative Council meeting on December 9, 1868, the Governor said that of the 20 ordinances passed during the present session, the three most important were the Quarantine Ordinance, the Registration of Births and Deaths Ordinance and the Vaccination Ordinance<sup>(20)</sup>.

On January 12, 1869, the Secretary of State informed the Governor that the Registration of Births and Deaths Ordinance had been confirmed by Queen Victoria<sup>(21)</sup>. He had one query. He wondered if the time allowed for parents and householders to report births and deaths was too short.

The Governor replied<sup>(22)</sup>:

"...... Your Lordship remarks that you entertain a doubt whether the time fixed by the 10<sup>th</sup> section for registering after a death is not too short. I beg to assure Your Lordship that the time in question was not fixed until after great deliberation and after opportunities had been afforded of hearing expressed the views of the Police Authorities and others well acquainted with the habits and ways of thought of the Natives. It was the opinion of these gentlemen that to allow a longer time than that fixed by the Ordinance for giving notice of a death, viz. 24 hours, would in many cases lead to its being forgotten and altogether neglected, and that as to the distance required to be travelled for the purpose of giving notice would never exceed a few miles, the principal Police Stations being appointed as the places of registering, it would not be considered by the natives any hardship or even any practical inconvenience to have to register at such notice.

The requirements of the 10th section that the particulars should be given by the occupier of the house as well as by the parents of the child in case of birth, were taken in principle from the XIX Clause of the Registration Act VI & VII William IV cap 86 (an English law) ...... If it becomes necessary at any time to amend the measure, the provisions can be amended.

Your Lordship may rest assured that every consideration will be and is now being given to the practical working of the measure, but which is of a nature to require great care in its application amongst a population of the peculiar susceptibilities which characterise that of the Settlements."

On February 17, 1869, the Governor informed the Legislative Council<sup>(23)</sup>:

"If no difficulties are found to present themselves from the prejudices of the natives, the Ordinance will without delay be put into operation throughout the Settlement, and will be at once followed by the introduction of the Vaccination Ordinance......" The Registration of Births and Deaths Ordinance was brought into operation in Singapore and Penang on May 1, 1869, and in Province Wellesley on October 1, 1869.

The Governor reported to the Legislative Council on December 29, 1869<sup>(24)</sup>:

Dr H L Randall, the Colonial Surgeon (Head of the Medical Service) was appointed the Registrar-General of Births and Deaths, Straits Settlements, and his report on the working of the Registration Ordinance for 1869 (May to December) was laid before the Legislative Council on May 23, 1870. Part of his report with his comments will be quoted as they are very informative and give us a glimpse of what life and conditions were like in Singapore 135 years ago<sup>(25)</sup>:

"The Ordinance cited as the Registration Ordinance passed the Legislative Council on 12<sup>th</sup> November 1868, and was brought into operation in the Settlements of Singapore and Penang on 1<sup>st</sup> May 1869, and in Province Wellesley on 1<sup>st</sup> October 1869.

The staff for working this Ordinance has been the appointment of a Registrar-General for the Straits Settlements, and a Registrar of Births and Deaths for Singapore, Penang and Province Wellesley. The latter officers are assisted by Deputy Registrars and Sub-registrars. ......

On the whole, I think the Ordinance may be said to have worked tolerably well although the returns indicate but an approximate idea of the true numbers of births and deaths that have actually occurred. This is due, I consider, to a certain extent to the Ordinance not being fully known, and also from want of sufficient interest in the work among the Deputy and Sub-registrars who have yet not received any compensation for the extra duty imposed on them, and not to any prejudice among the natives against the Ordinance.

The total number of births listed in the different settlements after the introduction of the Ordinance in 1869 has been 1,240, of these 652 are males and 588 are females. The numbers given bear the following ratio to the three settlements, viz:

Singapore	247 males	178 females.
Penang	219 males	220 females.
Province Wellesley	186 males	190 females.

The greatest numbers of registered births are among the Malays; the Chinese and Javanese in consecutive order show the next largest numbers, and then the Bengalis and Klings. From the very difficulty in classifying the different castes of India, I have included under the nationality 'Bengali', all natives of northern and central India, who for the most part speak Hindustani, and under the nationality 'Kling', natives of south India speaking the Tamil language.

The total number of deaths registered in the different settlements for 1869 has been 2,301, of which 1,661 are males and 640 females, bearing the following ratio to the different settlements, viz:

Singapore	1,046 males	259 females.
Penang	316 males	188 females.
Province Wellesley	299 males	193 females.

The greatest mortality registered appears under the following diseases:

Fever		 	818
Dysentery, die	530		
Diseases of th	181		
Old age and a	lebility		123
Dropsy		 	106
Convulsions		 	86
Smallpox		 	77
Ulcers		 	71
Unknown		 	58
Total			2,050

I am of the opinion that no great dependence can be placed on the return of causes of death as from my experience of the causes of death among the population of the Straits Settlements, I cannot believe that 818 deaths as returned from Fever ("demam" in Malay) are correct.

As a large number of diseases are ushered in and accompanied by fever, it appears clear to me that the native population through ignorance have failed to recognise the true cause of death, and have registered as the cause that is most apparent to them. The proneness of the natives to group a large number of diseases under one head as being produced by one generic cause is well-known, and I mention this to explain my reason for not placing any great dependence upon the registered causes of death. (Deaths were not required to be certified by doctors as there were not enough of them to do so. The friends and relatives of the deceased just reported what they thought was the cause of death.)

The deaths assigned to the other diseases mentioned above may be assumed to be tolerably correct with the exception of those returned under 'convulsions'. I take exception here because a large number here so returned as having died under this head are shown as of middle and adult age, whereas convulsions as a cause of death is almost entirely an infantile disease. I can explain this in the following way – the native population record all sudden sensation of cold and shivering (rigors) as 'convulsions'.

I would point out for notice that only 77 deaths from smallpox are returned for the three settlements. This number appears to me to be small in proportion as far as I remember of the fatal effects of this disease......

Under the head of Ulcers, 71 deaths are recorded, out of which 36 are Chinese. Here Ulcer may be regarded as the primary but not the immediate cause of death. The latter being more probably due to exhaustion or diarrhoea as invariably being the fatal termination of this disease.

A great number of deaths returned as cause 'Unknown' are children who have survived birth only a short time.

Of the causes not mentioned above, the only one that calls for notice is the number of fatal cases from childbirth, viz 32. This large mortality is, I imagine, attributable to the malpractice of ignorant midwives in difficult cases, and to the deplorable practice amongst the natives of producing early abortions. How this cause of death may be lessened by establishing hospitals for women is a question I think worthy of consideration of Government.

15 deaths are assigned to Murder, which is a large number considering the returns only embrace 8 months of the year (May to December 1869). ......

With regard to the effect of mortality upon age and sex, it is worthy of notice the large number of Malays who have died under 5 years of age. ..... The cause most apparent to me for this undue proportion is the want of care and attention during infancy.

Among the Chinese, the greatest number of deaths registered are those between 20 and 60 years of age. .......... This is attributable to the fact that the Chinese immigrate here principally in advanced youth and adult age.

The tabulation of deaths according to age is not to be accepted as literally correct, as it is well-known how few natives, no matter what the nationality, have a correct idea of their true age. (Evidently the Colonial Surgeon did not know that the Chinese had been recording ages for centuries according to the lunar calendar). .....

In concluding this report, I beg to offer the following remarks and suggestions with a view

of increasing the more efficient working of the Ordinance. I would first suggest as an important step that the Deputy and Sub-registrars in particular who as police officers have their own special duties, should be stimulated to increased exertion in this work by the grant of some fixed compensation for the extra duty entailed on them, as, if properly done, it must involve a considerable amount of time and writing.

I would also recommend that periodically, say, 2 or 3 times a year, the attention of the native population should be drawn to the subject by having printed notices in their languages, freely posted in conspicuous places, informing them of the penalties they subject themselves to by nonregistration of births and deaths. .....

I am conscious that the returns and report now submitted are defective in many details, but I trust in succeeding years as the Ordinance is more efficiently carried out, I shall be able to render more comprehensive returns."

In May 1871, a separate post of Registrar-General of Births and Deaths was created, and the Colonial Surgeon was relieved of his extra duty as Registrar-General of Births and Deaths<sup>(26)</sup>.

By 1895, the death rate in Singapore was still high, and it was still not possible to ascertain the true causes of all deaths<sup>(27)</sup>.

"Under the present system of registration it is, of course, very difficult to ascertain the true causes of all deaths of persons whose deaths are not certified by medical practitioners. ......"

## And in 1898<sup>(28)</sup>:

"Apart from admissions to hospital, European medical practitioners know very little about the prevalence of sickness among the native population, and can only judge of it by the number of cases and causes of deaths registered, and the causes of deaths, as registered, are very unreliable..........." In 1908, the Registration of Births and Deaths Ordinance was amended to streamline its administration<sup>(29)</sup>. But in 1913, the Governor in his address to the Legislative Council stated<sup>(30)</sup>:

"In Singapore, during the first six months of the current year, out of 1,158 deaths of infants under one year, no less than 159 occurred among infants handed in or dumped at the gate of the Convent, a large percentage in a moribund condition. 30 others were found on waste ground. ......

It would be many more decades before the situation which exists in present-day Singapore came about.

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