

VIII. *Bill of Mortality for Chester for the Year 1773.* By
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Redde, Feb. 2, 1775. THAT Chester is healthy to a very remarkable degree, is still more clearly evinced from the following tables, than in the register of last year. In 1772, one half of the inhabitants appeared to arrive at 20 years of age; a fact which seemed very surprising when compared with the proportional mortality in other towns, both of a larger and less size. But, according to this year's register, one half have lived to be 36 years old. In 1772, one in 15 and 3-4ths had lived to above 80, and this year 1 in 13. These are very uncommon instances of longevity for so large a proportion of the inhabitants. The inhabitants of St. Michael's parish were numbered to be 618, of whom this year ten have died; that is, a less proportion than 1 in 61. If the inhabitants of the whole city were numbered with the same accuracy as those of St. Michael's, many important conclusions, both medical and political, might with certainty be deduced from the bill of mortality. The register of burials in the nine parishes are kept separate; hence, by comparing the number of inhabitants in each parish with the burials in each, for a period of years, we may, on the most evident foundation, discern

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which part of the town is most healthy. In a political view, such an account would furnish the best means of demonstrating the accuracy of a table of the probabilities of life, formed from the register, and supply unerring *data* for calculating annuities, the value of reversionary payments, and assurances on lives. Such an old town as Chester, where the number of inhabitants has for many years suffered little variation, and where the births and burials are nearly equal, is peculiarly well fitted to furnish this important information. At the request of Dr. PRICE, author of the very ingenious essays on annuities, &c. an improvement is made in the first table, by continuing the division of lives into periods of five years, from 50 till 80, and from that age to the extremity of life, by marking exactly the number dying in every year; because for want of such a register, the law, according to which life wastes after 80, is at present almost totally unknown, and the values of annuities on single and joint lives, incapable of being calculated with any tolerable exactness, beyond 70 or 75. The following tables confirm the observation, that women live longer than men. Of those who have lived to above 80, only 10 are males, and 17 females; the number of widowers this year is 17, of widows 44. The table of diseases of different ages (N° II.) confirms in general the observations of last year. It is evident that no epidemic visited this place in 1773; not one died of the measles, or miliary fever, and the 10 who sunk under the chinkcough had probably lingered under the disease since

since the former year, towards the end of which it ceased to be epidemic. Only one has died of the natural small-pox; twelve were inoculated in Chester, during this year, and all recovered. In order to determine the utility of inoculation, it is necessary to ascertain, by an induction of facts, to what proportion of those who are infected, this disease is fatal in the natural way. I have received a very authentic account of the following fact, which is perhaps the more curious and instructive, as no medical practitioner whatever visited any of the patients during the whole disease: at Kelsall and Ashton, two small Cheshire villages in this part of the county, on an eminence of a dry absorbent sand rock, 69 persons have had the small-pox during the last seven months; of whom 12 have died, that is, 1 in 5 and 3-4ths. In confirmation of last year's observation it is proper to remark, that between the ages of 15 and 50, more have died of consumptions this year, than of all other diseases.

The 111d table shews, at one view, what diseases were most fatal in each month.

TABLE I. Deaths, Ages and Conditions.

| Ages. | Males. | Females. | Ages. | Bachelors. | Hufbands. | Widowers. | Maids. | Wives. | Widows. | Total. |
|---|--------|----------|-------|------------|-----------|-----------|--------|--------|---------|--------|
| Under 1 month — | 6 | 4 | 20-25 | 6 | 1 | | 4 | 1 | | 12 |
| Between 1-2 months | 12 | 5 | 25-30 | 5 | 3 | | 1 | 6 | | 15 |
| 2-3 | 4 | 6 | 30-35 | 1 | 3 | | 4 | 3 | | 11 |
| 3-6 | 8 | 8 | 35-40 | 8 | 5 | | 1 | 14 | | 21 |
| 6-9 | 1 | 3 | 40-45 | 1 | 9 | 1 | 2 | 6 | 1 | 20 |
| 9 months and 1 year | 2 | 8 | 45-50 | | 10 | 1 | 2 | 1 | 3 | 17 |
| 1-2 years old | 5 | 12 | 50-55 | 1 | 3 | 1 | 3 | 5 | 2 | 15 |
| 2-3 | 6 | 5 | 55-60 | | 3 | 1 | | 6 | 3 | 13 |
| 3-4 | 4 | 6 | 60-65 | 2 | 4 | 2 | 2 | 5 | 2 | 17 |
| 4-5 | 1 | 5 | 65-70 | | 4 | 1 | 1 | 2 | 5 | 13 |
| 5-10 | 3 | 7 | 70-75 | 1 | 5 | 3 | | 5 | 10 | 24 |
| 10-15 | 2 | 2 | 75-80 | | | 2 | 2 | 1 | 7 | 12 |
| 15-20 | 7 | 4 | 80 | | | 2 | 1 | | 2 | 5 |
| Total of the above ages, | 60 | 75 | 81 | 1 | | | | | | 1 |
| | | | 82 | | 1 | 1 | | | 1 | 3 |
| | | | 83 | | | | | | 2 | 2 |
| | | | 84 | | | | | 1 | 1 | 2 |
| | | | 85 | | 1 | | | | | 1 |
| | | | 86 | | | | | 1 | 1 | |
| | | | 87 | 1 | | 1 | | 2 | 4 | |
| | | | 88 | | | | 1 | | 1 | |
| | | | 89 | | | | | 1 | 1 | |
| | | | 90 | | | | | 1 | 1 | |
| | | | 91 | 1 | | | | | 1 | 2 |
| | | | 92 | | | | | | 1 | 1 |
| | | | 93 | | | | | | | 2 |
| | | | 94 | | | | | | | 1 |
| | | | 95 | | | | 1 | 1 | | 2 |
| | | | 96 | 1 | | | | | | 1 |
| | | | 97 | | 1 | | | | | 1 |
| | | | 98 | | | | | 1 | 1 | 2 |
| | | | 99 | | | | | | | 1 |
| | | | 100 | | | | | | | 1 |
| Total of ages and conditions, | | | | 20 | 53 | 17 | 24 | 58 | 45 | 217 |
| Total of ages under 20 years, { Males, 60 } Females, 75 } 135 | | | | | | | | | | |

Total, 352

TABLE

DISEASES.

T A B L E II. Diseases of different Ages.

| 30. | 90- 100. | 100 & upw. | 10.a.i. |
|-----|-------------|---------------|---------|
| | | | 33 |
| | | | I |
| | | | I |
| | | | 8 |
| | | | I |
| | | | 4 |
| | | | I |
| | | | 2 |
| | | | I |
| | | | I |
| | | | 73 |
| | | | I |
| | | | 7 |
| | | | 8 |
| | | | I |
| | | | 5 |
| | | | 69 |
| | | | 16 |
| | | | 10 |
| | | | 3 |
| | | | I |
| | | | 3 |
| | | | 13 |
| 6 | I | 62 | |
| | | | 13 |
| | | | I |
| | | | 2 |

| IV. LOCAL DISEASES. | | | | | | | | | | | | | |
|---------------------|----|----|----|----|----|---|----|----|----|----|----|----|----|
| Cancer (G. 114.) | | | | | I | | | | | | | | I |
| Unknown diseases. | I | | | | | | | I | | | | | |
| Casualties. | | | | 2 | I | | | 2 | | I | | I | |
| Total, | 65 | 17 | 11 | 16 | 10 | 4 | 11 | 27 | 32 | 37 | 28 | 30 | 37 |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |

MORBORUM GENERA.
CLASSIS I. PYREXIAE.

- G. 5. 6. Typhus. Synochus.
G. 7. Apoitema.
G. 7. Apoitema mediaastini.
G. 7. Gangrena.
G. 10. Cynanche.
G. 16. Enteritis.
G. 19. Nephritis.
Sauv. G. 198. Odontalgia dentitionis.
G. 26. Variola.

- G. 33. Aphtha.
G. 35. Phthisis.
G. 37. Menorrhagia lobialis.
CLASSIS II. NEUROSES.
G. 40. Apoplexia?
G. 41. Paralyfis.
G. 42. Synchopel? (puerperalis.)
G. 43. Dyspepsia.
G. 48, 50. Convulsio. Epilepsia.
G. 52. Asthma.
G. 53. Pertussis.

- G. 55. Colica.
G. 57. Diarrhæa.
G. 63. Mania.
CLASSIS III. CACHEXIAE
G. 65. Tabes, atrophy infantilis.
G. 66. Atrophy senilis.
G. 71. 75. Ascites. Anasarca.
G. 72. Hydrocephalus.
G. 87. Icterus.
CLASSIS IV. LOCALES
G. 114. Cancer.

| | | | |
|---|---|-----|---|
| | | | 2 |
| | | | 2 |
| | | | 7 |
| 6 | 1 | 352 | |

ACHEXIZÆ.

a infantilis.

s.

na farca.

.

Locales.

T A B L E

T A B L E III. Diseases of different Months.

| DISEASES I. Febrile Diseases. | Jan. | Feb. | March | April. | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
|-------------------------------|------|------|-------|--------|------|-------|-------|------|-------|------|------|------|--------|
| Fever (CULLEN's GENERA 5, 6.) | I | 4 | 6 | 4 | | 5 | I | 2 | | 3 | I | 6 | 33 |
| Imposthume (G. 7.) | | | | | | | | | | | | I | I |
| Angina pectoris (G. 7.) | | | | | | I | | | | | | | I |
| Mortification (G. 7.) | | I | | I | | I | I | | | I | I | 2 | 8 |
| Quinsey (G. 10.) | | | | | I | | | | | | | | I |
| Infl. of the bowels (G. 16.) | | | | | I | I | I | | | | | I | 4 |
| Gravel and stone (G. 19.) | | | | | | I | | | | | | | I |
| Teething (Sauv. 198.) | I | | | | | | I | | | | | | 2 |
| Small-pox (G. 26.) | | | | | | | | | | | I | | I |
| Thrush (G. 33.) | | | | | | I | | | | | | | I |
| Consumption (G. 35.) | 5 | II | 8 | 6 | 10 | 5 | 5 | 3 | I | I | 8 | 10 | 73 |
| Hæmorrhage (G. 37.) | | I | | | | | | | | | | | I |
| II. NERVOUS DISEASES. | | | | | | | | | | | | | |
| Sudden death (G. 40.) | | | | | | I | | I | | 2 | | 3 | 7 |
| Palfy (G. 41.) | I | I | 2 | 2 | | | | | | | 2 | | 8 |
| Swoon (G. 42.) | | | I | | | | | | | | | | I |
| Indigestion (G. 43.) | | | I | 2 | | | | I | I | | | | 5 |
| Convulsions (G. 48, 50.) | 8 | 7 | 3 | II | 6 | 7 | 4 | 6 | 3 | 2 | 3 | 9 | 69 |
| Asthma (G. 52.) | 2 | 3 | 5 | 2 | | | | | 2 | | | 2 | 16 |
| Chinkcough (G. 53.) | 4 | 3 | | I | | | | I | * | I | | | 10 |
| Colic (G. 55.) | | I | | | | | | | | | 2 | | 3 |
| Loofeneses (G. 57.) | | | | | | | | | | | I | | I |
| Insanity (G. 63.) | | | I | I | I | | | | | | | | 3 |
| III. DISEASES of the HABIT. | | | | | | | | | | | | | |
| Weakness of infancy (G. 65.) | | 2 | I | I | 2 | 2 | I | | | I | | 3 | 13 |
| Decay of age (G. 66.) | 3 | IO | 7 | 8 | 8 | 5 | 2 | | 3 | 4 | 6 | 6 | 62 |
| Dropfy (G. 71, 75.) | 2 | | I | I | 2 | I | | 2 | I | | 2 | I | 13 |
| Dropfy of the brain (G. 72.) | | | I | | | | | | | | | | I |
| Jaundice (G. 87.) | | | | | | | | | I | I | | | 2 |
| IV. LOCAL DISEASES. | | | | | | | | | | | | | |
| Cancer (G. 114.) | | I | | | | | | | | I | | | 2 |

| IV. LOCAL DISEASES. | | | | | | | | | | | |
|---------------------|----|----|----|----|----|----|----|----|----|----|-----------|
| Cancer (G. 114.) | 1 | | | | | | | | 1 | | 2 |
| Unknown diseases. | | | | | 1 | | | | | 1 | 2 |
| Casualties. | | 1 | | | | 3 | | | | | 3 7 |
| Total, | 28 | 45 | 37 | 42 | 33 | 33 | 14 | 16 | 12 | 18 | 27 47 352 |

GENERAL BILL of MARRIAGES, BAPTISMS, and BURIALS.
For the YEAR 1773.

Marriages, 133. Baptisms, { Males, 216
Females, 186 } 402. Deaths, { Males, 150
Females, 202 } 352.

IX. *Experiments*

DISEASES.

T A B L E II. Diseases of different Ages.

| I. FEBRILE DISEASES. | Under 1 year. 1 & 2. | Bew. 3-5. | 5-10. | 10-15. | 15-20. | 20-30. | 30-40. | 40-50. | 50-60. | 60-70. | 70-80. | 80-90. | 90-100. | 100 & upw. | 10-12. | | |
|-------------------------------|----------------------------|--------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------------|--------|----|-----|
| Fever (CULLEN'S GENERA) 56 | 1 | 1 | 5 | 3 | 1 | 1 | 2 | 6 | 4 | 4 | 2 | 3 | | | 33 | | |
| Imposthume (G. 7.) | | | | | | 1 | | | | | | | | | 1 | | |
| Angina pectoris (G. 7.) | | | | | | | | | | 1 | | | | | 1 | | |
| Mortification (G. 7.) | | | | | | | 2 | 1 | 1 | 1 | 1 | 2 | | | 8 | | |
| Quinsy (G. 10.) | 1 | | | | | | | | | | | | | | 1 | | |
| Infl. of the bowels (G. 16.) | | | | | | | | 3 | | | 1 | | | | 4 | | |
| Gravel and Stone (G. 19.) | | | | | | | | | | | | 1 | | | 1 | | |
| Teething (Sauv. G. 198.) | 1 | 1 | | | | | | | | | | | | | 2 | | |
| Small-Pox (G. 26.) | | | 1 | | | | | | | | | | | | 1 | | |
| Thrush (G. 33.) | 1 | | | | | | | | | | | | | | 1 | | |
| Consumption (G. 35.) | 2 | 1 | 3 | 1 | 2 | 3 | 9 | 15 | 14 | 16 | 7 | | | | 73 | | |
| Hæmorrhage (G. 37.) | | | | | | | | 1 | | | | | | | 1 | | |
| II. NERVOUS DISEASES. | | | | | | | | | | | | | | | | | |
| Sudden death (G. 40?) | | | | | | | | 1 | 1 | 2 | | 2 | 1 | | 7 | | |
| Palsy (G. 41.) | | | | | | | | | 1 | 1 | 2 | 2 | 2 | | 8 | | |
| Swoon? (G. 42.) | | | | | | | | 1 | | | | | | | 1 | | |
| Indigestion (G. 43.) | | | | | | | | | 2 | 3 | | | | | 5 | | |
| Convulsions (G. 48. 50.) | 50 | 8 | 3 | 3 | | | | 1 | 2 | 1 | | 1 | | | 69 | | |
| Asthma (G. 52.) | | | | | | | | | 1 | 1 | 4 | 4 | 6 | | 16 | | |
| Chinkcough (G. 53.) | 3 | 3 | 2 | 1 | 1 | | | | | | | | | | 10 | | |
| Colic (G. 55.) | | | | | | 1 | | | | 1 | | 1 | | | 3 | | |
| Looseness (G. 57.) | 1 | | | | | | | | | | | | | | 1 | | |
| Infanity (G. 63.) | | | | | | | | 1 | 1 | 1 | | | | | 3 | | |
| III. DISEASES of the HABIT. | | | | | | | | | | | | | | | | | |
| Weakness of infancy (G. 65.) | 4 | 4 | 2 | 3 | | | | | | | | | | | 13 | | |
| Decay of age (G. 66.) | | | | | | | | | | 5 | 12 | 18 | 20 | 6 | 1 | 62 | |
| Dropsey (G. 71. 75.) | | | | | | | | 1 | 1 | 4 | 2 | 2 | 3 | | | 13 | |
| Dropsey of the brain (G. 72.) | | | | | 1 | | | | | | | | | | | 1 | |
| Jaundice (G. 87.) | | | | | | | | | 1 | 1 | | | | | | 2 | |
| IV. LOCAL DISEASES. | | | | | | | | | | | | | | | | | |
| Cancer (G. 114.) | | | | | | 1 | | | | | | 1 | | | | 2 | |
| Unknown diseases. | 1 | | | | | | | 1 | | | | | | | | 2 | |
| Casualties. | | | | | 2 | 1 | | 2 | 1 | | 1 | | | | | 7 | |
| Total, | 65 | 17 | 11 | 16 | 10 | 4 | 11 | 27 | 32 | 37 | 28 | 30 | 37 | 20 | 6 | 1 | 352 |

MORBORUM GENERA.

CLASSIS I. PYREXIA.

G. 5, 6. Typhus. Syncochus.

G. 7. Apoplexia.

G. 7. Apoplexia mediotentini.

G. 7. Gangrena.

G. 10. Cynanche.

G. 16. Enteritis.

G. 19. Nephritis.

Sauv. G. 198. Odontalgia dentitionis.

G. 26. Variola.

G. 33. Apathia.

G. 35. Phthiris.

G. 37. Menorrhagia lobialis.

CLASSIS II. NEUROSES.

G. 40. Apoplexia?

G. 41. Paralyisia.

G. 42. Synchopie? (paroxysmus.)

G. 43. Dyspepsia.

G. 48, 50. Convulsio. Epilepsia.

G. 52. Asthma.

G. 53. Pertussis.

G. 55. Colica.

G. 57. Diarrhoea.

G. 63. Mania.

CLASSIS III. CACHEXIA.

G. 65. Tabes, atrophy infantilis.

G. 66. Atrophy senilis.

G. 71, 75. Alcites. Anafarea.

G. 72. Hydrocephalus.

G. 87. Icterus.

CLASSIS IV. LOCALES.

G. 114. Cancer.

T A B L E III. Diseases of different Months.

| DISEASES I. rebrile Diseases. | Jan. | Feb. | March | April | May | June | July | Aug. | Sept. | Oct. | Nov. | Dec. | Total. |
|-------------------------------|------|------|-------|-------|-----|------|------|------|-------|------|------|------|--------|
| Fever (CULLEN's GENERA 5, 6.) | 1 | 4 | 6 | 4 | | 5 | 1 | 2 | | 3 | 1 | 6 | 33 |
| Imposthume (G. 7.) | | | | | | | | | | | | 1 | 1 |
| Angina pectoris (G. 7.) | | | | | | | 1 | | | | | | 1 |
| Mortification (G. 7.) | | 1 | | 1 | | 1 | 1 | | | 1 | 1 | 2 | 8 |
| Quinsy (G. 10.) | | | | | 1 | | | | | | | | 1 |
| Infl. of the bowels (G. 16.) | | | | | 1 | 1 | 1 | | | | | 1 | 4 |
| Gravel and stone (G. 19.) | | | | | | 1 | | | | | | | 1 |
| Teething (SAUV. 198.) | 1 | | | | | | 1 | | | | | | 2 |
| Small-pox (G. 26.) | | | | | | | | | | 1 | | | 1 |
| Thrush (G. 33.) | | | | | | 1 | | | | | | | 1 |
| Consumption (G. 35.) | 5 | 11 | 8 | 6 | 10 | 5 | 5 | 3 | 1 | 1 | 8 | 10 | 73 |
| Hæmorrhage (G. 37.) | | 1 | | | | | | | | | | | 1 |
| II. NERVOUS DISEASES. | | | | | | | | | | | | | |
| Sudden death (G. 40.) | | | | | | | 1 | 1 | | 2 | | 3 | 7 |
| Palsy (G. 41.) | 1 | 1 | 2 | 2 | | | | | | | 2 | | 8 |
| Swoon (G. 42.) | | | 1 | | | | | | | | | | 1 |
| Indigestion (G. 43.) | | | 1 | 2 | | | | 1 | 1 | | | | 5 |
| Convulsions (G. 48, 50.) | 8 | 7 | 3 | 11 | 6 | 7 | 4 | 6 | 3 | 2 | 3 | 9 | 69 |
| Asthma (G. 52.) | 2 | 3 | 5 | 2 | | | | | 2 | | | 2 | 16 |
| Chinkcough (G. 53.) | 4 | 3 | | 1 | | | | 1 | * | 1 | | | 10 |
| Colic (G. 55.) | | 1 | | | | | | | | | 2 | | 3 |
| Loofeneis (G. 57.) | | | | | | | | | | | 1 | | 1 |
| Insanity (G. 63.) | | | 1 | 1 | 1 | | | | | | | | 3 |
| III. DISEASES of the HABIT. | | | | | | | | | | | | | |
| Weakness of infancy (G. 65.) | | 2 | 1 | 1 | 2 | 2 | 1 | | | 1 | | 3 | 13 |
| Decay of age (G. 66.) | 3 | 10 | 7 | 8 | 8 | 5 | 2 | | 3 | 4 | 6 | 6 | 62 |
| Dropsey (G. 71, 75.) | 2 | | 1 | 1 | 2 | 1 | | 2 | 1 | | 2 | 1 | 13 |
| Dropsey of the brain (G. 72.) | | | 1 | | | | | | | | | | 1 |
| Jaundice (G. 87.) | | | | | | | | | | 1 | 1 | | 2 |
| IV. LOCAL DISEASES. | | | | | | | | | | | | | |
| Cancer (G. 114.) | 1 | | | | | | | | | | 1 | | 2 |
| Unknown diseases. | | | | | | 1 | | | | | | 1 | 2 |
| Casualties. | | | 1 | | | | 3 | | | | | 3 | 7 |
| Total, | 28 | 45 | 37 | 42 | 33 | 33 | 14 | 16 | 12 | 18 | 27 | 47 | 352 |

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For the YEAR 1773.Marriages, 133. Baptisms, {Males, 216
Females, 186} 402. Deaths, {Males, 150
Females, 202} 352.