Supplementary Material
"More poison than words can describe" – What did people die of after the 1783 Laki eruption?
Claudia Wieners and Guðmundur Hálfdanarson

SUPPLEMENT 1: PARISH DATA - WORD LIST AND EXPLANATIONS

The raw data (parish and county level demographic data) are found under:
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Part 1.1: Causes of Death

It should be noted that the Icelandic pastors were not trained in medicine and that terminology was not exact.
The Icelandic doctor Sveinn Pálsson (1790, see source list below) and Danish medical scholar Peter Schleisner (1849) give definitions of some terms, but this does not necessarily mean that pastors were able to make a detailed diagnosis or tried to stick to the definitions given by medical scholars. They had to "diagnose" the cause of death from looking at symptoms or reports by relatives. Different pastors may have had different words for the same diseases or symptoms, of used the same word for different diseases. Some wrote in Icelandic, some in Danish, or a mixture thereof, some also used Latin and Greek words.

CAUSES OF DEATH - DICTIONARY
Numbers in parentheses denote the category (explained below).

- Aðsvif (100)– fainting
- Aldardómsveiki (10) – old age
- Andarteppa (6) – might be whooping cough [Schl p54], but probably broader use
- Andvana börn (-1) – stillborn; might be undercounted; not incuded in statistics.
- Andþrengsli (6) – difficulty in breathing
- Armóður (1) – poverty
- Astmasicco (6) – breathing diffculty?
- Átumein (9) – probably alternative spelling for Ætumein, Cancer
- Atvinnuleysi (1) – unemployment, lack of means
- Aumingjaskapur (1) – misery
- Bágindi (1) – misery, need
- Barnsfarir (12) – Childbirth
- Beinverkir (100) – bone pain
- Beinætugigt (99) - ???
- Bjargarleysi / Bjargarskortur (1) – lack of sustenance
- Bjúgur, Bjúgsótt (1) – Edema?
- Blóð(upp)gangur (2) – loss of blood in excrement or vomit
- Blóðkreppusótt, blóðsott (2) – bloody excrements. According to [JS], blóðkreppusótt may also have some links with scurvy, as blóðsótt (i.e. bloody excrements) accompanied scurvy.
- Blóðnasir (100) – nosebleed
- Blóðstemma (100) – loss of menstruation, amenorrhea
- Blóðteppa (100) – disturbed blood circulation?
- Blóðuppgangur (2) – vomiting blood
- Bóla/Bólusótt/Bóluveiki (5) – smallpox

- Bólga (9) – inflammation
- Bráðkvaddur/-kvödd/, bráðdauður/-dauð (14) – suddenly dead. According to [JS], increased occurrence during famine suggests some causal connection, which he hypothesises to be related to vitamin A overdose from eating shark (hákarl), and vitamin C deficiency due to lack of other food.
- Brjósterfiði (6) – chest problems
- Brjóstmæði (6) – difficulty breathing
- Brjóstveiki (6) – chest disease
- Brjóstverkur (6) – pain in the chest
- Búkhlaup (2) – diarrhoea
- Colica (9) – colic
- Drep (9) – necrotic tissue
- Drukknaði (12) – drowned
- Durchlaup (2) – diarrhoea
- Dysenteria (2) – dysentery
- Döfnunarleysi (9) – lack of development (in a young child)
- Elli, Ellilasleiki, Elliburðalasleiki, Elliburðir (10) – old age.
- Ergelsi (100) – anger
- Eymd, Eymdahætti (1) – misery
- Fátækur, bláfátækur, sárfátækur (1): (very) poor
- Feber (8) – fever
- Flekkusótt (8) – Measles [OB], maybe Scarlett fever [Schl p 53]
- Flúgandi gigt (9) – lethal disease in women [OB], disease with bouts and pain in various parts of the body, especially in and between muscles [SP]
- Flog, Flogaveiki (100) – epilepsy
- Floggigt (100) – (=gigtaflog / rheumatism, gout?)
- Flogverkur (9) – some disease killing children but also adults [OB]. Note: particularly frequent in Kvennabrekka/Dalasysla.
- Forkæling / forkiölelse (8) – common cold
- Fótamein (100) – foot disease, foot wound?
- Fylli (9) – might be linked to hydatid worm disease (meinlæti)
- Geðveiki (100) – loss of sanity
- Gigt/gikt (9) – gout or rheumatism. Grouped as illness (9, not 100) because combinations like "fljúgandi gikt" were apparently used for lethal diseases [OB].
- Ginklofi (9) –disease killing mostly newborn children; tetanus? [Schl chapt 1]
- Gula, Gulusótt (9)– jaundice
- Gúlpur (99) – bulge, swelling
- Hálfvisinn (9) – "half whithered"
- Hallæri (1) – Famine
- Hálsbólga – throat inflammation
- Hálshöggvinn (100) – beheaded
- Harðæri, harðrétti (1) – hard times, famine
- Hastarlega (dó hastarlegar) -> see bráðkvaddur
- Hiti (8)– fever
- Hjartveiki (9)– heart disease
- Hlustarverkur (100) – ear pain
- Holdsveiki (13) – leprosy
- Hugarvíl (100) – worry
- Hor (1) – Emaciation
- Hormagur (1) – emaciated
- Horsótt (1) – emaciation disease

- Hungur (1) – Hunger
- Hægðatregða (9) – Constipation
- Höfuðverkur (100) – headache
- Iktsýki (9) – Arthritis / rheumatism
- Innanmein (9) – "inner disease", might be meinlæti [OB, SP]; of 6 cases where the word occurs in isolation, 3 are outside Jan 1784-June 1785
- Innanpína (9) – „inner pain" (only 1 case)
- Innansótt (9) – „Inner illness" (only 2 cases)
- Innantökur (2) – literally "inner bouts of pain"; probably in the bowels. Highly correlates with other intestinal diseases, hence grouped there.
- Innvortis meinsemd (9) – "inner illness"
- Innvortis veikleiki (9) – "inner weakness/disease"
- Kal (12) – frostbite
- Kalda, köldusótt (9) – a relapsing fever with bouts of cold followed by hot flush.
- Karlægur (9) – bed-ridden (counted as old age if >65 years)
- Kaun (9) – sore spots
- Krefða (9) – OB has smallpox (=bóla),which does not fit here, because 1 out of 2 cases (in same parish) was before smallpox struck. (Also, in both cases the priest names "kaun" and "krefða", kaunir = sore spots)
- Kreppusótt (3) – scurvy (lit. "contraction disease")
- Kröm (9) – Chronic illness or generally wretched state. Use unclear, differing formulations, e.g. "[died] of various *kröm*", "after long *kröm*", "*kröm* of misery"
- Kvef, kvefsótt (8) – runny nose, cold ([Schl. p42] suggests the word was sometimes used for influenza on the grounds that "kvefsótt" could occur as cause of death in epidemic proportions)
- Kveisa (9) – colic
- Kverkabólga (9) – throat inflammation
- Kverkmein (8) – throat illness
- Kviðarteppa, obstruction (9) – constipation
- Kviðslit (100) – hernia (current meaning at least); some affliction of the abdomen (kviður)
- Kynsjúkdómur (9) – venereal disease
- Kýli (9)– boil, fucuncle
- Landfarsótt (4) – literary "land-travel-disease", i.e. epidemic. Schl [p46ff] argues that the name may refer to typhus or typhoid fever (which were not recognized as distinct diseases before 1850). SP suggests that while actually the word can mean any epidemic, it is in ordinary language only used for "febris continua", i.e. a disease "with fever, thirst, bone pain and hallucinations". However, parish registries give diverse and potentially conflicting descriptions. It is therefore unclear whether landfarsótt was a specific disease or whether various contagious diseases were present 1784-85.
- Langvarandi veikindi (9)– longstanding disease
- Lasleiki (9) – disease, mot feeling well (often in combination with old age)
- Lifrarteppa (9) – liver constipation?
- Lífsýki (2) – diarrhoea
- Líkþrá (13)
- Limafallssótt (13) – leprosy
- Lús (100) – lice
- Magafeber (2) – "stomach fever"
- Magapína (2) – stomach pain
- Magnleysi, Máttleysi (9) – exhaustion
- Megurð, Megrunarsótt (1) – Emaciation
- Mein (9) – disease

- Meinlæti (9) – literary "asceticism", as illness it may be linked with hydatid (worm) disease [Schl, OB]
- Meinsemd (9) – illness
- Melankólía (100) – melancholia
- Mislingar (8) – measles
- Nasablóð, nasadreyri (100) - nosebleed
- Niðurfallssótt (9) – epilepsy
- Niðurgangur/ Niðurgangssótt (2) – diarrhoea
- Næringabrestur (1) – lack of
- Ófeiti (1) – fatlessness, emaciation
- Órækt (100) – neglect
- Óþrif (1) – "not thriving", mostly mentioned together with hunger/misery (sometimes with a disease); grouped under hunger when occurring in isolation.
- Plogje (99) - ???
- Ringl (100) – confusion
- Rýrð (1)- meagerness
- Rænuleysi (100) – unconsciousness
- Sárasótt (9) – syphilis
- Scorbutus (3) – scurvy
- Skarlatssótt/skarlagens feber (8) – scarlett fever
- Skiptap (12) – shipwreck
- Skyrbjúgur (3) – scurvy
- Slag (9) – means stroke, but likely used more widely (most victims of "slag" were very young children; only used in Gullbringu- and Kjósarsýsla)
- Slys (12) – Accident
- Snófloð (12) – snow avalanche
- Snögglega (dó snögglega)– see bráðkvaddur
- Sótt (9)– illness (often in composite words)
- Steinsótt (9) – kidney stone
- Stikflod (9) – (=Niðurfallssótt, Flogaveiki) epilepsy [OB]
- Sullaveiki (9) – hydatid (worm) disease [OB, Schl]
- Sultur (1) – hunger
- Svindsótt (9). – The word suggests atrophy. However, of the 3 cases mentioned, none occurred during the main famine years. Hence counted as illness.
- Sýki (8) – disease, epidemic (mostly in composite words)
- Tak, Taksótt, Takverkur (7)[1] – sudden bout of pain. While a relation with Bornholm disease (epidemic pleurodynia) has been suggested [ÞSG], SP suggests that the word was widely used for pains in the chest cavity, and that "tak" could have many causes. Schl [p62 ff] suggests that the word describes epidemic pleurodynia and pleuritis, but that the word may have been used synonymously with influenza. Some priests also record "landfarsótt with tak", which might mean that these two could not be clearly distinguished.
- Tannpína (100 if not combined with other illness) – toothache
- Tíðarteppa – loss of menstruation (amenorrhea)
- Trösk (8) : OB suggests synonym for "munnangur" (aphtha, stomatitis), could probably be any inflammation or illness of the mouth. (only 1 case who also had a cold, grouped under 8)
- Tæring, Tærandi sjúkdómur, úttæring (9) – The word suggests atrophy/consumptipon, withering away. As opposed to "uppdráttur", the relative occurrence during the main famine years is lower; more than half of the cases occur before June 1783 or after July 1785, hence grouped under disease. [Schl] suggest hydatid disease as a possible cause for "most of those

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[1] Grouped under "landfarsótt" if both diseases mentioned.

who are listed in the pastor's books as having died from chest problems or consumption (tærende syge = tærandi sjúkdómur)"

- Uppdráttur (1) Described "lethal disease, not least after the Laki eruption" [OB]. Literary atrophy, withering. While the word might resemble words for phthisis/tuberculosis (Danish lungesvindsot [Schl]; German Schwindsucht, Auszehrung), this disease seems to have been rare in Iceland [Schl]. Schl speculates that hydatid disease (meinlæti) might have been a cause. Given the circumstances after the Laki eruption, hunger seems a plausible explanation for 1784-85. Substantial majority of "uppdráttur" cases are from Útskálar/ Gullbringusysla, following fairly closely the timing of hunger deaths there, hence grouped under "hunger".
- Uppþemba (2) – flatulence
- Úti, e.g. varð úti / fannst úti / dó úti (12, 1) – died outside (from exposure). Counted as accident; if the victim was described as a vagrant, poor person or similar, counted as hunger.
- Útslætti (9) – rash [OB]
- Vatnsbjúgur, Vatnssýki, vattersot (1) – Edema (hunger edema?) [OB]
- Velgja (2) – vomiting
- Veiki, veikindi (9) – disease
- Venerisk sygdom (9) – venereal disease
- Vepel feber (8)- ??? fever
- Verkur (9) – pain
- Vesöld / Versæld / Veslingsskapur (1) – misery
- Viðurværisleysi (1) – lack of food
- Volæði (1) – poverty, misery
- Vorbo epidemico (8) – by epidemic disease? ("vorbo" unclear, potentially mis-spelled by early 20th centrury transcriber, morbo=by disease in Latin)
- Þykkt (100) – "thickness"?
- Ætumein (9) – Cancer
- Ögnvit (100) – unconsciousnes
- Öreiga (1) – poverty

CAUSES OF DEATH - CATEGORIES

Note: In the plots, a simplified categorization was used. Category 8 and 9 were grouped under "other disease"; 10-14, 100 and 99 under "other causes, -1 was omitted.)

-1 – stillborn
Andvana
Not included in analysis (probably undercounted).

0 – unspecified
Nothing specified and not grouped under "infant" or "old age"

1 – hunger
- Hunger, meagreness: hallæri, hor, hormagur, hórsótt, hungur, megurð/megrunarsótt, ófeiti, sultur, uppdráttur)
- Misery: aumingjaskapur, bágindi, eymd, eymdahætti, kröm, rýrð, vesældar uppdrætti, vesöld, veslingsskapur, volæði, óþrif

- Poverty, lack of means: armóður, attvinnuleysi, bjargarleysi, bjargarskortur, (blá)fátækur, næringabrestur, öreiga
- Hard times: harðrétti, harðæri
- Other: bjúgsótt/bjúgur/vatnsbjúgur/vatnsótt (edema?), fannst/varð úti, úti dáinn ("found outside") if poor / homeless

2 – (hunger-related) intestinal disease
Blóðsótt, blóðkreppusótt, blóðsuppgangi, búkhlaup, diarrhea, durchlaup, dysenteria, innantökur, lifssýki, magafeber, magapína, niðurgangssótt, uppþemba, velgja

3 – scurvy
Kreppusótt, scorbutus, skyrbjúgur

4 – "landfarsótt" (word meaning epidemic, "land-travelling", disease)
landfarsótt

5 – pox
Bóla, bólusótt

6 – chest illness
Andateppa, Andþrengsli, Brjósterfiði, brjóstveiki, brjóstverkur

7 – "tak" (Bornholm disease?)
Tak, taksótt, takverkur

8 – other (probably) infectious illness
feber / hissig feber (fever), flogverkur, forkæling / forkiölelse, hálsbólga/ kverkabólga (throat inflammation), hiti, kalda, kvef/kvefsótt (cold), mislingar (measles), skarlagens fever (scarlett fever), trösk

9 – other illness, (possibly) not or weakly infectious, or simply unclear/unspecified disease.
Átumein, krabbamein (cancer), bólga, höfuðverk, colica, flogaverk, sárasótt (syphilis), flekkusótt, ginklófi (tetanus), innanmein/meinsemd, innanpína, innansótt, innvortis meisemd (inner illness), innvortis veikleiki, meinlæti, niðurfallssótt, sótt, steinsótt, svindsótt / tærandi sótt

10 – old age
Aldardómur, elli, elliburðalasleiki, elliburðir, ellilasleiki, + persons >65 years (or described as "old") without specified cause of death

11 – infant
0 years old and no cause of death specified

12 – accident
Barnssæng/ barnsfarir (childbirth), drukknaði (drowned), dó úti/varð úti (exposure; unless circumstances suggest the person collapsed from hunger), skipstap (shipwreck), kal (frostbite), vofeiflega (tragic accident)

13 – leprosy
Holdsveiki, líkþrá, limafallssýki, spítelska

14 – sudden death

Bráðkvaddur, snögglega, hastarlega

99 – very unclear

100 – other things, including diseases/symptoms that are in fact not fatal (toothache, headache, nosebleed, confusion, unconsciousness, lice) or causes that are not a disease ("anger", execution). Of course in many cases a serious underlying disease is possible even if the expression used does not directly imply it (e.g. toothache might be related to scurvy).

CAUSES OF DEATH - REFERENCES:
JS: Jón Steffensen, summary of his book about hunger diseases in Iceland:
https://timarit.is/page/2833257#page/n7/mode/2up
OB: list of old words used in historical (especially clerical) documents, Icelandic.
https://ordabelgur.skjalasafn.is/ordskyringar/
RA Ritmálssafn Árnarstofnun
http://ritmalssafn.arnastofnun.is/daemi/452868
Schl: Peter A. Schleisner, Iceland from a medical science perspective, 1849, in Danish.
https://iiif.wellcomecollection.org/pdf/b29301531
SP: Sveinn Pálsson, dictionary of Icelandic words for illnesses, 1790, in Icelandic.
https://timarit.is/page/966789#page/n139/mode/2up [First part, up to letter H]
https://timarit.is/page/966905#page/n9/mode/2up [Second part, from letter I onward]
ÞSG: Óskar Þorðarson, Björn Sigurðsson, Halldór Grímsson, Stingsótt og Coxsackie virus, 1952, Læknablaðið, in Icelandic. https://timarit.is/page/5873431#page/n3/mode/2up

Part 1.2: Other categories: Social Status, Age / Life phase, Gender, and Migration

SOCIAL STATUS - DICTIONARY
Mostly, just the singular nominative form is given here (in case of adjectives, the male form). Note that in case of family members, words such as bóndi (farmer), prestur (pastor) will appear in genitive form in the data table (e.g. barn bænda = farmer's child, kona prests = wife of a pastor).

- Á flakk (1) – trekking around, vagrant
- Á hrakningi (1) – trekking around, vagrant
- Á hrepp, kominn á hrepp (2) – supported by the hreppur, pauper, recipient of poor relief
- Á sveit, kominn á sveit (2) - supported by the region (probably the hreppur), pauper, recipient of poor relief
- Á leið (1) – trekking around, vagrant
- Á umferð (1) – trekking around, vagrant
- Aðflakkandi (1) – trekking around, vagrant
- Apótekarasveinn (7) – apothecary assistant
- Arrestant (2) – arrested person, prisoner
- Assistant (8) – assistant of a merchant, likely Danish
- Aumingi (2) – poor, wretched person
- Barn … abbreviated b (12*) – child of …
- Barnamaður – someone with (many) children
- Barnlaus – childless
- Beikir (7) – cooper
- Biskupur (8) – bishop

- Bóndi, búandi (6) – farmer. "búandi ekkja": widow who runs a farm (widows often took over the management of a farm after their husband's death)
- Brauðbítur (2) – person sustained by others ("bread biter")
- Bróðir - brother
- Búlaus (1) – homeless
- Búðarmaður (7) – shop worker
- Delinquent (2) – prisoner
- Djákni (8) – deacon
- Dóttir, abbreviated d - daughter
- Drengur – boy
- Egtabarn (12*) – legitimate child
- Eigingiftur (7*) – married
- Ekkja (10, unless otherwise specified) – widow
- Ekkill, ekkjumaður (7*) – widower
- Eleemosynariius (2) – person dependent on charity
- Fabrikumeistari – foreman of manufacture ("inréttingar" in Reykjavík, [GG])
- Faðir, abbreviated f – father
- Fálkafangari (7) – falcon catcher
- Fangi (2) – prisoner
- Fannst úti (1) – "found outside", actually cause of death; counted as vagrant if it is a "poor person" or similar
- Fáráður (2) – halfwit
- Fátækur – poor (2*)
- Félaus – penniless (2*)
- (Um)Ferðamaður/kona/… (1) travelling man/woman
- Flakkandi (1) – trekking around, vagrant
- Flakkari (1) – vagrant
- Flökkunardrengur (1) – vagrant boy
- Fór [um/í…] (1) – strayed [around, in…]
- Foreldrar – parents
- Forstöðumaður (8) – leader, foreman (of what?)
- Frá [place] (1) – from [place]
- Fósturbarn (11) – foster child
- Fyrirvinna (7) – breadwinner
- Fyrrvarandi, fyrri, fyrrum – former
- Förumaður/kona… (1) travelling man/woman
- Gamall/gömul – old
- Giftist aldrei – never married
- Giftur (7*) – married
- Göngumaður (1) – traveller, vagrant
- Hattamakari (7) – hat maker
- Hjá – at, with (e.g. living with brother)
- Hjón (7*) – married couple
- Hjú (3) – servant, farmhand
- Hospitalslimur (2) – hospital member (probably had leprosy)
- Hreppsómagi, hreppslimur (2) – pauper, recipient of poor relief from the hreppur
- Hreppur – rural municipality, group of farms, organizing poor relief and other local matters
- Húsbóndi (6) – farmer
- Húsmaður (5) – cottar, i.e. farmer who sub-lets a house and possibly land and livestock from another farmer. [GG]
- Húsfreyja (7) – housewife

- Húskona (5) – lodger woman, lived in someone's household but had independent work and typically cooked independently.
- Í fóstri (11) – fostered
- Í vist (3) – in service (with domicile)
- Jómfrú – maiden (often daughter of pastor or similar)
- Kaupmaður (8) – (Danish) merchant
- Kerling – old woman
- Klausturhaldari (8) – person who administered the land of a previous monastery or nunnery (these had become crown property after the reformation)
- Kona, abbreviated k – wife, woman
- Kotungur (5) – poor farmer (cottar?)
- Kvæntur – married
- Könnusteyparasveinn (7) – tin maker's assistant
- Landfógeti (8) – treasure (highest financial official in Iceland)
- Laundóttir, Launsonur: illegitimate daughter, son
- Lausamaður (3) – free labourer (not in fixed contract), see [GG]
- Ljósmóðir (7*) – midwife
- Lögréttumaður (8) – member of the court (likely also farmer)
- Maður – man
- Matrós (9) – sailor (on Danish ship)
- Meðhjálpari (6) – sexton, layperson performing certain tasks during church service. Probably typically farmers.
- Móðir - mother
- Niðursett, niðurseta, niðursettningur, (2) – pauper, lodging in a household who receives compensation from the hreppur
- Notarius (8)- notary
- Oeconomius (8) – financial overseer (of what?)
- Ógift - unmarried
- Ómagi (2) – pauper, recipient of poor relief from the hreppur
- Ókvæantur – unmarried
- Piltur – boy
- Prestur (8) – pastor
- Prófastur (8) – dean
- Proprietarius (8) – proprietor (of a former monastery?)
- Próventukarl (4) – man who gives another his property in return for being taken care of until death
- Ráðskona (3) – housekeeper
- Ríkur - rich
- Sjó(róðra)maður (3) – seaman, fisherman. Assumed to be farmhands going out to fish, though cottars and farmers went fishing too.
- Skómakari – shoe maker
- Spinderske (7) – wool spinning woman
- Skrifari (8) – secretary
- Sonur – son
- Stjúpdóttir/sonur – stepdaughter/son
- Stúlka – girl, maid. Interpreted as servant, if adult age and nothing else specified.
- Sveitarómagi (2) – pauper, recipient of poor relief from the hreppur
- SveitarXX (2), XX being eg. barn, aumingi… - XX recipient of poor relief, pauper
- Sýsluómagi (2) – pauper receiving relief from the county (sýsla)
- Sýslumaður (8) – country commissioner
- Systir – sister

- Tengdafaðir, tengdamóðir – father/mother-in-law
- Tekinn, tökukarl (2) – taken in, man taken in
- Tómthúsmaður (5) – cottar, but as opposed to a húsmaður, he had no land and livestock, and earned is living by fishing with the farmer's boats [GG]
- Tugthúslimur (2) – prisoner (in the prison in Reykjavík)
- Tugtmester (8) – prison overseer
- Tvígift – twice married
- Tökubarn (11) – child taken in (though not officially fostered)
- Umboðsmaður – manager (of what?)
- Umflakkandi (1) – vagant
- Umrenningur (1) – vagrant
- Ungbarn (12*) - toddler
- Unglingur – young man
- Ungmenni (13) – young man
- Uppflosnaður (1) – has given up farm, homeless
- Úr [place] (1) – from [place]
- Útan sóknar /sveitar/hrepps (1) – from outside the parish / area / hreppur [poor relief municipality]
- Varð úti (1) – "found outside", actually cause of death; counted as vagrant if it is a "poor person" or similar
- Vefari (7) – weaver
- Vegalaus (1) - homeless
- Vegfarandi (1) – travelling, walking
- Vinnuhjú (3) – servant, farmhand
- Vinnukona, vinnustúlka (3) – female servant, farmhand
- Vinnumaður (3) – male servant, farmhand
- Vistlaus (1) – without domicile
- Vitfirringur (2) – lunatic
- Yfirsetukona (7*) – midwife
- Þiggjandi (1) – beggar
- Þjóna – to serve
- Öreigi (2*) – penniless

(*) unless otherwise specified. e.g. "widow" = category 11, unless e.g. "widow with a farm", "widow pauper"

SOCIAL STATUS - CATEGORIES

0 – unspecified

1 – vagrant, beggar, fugitive
Beggar, vagrant, fugitive (e.g. "fled from the eruption"), poor persons/paupers dying of exposure,

2 – paupers, persons unable to work
Pauper (unless homeless), "penniless" (unless otherwise specified, e.g. poor farmer), prisoners, hospital members, "idiots", persons taken in by a household and not named as relatives.

3 – servants

Workmen/women, fishermen, free labourers

4 – relatives taken in
"lived with X", "proventukarl", "farmer's sister/brother/father…" (some of these may in fact have worked as farmhands)

5 – cottars with wives and children; lodgers
Húsmenn (cottars), Tómthúsmenn (cottars without livestock) with wives and children; húskona probably means a woman living with a farmer (i.e. a lodger) but working independently.

6 – farmers with wives and children
Farmers, including widows with a farm, and their wives, children, stepchildren. Meðhjálparar (sextons, laymen helping with church services) were counted here, as they were mostly farmers.

7 – unspecified married persons and their children, and special workers
"married", "child of a couple", breadwinner; cooper, weaver, hawk catcher, wool spinner, midwive (if nothing else specified). Note that special occupations like cooper or midwife may not have been full-time jobs (the persons may have also worked as farmers or farmhands), though workers in Reykjavík were likely working at the manufactures there. Married persons were likely mostly farmers or cottars.

8 – officials and merchants with wives and children
Clergy: bishops, deans, pastors; Officials: amtmenn (deputy governor), sýslumenn (county commissioners), hreppstjórar (municipality officials); doctors; students at the Latin schools; (Danish) merchants and their assistants, … and their wives and children.

9 – foreign sailors

10 – widows and widowers (otherwise unspecified) and their (step)children

11 – foster children, children in case

12 – child – unclear status of parents

13 – unclear
e.g. "twin", "old man", "unmarried"

SOCIAL STATUS - REFERENCES

GG: Gísli Gunnarsson, Monopoly Trade and Economic Stagnation: Studies in the Foreign Trade of Iceland, 1602-1787. https://babel.hathitrust.org/cgi/pt?id=uc1.b3524053&seq=3

AGE, LIFE PHASE, SEX

Age is mostly given as a number. Stillbirth are counted as 0.
Missing data is denoted by -100, but estimates were taken over (e.g. "around 40" was listed as 40).

In addition, rough categories on life phase were made as follows:
-1 stillborn
0 unknown

1 child. 0-17 years, with a few exceptions where the person was e.g. named "servant", these were counted as adult. Persons with age unknown but labelled as infant, child, boy etc are included as well.
2 adult, unknown marriage status and not "old" (see below) or "children" (see above).
3 adult, unmarried and not "old"
4 adult, married, not "old"
5 adult, widowed, not "old"
6 adult, old, unknown marriage status. A person is counted as old when at least 65 years old, and no evidence of still being at work (e.g., a person ≥65 years old who is a farmer, servant etc is not included, neither are persons described as farmer's wife), or when the age is not known or somewhat below 65 but the person is described as old, age-worn etc.
7 adult, old, unmarried
8 adult, old, married
9 adult, old, widowed

Sex:
0 = male
1 = female
-1 = unknown

MIGRATION

We analyse migration at county (sýsla) level.
Regions of origin are denoted by the following numbers:

0 Non-migrant
1 Rangársýsla
2 Árnessýsla
3 Gullbringu- and Kjósarsýsla
4 Borgarfjarðarsýsla
5 Mýrasýsla
6 Snæfellssýsla
7 Dalasýsla
8 Barðarstrandasýsla
9 Ísafjarðarsýsla
10 Strandasýsla
11 Húnavatnssýsla
12 Skagafjarðarsýsla
13 Eyjafjarðarsýsla
14 Þingeyjarsýsla
15 Norður-Múlasýsla
16 Suður-Múlasýslasýsla
17 Austur-Skaftafellssýsla
18 Vestur-Skaftafellssýsla (including "from the East", "from the eruption")
50 "North" (Húnavatns- to Þingeyjarsýsla)
99 Unspecified (e.g. "from outside the parish" or unknown placename)
-1 From outside Iceland

When pastors listing a place of origin noted a place (farm, parish, hreppur), we tried to locate it and assign the county. In case two places of that name occur in different counties, we assumed that the nearer one was meant, when both are similarly far away, we listed the case as "unspecified".

Migrants within a county are denoted by their county rather than non-migrant (0).
For our analysis, we combined the Vestur- with Austur-Skaftafellssýslur and Suður- with Norður-Múlasýslasýsla.

When a person was said to come from "the east", which traditionally denotes the eastern quarter, i.e. Skaftafells- and Múlasýslur, we assumed that the person came from Vestur-Skaftafellssýsla, the county containing the volcano, because it provided far more fugitives than the rest of the eastern quarter.
People "from the North" / "Northerner" were put into their own category in the dataset (50), but for our analysis, a for every "Northerner" a weight of ¼ was added to the for northern counties, Húnavatns- to Þingeyjarsýsla.
"Unspecified" migrants were distributed as described in the main paper.

Part 1.3: Treatment of missing data

Missing data were corrected for in three instances accounding for 60 deaths in total.
In Sauðanes (Þingeyjarsýsla), the pastor explained that his list for 1784 was incomplete, as an additional 48 persons had died, nearly all from hunger. Therefore, 48 additional deaths from hunger were added to the 1784 Þingeyjarsýsladata, with assigned months of death following the seasonal pattern of the rest of Þingeyjarsýsla in 1784. In addition, additional deaths were included for Útskálar parish in Gullbringu- and Kjósarsýsla, where data for March-June 1784 are missing, such that the seasonal distribution in that parish matches that of the rest of the county; the cause of death is given as "unspecified". Three persons from Vallanes (Suður-Múlasýsla) who according to the pastor died and were buried 10km to the north of his church were included as well.

SUPPLEMENT 2: COUNTY DATA TABLES

In the following, we present in tabulated form the data displayed in fig. 1a,b, 2 a-c, and 5a.

Population 1783 and 1703, and animal ownership 1703 (data for fig. 1)

County	Pop 1783	Pop 1703			Cow equiv. 1703		
		No fish	Summer	Winter	No fish	Summer	Winter
Skaftafells	3053	2842	105	0	3365	107	0
Rangárvatns	4666	4256	0	339	6610	0	135
Arnes	4950	4569	0	601	5761	0	355
Gullbringu	3270	119	0	2050	113	0	1008
Kjósar		1304	88	433	816	119	282
Borgarfjarðar	1814	1455	235	389	2075	319	225
Mýra	1757	1581	120	85	2519	160	82
Hnappadals		578	46	12	922	81	22
Snæfellsnes	3798	1071	272	2562	1101	135	907
Dala	1929	1821	125	0	2226	108	0
Barðastrandar	2434	1254	1125	200	978	715	114
Ísafjarðar	3738	1940	1017	826	1180	685	551
Strandar	999	357	682	0	309	640	0
Húnavatns	3021	2300	407	0	3324	666	0
Skagafjarðar	3415	2740	404	0	3511	444	0
Eyjafjarðar	3676	2691	370	0	3140	356	0
Þingeyjar	3634	2247	682	0	2538	768	0
Múla	3801	2383	1718	0	2077	1083	0

County-level population in 1783 (column 2) and 1703 (column 3-5), and animal ownership 1703 (column 6-8; 1 cow equivalent is 1 cow or 6 ewes). The 1703 population is split into persons with no access to fisheries (No fish), access in summer only (Summer) and access also in winter (Winter). Cow equivalent ownership is given for each group separately. Counties are ordered clockwise, starting in the southeast. In 1783, Gullbringu- and Kjósarsýsla were treated as one unit and Hnappadalssýsla was split between Mýra- and Snæfellsnessýsla.

Deaths and farm abandonment during the eruption (data for fig. 2)

County (sýsla)	Abs. Number of deaths				Deaths per 1000 inh *				farms	
	1783	1784	1785	mean	1783	1784	1785	mean	aband.	total
Skaftafells	83	324	271	77	27	106	89	26	51	250
Rangárvatns	106	322	427	141	23	69	92	30	40	489
Arnes	91	289	479	162	18	59	97	31	58	416
Gullbringu	125	431	911	159	38	132	279	45	4	139
Kjósar									3	90
Borgarfjarðar	40	136	258	52	22	75	158	28	21	232
Mýra	31	172	291	37	18	89	166	21	35	191
Hnappadals									14	74
Snæfellsnes	102	353	667	114	27	93	176	29	12	200
Dala	30	313	158	41	16	69	83	22	19	205
Barðastrandar	65	155	211	73	27	64	87	30	2	188
Ísafjarðar	105	276	165	96	28	74	44	26	7	284
Strandar	19	96	117	24	19	96	117	23	24	131
Húnavatns	55	413	442	62	18	138	147	21	111	439
Skagafjarðar	79	439	341	84	23	129	101	25	75	439
Eyjafjarðar	83	637	343	85	23	175	94	24	47	464
Þingeyjar	105	898	220	66	29	246	60	19	120	472
Múla	108	371	298	97	28	97	78	26	113*	518*

Absolute number of deaths in 1783, 1784, 1785 and the mean over 1773-82 (column 2-5), death rates in 1783, 1784, 1785 and the mean over 1773-82 (column 6-9, in deaths per 1000 inhabitants), and the number of abandoned farms (column 10) and total number of farms (column 11). In death data, Gullbringu- and Kjósarsýsla were treated as one unit and Hnappadalssýsla was split between Mýra- and Snæfellsnessýsla. For computing death rates in the years 1783, 1784, 1785, the estimated population for early 1783 was used, because migration makes estimates for 1784, 1785 too unreliable. For the years 1773-82, the beginning of the corresponding year was used.
(**) of these farms, at least 69 were already abandoned (long) before the eruption; not counting previously abandoned farms yields 44 newly abandoned farms out of 449.

Animal ownership 1785 vs 1703 (data for fig. 5)

County (sýsla)	1785			1703		
	Ewes	cows	horses	Ewes	cows	horses
Skaftafells	1136	732	813	7912	2152	2456
Rangárvatns	4554	1949	2725	21560	3152	4757
Arnes	2386	1494	1621	14962	3622	3095
Gullbringu	1369	566	304	1414	855	527
Kjósar	600	421	399	2061	874	540
Borgarfjarðar	759	417	440	6988	1455	1307
Mýra	595	333	372	10165	1066	1294
Hnappadals	441	199	157	3617	422	394
Snæfellsnes	1710	408	456	5317	1248	924
Dala	2150	548	497	8032	995	1183
Barðastrandar	2345	683	394	4869	995	418
Ísafjarðar	5011	812	488	7849	1108	692
Strandar	1472	219	203	3683	335	297
Húnavatns	2735	858	719	16020	1320	2188
Skagafjarðar	3210	1014	815	15394	1389	2490
Eyjafjarðar	3581	810	955	13858	1151	1662
Þingeyjar	3521	561	500	13251	961	1150
Múla	6320	874	970	10937	1339	1409

Number of ewes, cows and horses in each county in 1785 and 1703.

SUPPLEMENT 3: PARISH DATA - ADDITIONAL PLOTS

Part 3.1: Dependence of death cause on age and status

CAUSES OF DEATH - AGE DEPENDENCE
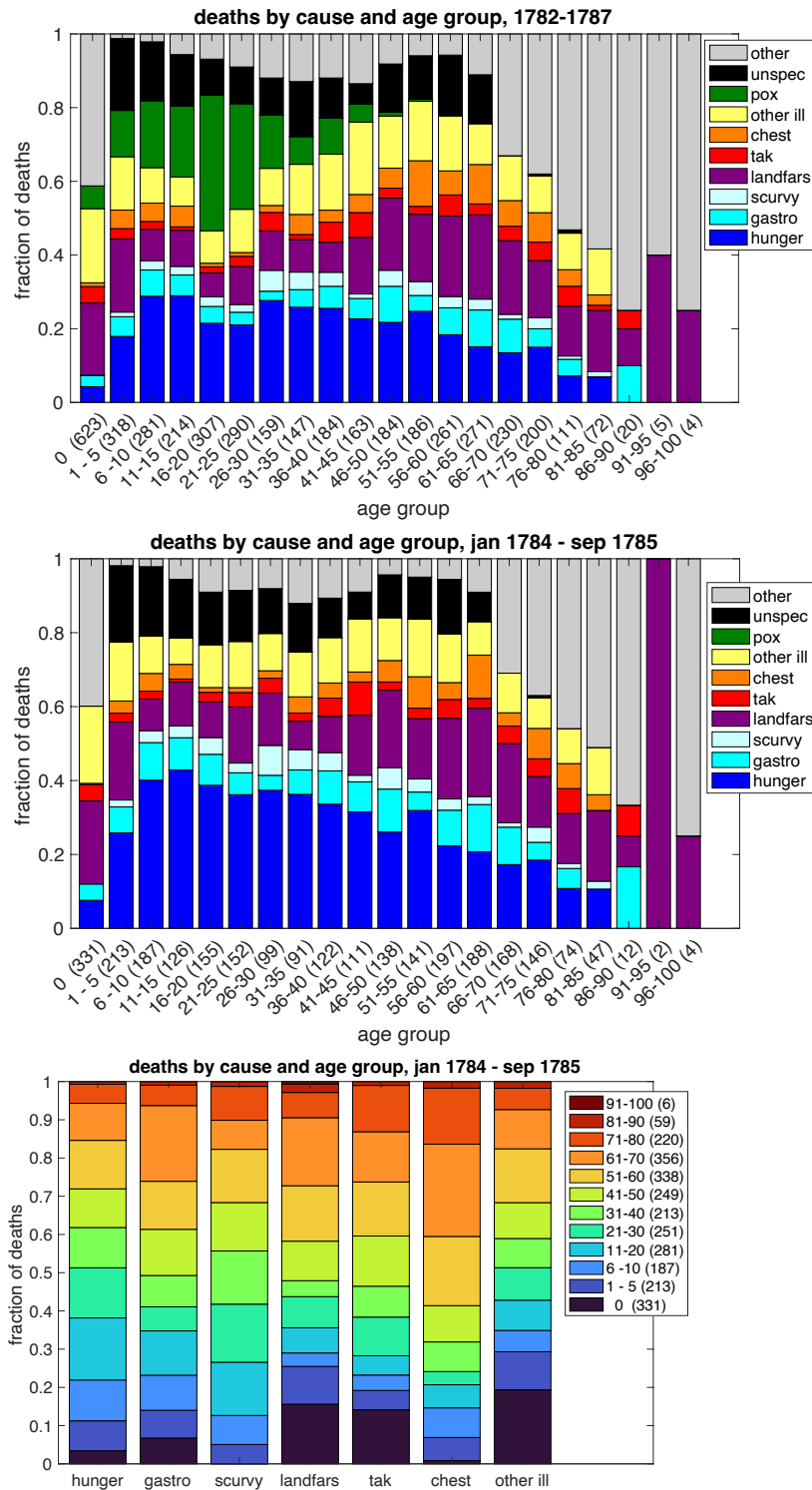
Fig. S1: Dependence of causes of death on age. Top: Distribution of deaths in each age group over causes for the whole country and years 1782-1787. Middle: As top, but only Jan 1784 - Sept. 1785. Bottom: Distribution of deaths by selected causes over age groups for Jan 1784-Sept 1785. Numbers in parentheses are the total number of deaths in each age group.

CAUSES OF DEATH - STATUS DEPENDENCE
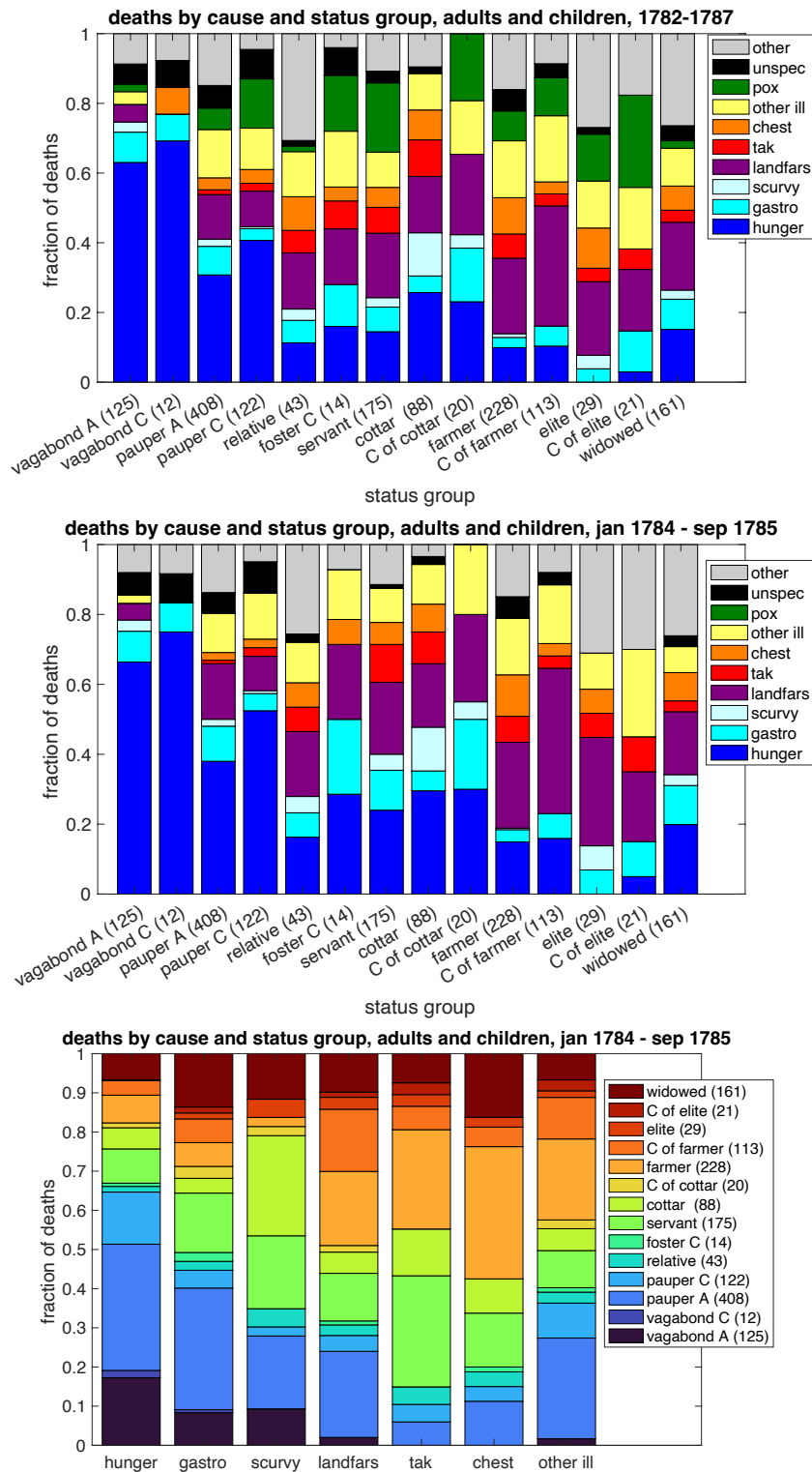
Fig. S2: Dependence of causes of death on social status. Top: Distribution of deaths in each status group over causes for the whole country and years 1782-1787. Middle: As top, but only Jan 1784 - Sept. 1785. Bottom: Distribution of deaths by selected causes over status groups for Jan 1784-Sept 1785. Numbers in parentheses are the total number of deaths in each status group.
Abbreviations: A = Adults (16 years and older), C = Children (younger than 16 years). "C of X" means children of X. In the case of "Vagabond C" both children of vagabonds and vagabonds <16 years were included; same for "Pauper C". Elite = status category 8 (officials, pastors, merchants etc).

Observations:

The high number of "other" causes for children of 0 years and old persons (≥65 years) is partly due to the fact that unspecified deaths for these age groups were categorized under "infant" and "old age" respectively, both of which are grouped under "other".

Hunger was relatively more prevalent among older children and younger adults, whereas landfarsótt and tak were more prevalent among very young children and the elderly. There are two possible explanations, not mutually exclusive: Older children and younger adults may have been more susceptible to hunger, for example for physiological or social reasons, or this group was less susceptible to disease (except smallpox), so that hunger cases made up a greater fraction of the total deaths.

Smallpox are much less likely to attack people old enough to have lived through the previous outbreak.

Not surprisingly, hunger was most common among vagabonds, followed by paupers. In the case of vagabonds, who often were found dead outside, diagnosis may be skewed towards hunger. Farmers and their children were less likely to die of hunger, but were not exempt. Cottars and servants figure between farmers and paupers. The elite was rather unlikely to die of hunger (1 case in 50 deaths, when children are included).

The high prevalence of scurvy among cottars is probably due to the fact that many cottars lived in the fishing districts, where milk and meat were scarce and scurvy thus frequent.

It would be interesting to investigate how the risk of dying during the famine differed among age and status groups, e.g. by computing group-specific death rates. However, this would require census data to establish the number of people in each group plus information on how these groups changed (e.g., farmers fleeing and becoming vagabonds; fugitives settling in fishing districts). This information is not available.

Part 3.2: Relation between various "independent" causes of death and hunger
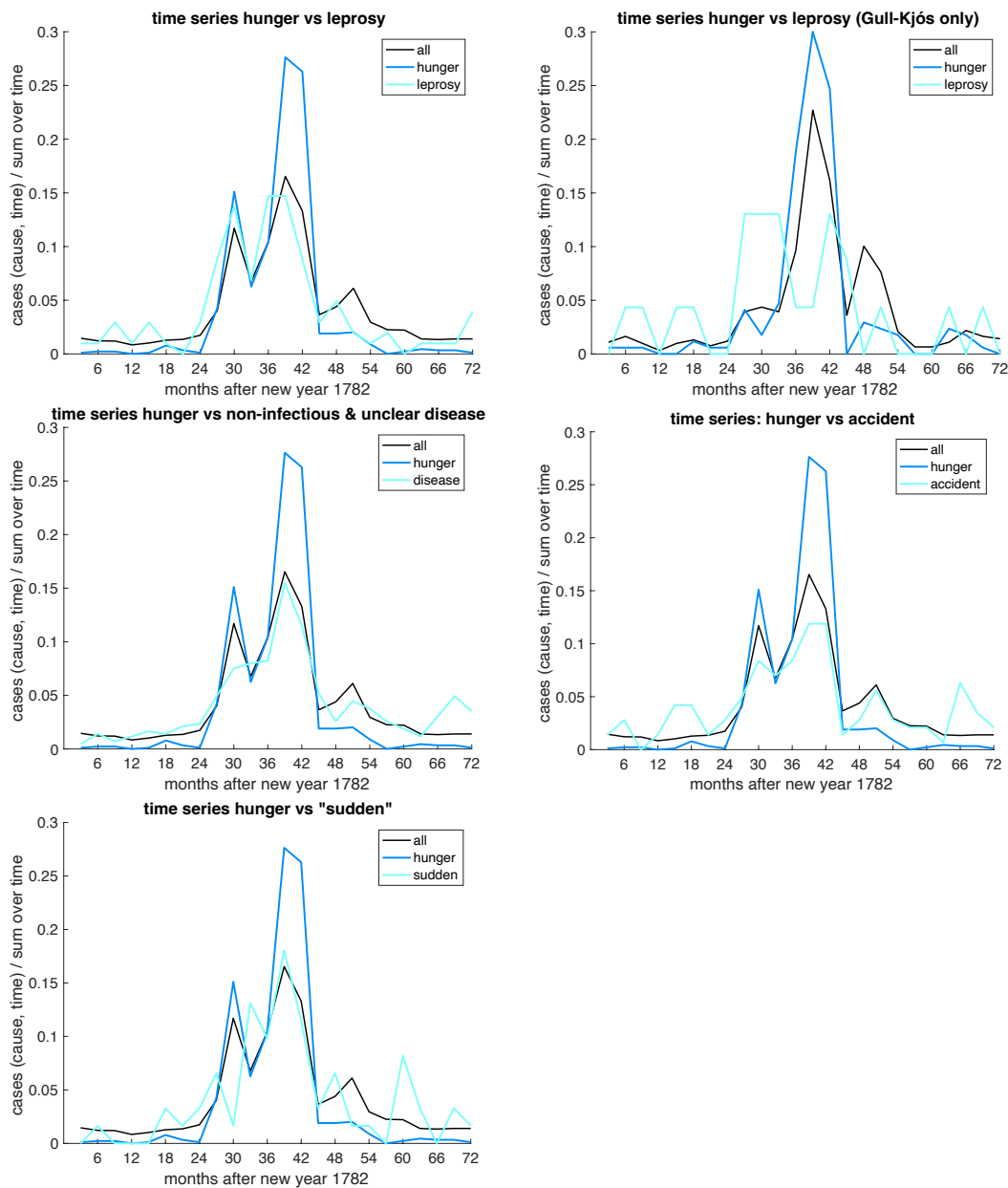
Fig. S3: Comparison of the time trajectory between hunger and various, nominally unrelated causes of deaths, namely leprosy (top; whole country, left and the southwestern Gullbringu- and Kjósarsýsla, right), non-infectious and unclear/unspecified diseases (middle left), accident (middle right) and "sudden death". "All" refers to all causes. Time series are defined as D(c,t)/D(c), where D(t,c) is the number of deaths from cause c at time t, and D(c) the number of death from cause c over all times; time is taken in 3-month blocks.

Observations:

Even seemingly unrelated causes of deaths increase during times of hunger, albeit with less pronounced peaks (fig. S3). Deaths from leprosy even seem to peak somewhat before hunger. This can be seen even clearer when considering only one region, Gullbringu- and Kjósarsýsla, to avoid different reporting quality in regions with different time trajectories. Physically weakened and socially marginalised, leprosy victims may have been among the first to lack sufficient food, and starvation, rather than leprosy itself, may have been the proximal cause of death. For a possible relation between "sudden death" and hunger, see SM1.1 under "bráðkvaddur".