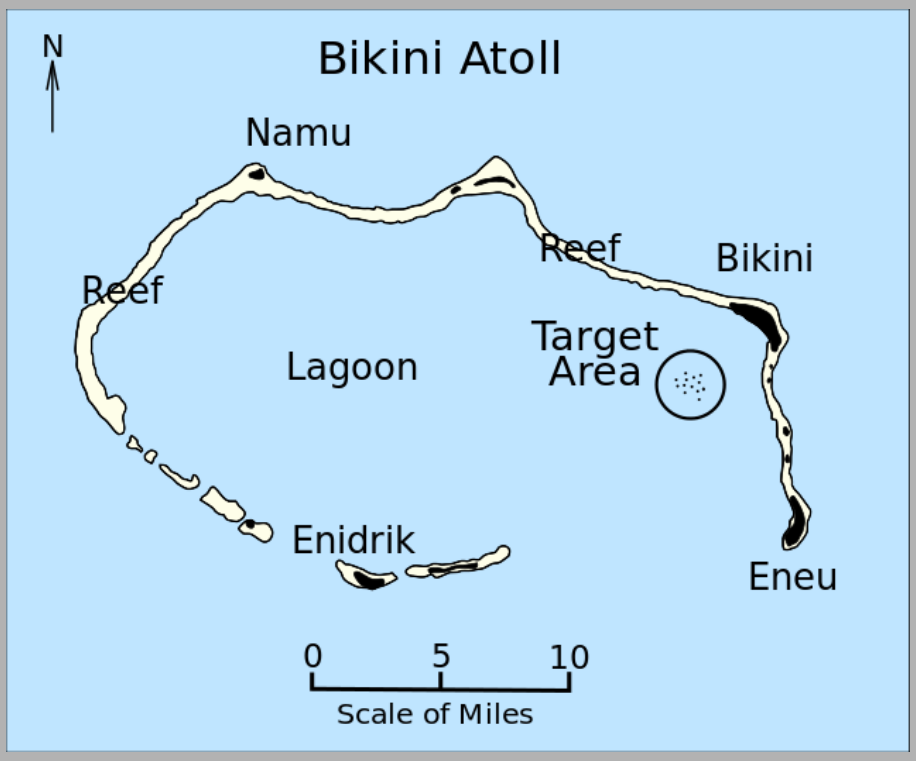
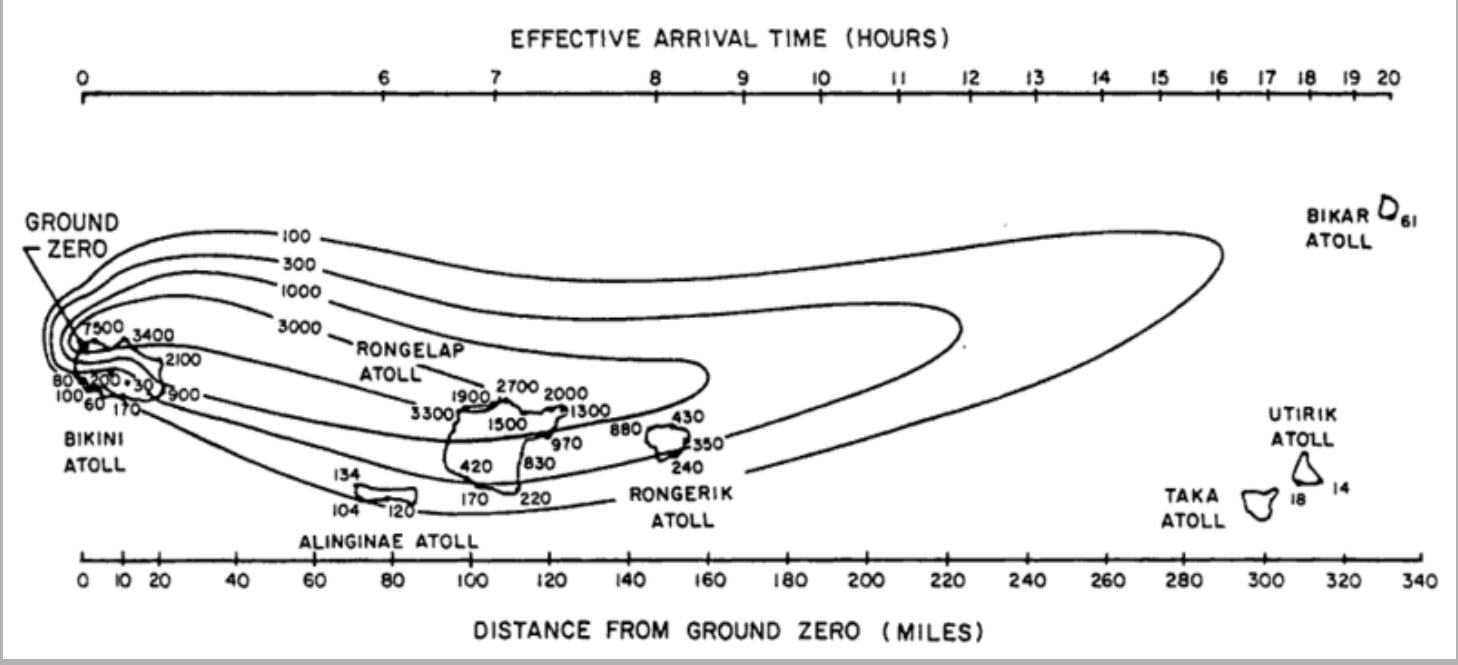
Nuclear testing on Marshallese Islands: Medical Consequences

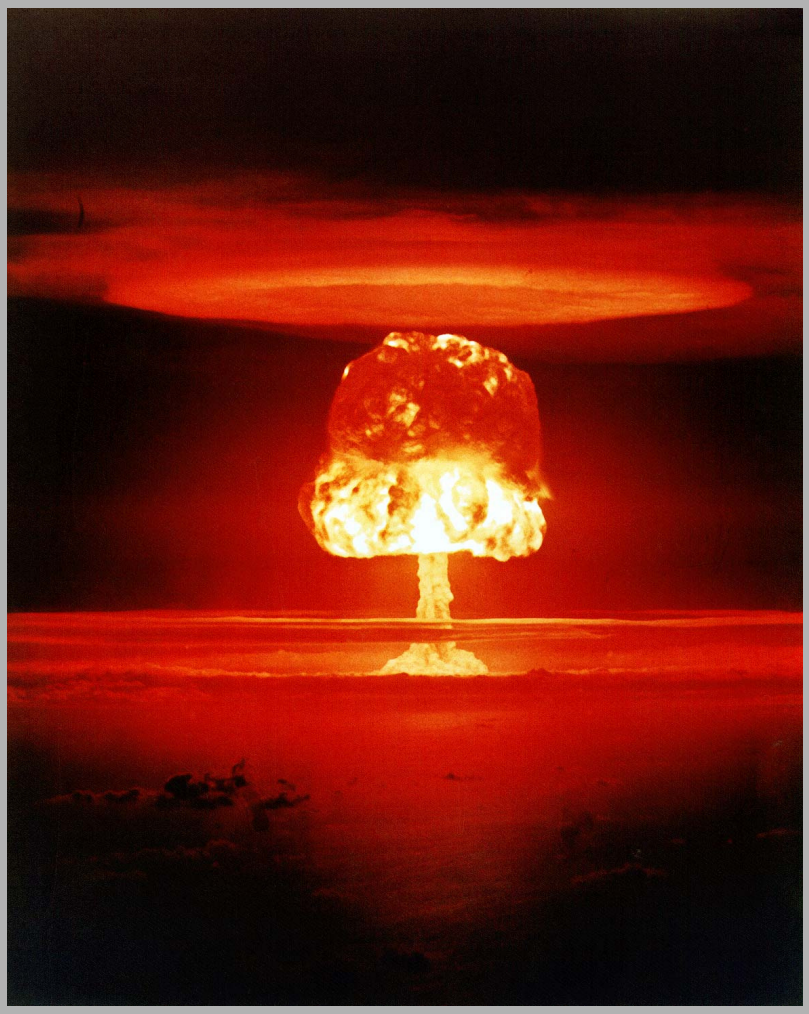
The United States detonated a total of 66 nuclear tests on Bikini Atoll in the Marshallese Islands, with Castle Bravo yielding the largest Mt of TNT and radioactive fallout. This contamination affected the neighbourhood atolls and leached into the water, air, and the food system. However, only the inhabitants of Rongelap Atoll and Utirik Atoll were evacuated within 72 hours of the detonation, while the neighbouring inhabitants stayed on their respective islands.



Money was placed aside as a so-called reward to the Bikinians of $563 million, meant to go towards cleanup and repair, however, this does not undo the damage and cover the medical costs. It was argued that the tests were carried out to observe the effects of a nuclear attack on various transportation vessels, radio and radar equipment, animals, ammunition, food, clothing and medicine, seismic and climate changes. However, with the United States in competition with other emerging nuclear power hungry states, it is argued that **this was a demonstration of power**.



It was known that these tests would have significant radiation contamination which was planned to be cleaned up and salvage anything left at the testing sites to sell for scrap. The cleanups, with inadequate equipment and inexperienced staff, conducted during the testing period proved to be insufficient. No one was prepared to encounter such large detonations and the radioactive fallout. It was falsely believed that the contamination could be scrubbed off, sandblasted and tripped with nitric acid. This was a futile attempt to decontaminate and offset costs. These methods were all entirely ineffective against the contamination, thus the United States decided to purposefully sink these ships. Unfortunately the contamination was not controlled and spread from the target fleet and infected the water supply.



"AT THE TIME OF THE BOMB ALL OF THE PEOPLE OF AILUK SAW A GREAT FLASH OF RED LIGHT IN THE WESTERN SKY AROUND 6:00 IN THE MORNING. AFTER ABOUT FIFTEEN MINUTES THERE WAS A GREAT EXPLOSION THAT SHOOK ALL OF THE HOUSES, AND I THOUGHT IT WAS GOING TO KNOCK ALL OF THE HOUSES DOWN. "

From the Castle Bravo incident, a secret study Project 4.1 was created to study the effects of radioactivity on humans which was conducted **without their informed consent**. From this scientists were able to gain knowledge on radiation exposure treatment, cancer, thyroid disease and the effect of radiation on child growth. All of this is a significant contribution to what is now Western medicine.

The contamination of radiation required an immediate evacuation and relocation which was meant to serve as temporary housing. However, other islands were unable to sufficiently accommodate for an increased number of occupants. Thus, the Marshallese faced poverty and starvation.

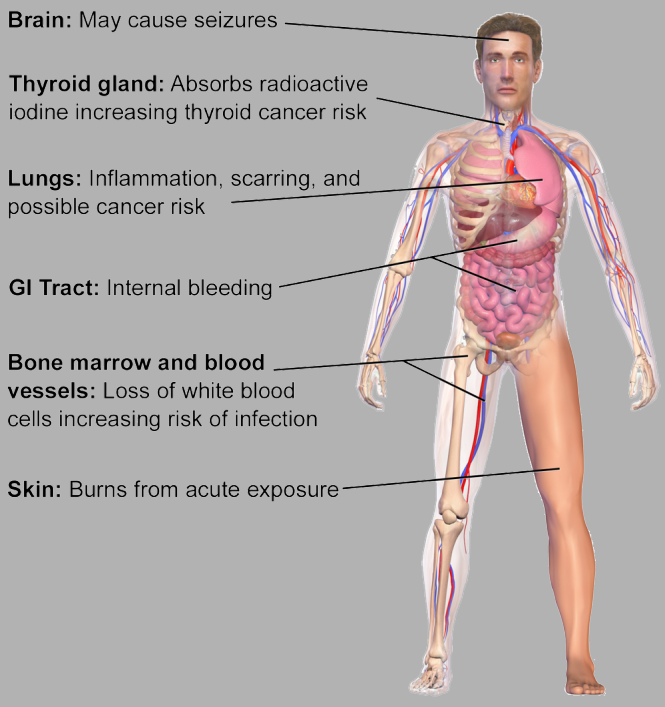
From a genetic standpoint, comparing health statistics against those of the people of the United States, the Marshallese are more prevalent to diabetes 2, hepatitis B, tuberculosis, Hansen's disease and other chronic diseases. They also have high rates of low-birth weight infants.

The contamination also spread to the environment, which includes the soil, bodies of water and the food resources.

The Marshallese relied heavily on coconuts as part of their diet and infrastructure, however they were =one of the most contaminated fruits, which meant that many were exposed to secondary contamination.

Lack of native food meant a heavy reliance on imported goods. Such large consumptions of imported food increases the prevalence of non-radiation health concerns, i.e. diabetes.

Radiation can produce both immediate and long term effects as well as death. These include skin burns, hair loss, skin lesions, depigmentation and acute radiation syndrome. Large doses can lead to vomiting, diarrhea, cancer and cardiovascular problems.



Selected Risks from Radiation Sickness

"THEY MADE US BATHE THREE TIMES A DAY BECAUSE THEY SAID OUR ILLNESSES WERE OF A NEW TYPE AND THERE WAS NO MEDICINE FOR US."

"MY EYES FELT LIKE THERE WAS SOMETHING IN THEM AND THEY BECAME IRRITATED. THE POWDER WAS YELLOWISH AND WHEN YOU WALKED IT WAS ALL OVER YOUR BODY. THEN PEOPLE GOT WEAK AND BEGAN TO VOMIT."

"I THEN WARNED THE PEOPLE NOT TO DRINK FROM THESE WATER CATCHMENTS, AND TOLD THEM TO ONLY DRINK 'NI". THEN PEOPLE BEGAN TO GET SICK WITH VOMITING, ACHES ALL OVER THE BODY, EYE IRRITATIONS, AND GENERAL WEAKNESS AND FATIGUE."

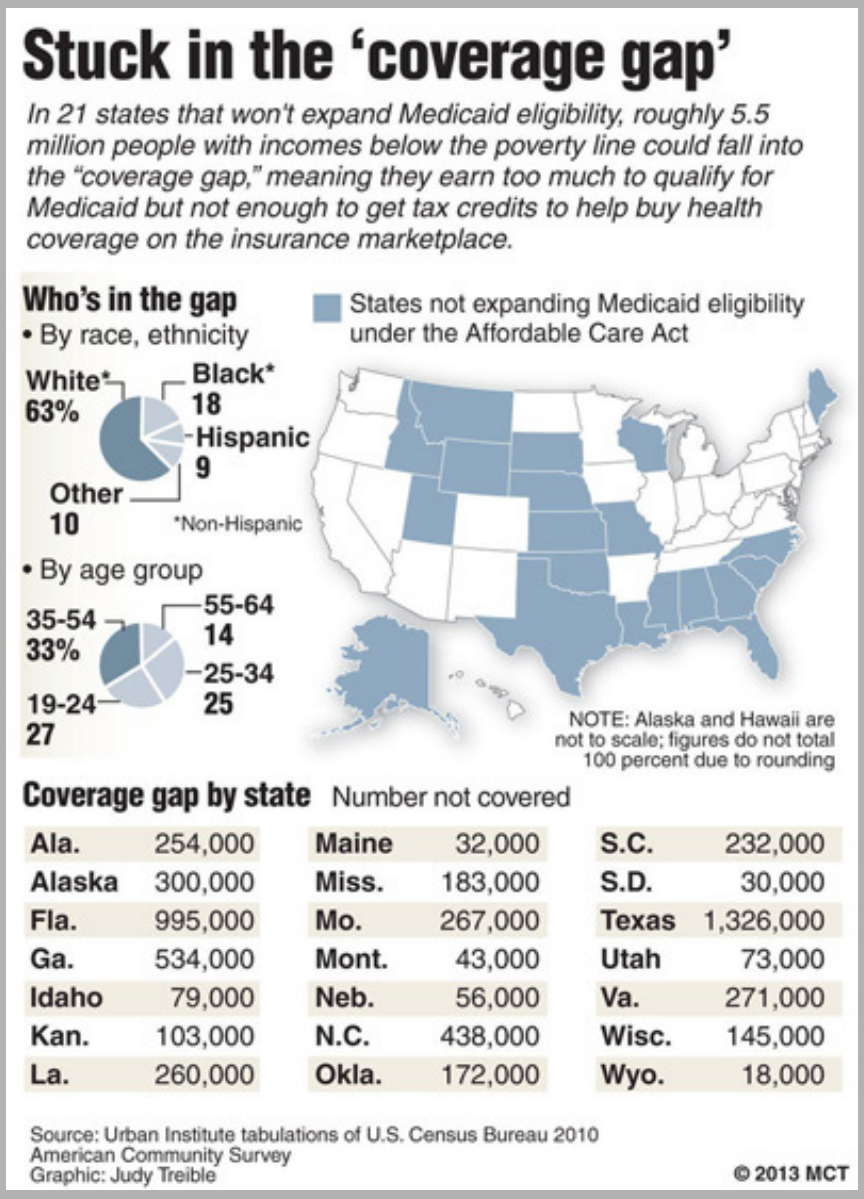
"IN KWAJALEIN WE WERE VERY SICK AND IN MUCH PAIN, WITH BODY BURNS AND BLEEDING ON OUR NECKS AND FEET."

"MY SON HARRIS-WHO WAS ONE YEAR OLD AT THE TIME-WAS ALSO ILL. I RECALL THAT MY ARMS ITCHED FROM THE POWDER. LATER, I HAD MANY 'AJIBUN', AND ALSO SEVERAL OF MY BABIES WHO WERE HEALTHY AT THE TIME THEY WERE BORN DIED BEFORE THEY WERE A YEAR OLD AFTER GETTING SICK. ALTOGETHER I LOST FOUR BABIES. "

"FROM THE BEGINNING OF THE TESTING PROGRAM IN OUR ISLANDS THE UNITED STATES HAS TREATED US LIKE ANIMALS IN A SCIENTIFIC EXPERIMENT FOR THEIR STUDIES. THEY COME AND STUDY US LIKE ANIMALS AND THINK OF US AS 'GUINEA PIGS.' WE ARE GUINEA PIGS."

Excerpts taken from interviews and transcribed to English available on Atomicatolls.org.

In 1986, the Compact of Free Association [COFA] was established between the United States with Federal States of Micronesia, the Republic of the Marshall Islands and the Republic of Palau. This agreement allows for the citizens of these nations to freely enter, live and work in the United States. While the United States provides financial assistant over fifteen years in return for exclusive military control. One of the benefits that COFA migrants receive is the eligibility to social programmes including Medicaid. In 1996, COFA migrants were excluded from such benefits due to the passing of Personal Responsibility and Work Opportunity Reconciliation Act [PRWORA]. The idea of this was the belief that those receiving welfare became too dependent on public assistance and it was not helpful enough to push those people out of poverty.



The majority of Marshallese migrants reside in Hawaii and Arkansas. This mass migration was due to the hiring of a large working force from by poultry meat distribution company. The next two pages will outline the policies and accessibility regarding health insurance available to COPA migrants in those two states.

COFA MIGRANTS' HEALTH INSURANCE PROGRAMMES TIMELINE HAWAII

Economic hardship

Hawaii cites economic hardship and begins to disenroll COFA migrants from Med-QUEST, leaving them with Basic Health Hawaii.

2009

Federal Class Action

COFA migrants filed a successful lawsuit stating that such action violates their rights due to inadequate notice to residents.

Children's Health Insurance Program

This is a jointly funded federal and state programme covering for children in families who cannot qualify for Medicaid and cannot afford private health insurance. COFA children are ineligible for CHIP due to PRWORA

Children's Health Insurance Program Reauthorization Act

Hawaii extended CHIP benefits to COFA children.

Response July - December

Department of Human Services implemented Basic Health Hawaii. COFA children were not moved to Basic Health Hawaii in 2010.

2010

Temporary injuction

This was issued by the Federal District Court restraining Hawaii's Department of Human Services

December

The District Court issued a preliminary injunction stopping Basic Health Hawaii and restoring Med-QUEST. This was a violation of the fourteenth amendment to the US Constitution.

Removing the injunction April 1st

3 judge panel removed injunction noting that Hawaii has no constitutional obligation to make up for the lack of federal funding thus announcing 7400+ residents that are not pregnant, aged, blind, or disabled will be removed from Med-QUEST within 120 days.

2014

Private health insurance is hard to obtain due to the nature of its cost. The job only covers limited insurance and it typically does not extend to multiple family members.

COFA MIGRANTS' HEALTH INSURANCE PROGRAMMES

ARKANSAS

- Arkansas does not offer Medicaid or any alternative health insurance since PWRORA.
- COFA children are ineligible for ARKids First, thus many children are without health insurance.
- Arkansas needs to submit a state plan amendment to Medicaid Services to obtain approval for children to be eligible for ARKids - there does not seem to be any intention of doing so
- Affordable Care Act allows for subsidized health care plans for purchase and expanding Medicaid for more residents. Arkansas chose to use Medicaid funds to purchase private health insurance for those elligible. Due to PWRORA. COPA migrants are not eligible.
- COFA migrants are required to purchase health insurance through the Qualified Health Plan. Lack of a plan leads to penalties.
- COFA migrants are eligible for premium tax credit subsidies and cost-sharing reductions, but not for Medicaid-funded plans. Thus leaving plenty of plenty of people unable to afford health insurance.

As of more recent days...

Recent studies conducted on the Marshall Islands have concluded that it is still not safe to return to them. Columbia claims some parts contain well above legal exposure concentration of nuclear isotopes almost double of what is considered to be safe for human habitation, but in general radiation levels are decreasing.

Multiples tests have been run on the islands, and the conclusions have ranged between safe enough to normally inhabit, to being incredibly radioactive to safe enough to live but not safe enough to consume anything native.

In 2014, there was a lawsuit "Nuclear Zero Lawsuit" filed against the US and either other nuclear armed forced. The Nuclear Non-Proliferation Treaty of 1968 was meant to move towards the disarmament of nuclear weapons and The US was not honouring this as it was planned to spend an estimate of $1 trillion towards nuclear weapons over the next three decades. This case was dismissed in 2015 by the 9th Circuit Court of Appeals.

Cleanup of the radiation fallout is still occurring on the islands in the hopes of one day being able to move back. Very few people live there, mostly consisting of researchers and caretakers. While that still is happening, the Marshallese are advocating for compensation and remembrance. There are many activists with the goal of ensuring the US pays compensation; raising awareness about health consequences from the testing and the current political affiliations and what they mean. Reestablishing their homes and ensure their history and culture is passed on to the next generation.

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US nuclear weapons test at Bikini in 1954
Credit: US Government
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US nuclear weapons test at Bikini in 1954
Credit: US Government
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