

# Effect of US Health Policies on Health Care Access for Marshallese Migrants

Pearl Anna McElfish, MS, MBA, Emily Hallgren, MA, and Seiji Yamada, MD, MPH

The Republic of the Marshall- Islands is a sovereign nation previously under the administrative control of the United States. Since 1986, the Compacts of Free Association (COFA) between the Republic of the Marshall Islands and the United States allows Marshall Islands citizens to freely enter, lawfully reside, and work in the United States, and provides the United States exclusive military control of the region.

When the COFA was signed, COFA migrants were eligible for Medicaid and other safety net programs. However, these migrants were excluded from benefits as a consequence of the Personal Responsibility and Work Opportunity Reconciliation Act.

Currently, COFA migrants have limited access to health care benefits in the United States, which perpetuates health inequalities. (*Am J Public Health.* 2015;105:637–643. doi:10.2105/ AJPH.2014.302452)

#### THE REPUBLIC OF THE MAR-

shall Islands is an archipelago that covers the largest area of ocean in the region of Micronesia. The sovereign nation was previously under the administrative control of the United States from 1947 until 1986 as part of the United

Nations Trust Territory of the Pacific Islands and was the principal site of the US nuclear testing program in the Pacific Islands.<sup>1</sup> The Compacts of Free Association (COFA) between the former trust territories of the Pacific Islands (the Republic of the Marshall Islands [1986], the Federated States of Micronesia [1986], and the Republic of Palau [1994]) and the United States allows citizens of these nations to freely enter, lawfully reside, and work in the United States.<sup>2</sup> Citizens of these nations are known as COFA migrants to distinguish them from immigrants subject to US Citizenship and Immigration Services.<sup>2</sup> The COFA with the Republic of the Marshall Islands provides the United States with exclusive military use and control of 2 million square miles of ocean and land. The United States maintains a military installation on Kwajalein Atoll in the Republic of the Marshall Islands, the Ronald Reagan Ballistic Missile Defense Test Site, and leases 11 of the 97 islands for military activity.<sup>1,3</sup>

COFA migrants are legally considered "nonimmigrants without visas."<sup>4(p9)</sup> The vast majority of COFA migrants living in the United States are noncitizens, and their status limits their access to many public benefits.<sup>5–7</sup> COFA migrants have been largely forgotten in the ongoing immigration policy debates, which focus primarily on immigrants from Latin America. Limited literature exists on how current health policies affect COFA migrants, both at the federal level and in states with large populations of Marshallese migrants.

We present an overview of health policies limiting health care access for Marshallese persons living in the United States, discuss the historical and current relationship between the United States and the Marshallese people living in both the Republic of the Marshall Islands and the United States, and offer policy recommendations to improve health care access and reduce health inequalities for Marshallese persons living in the United States. Although many of the policy considerations apply to all COFA migrants, the Marshallese people have a unique historical relationship with the United States, and the United States has used the Marshall Islands to advance its health, welfare, and strategic military position. Therefore, we focus our discussion on Marshallese migrants.

Most health policies affecting COFA migrants living in the United States are made at the federal level. Federalism's diffusion of power allows states to implement federal policies with some variance.<sup>8</sup> Hawaii and Arkansas are home to the largest populations of Marshallese migrants in the United States.<sup>9</sup> We discuss how Arkansas's and Hawaii's policies in regards to Marshallese migrants differ.

#### **US NUCLEAR TESTING**

Between 1946 and 1958, the US military tested nuclear weapons on several of the Marshall Islands.<sup>1,10–12</sup> These tests were equivalent to 7200 Hiroshima-sized bombs. The largest test, Castle Bravo, carried out on March 1, 1954, had a vield of 15 megatons (>1000 times the yield of the bomb dropped on Hiroshima, Japan) and exposed Marshall Islanders to significant levels of radiation.<sup>1,10–31</sup> People who inhabited the test sites were relocated. However, Marshallese persons living on nearby atolls were not relocated and were exposed to nuclear fallout.<sup>19,20,25,30-36</sup> They subsequently consumed contaminated water, plants, seafood, and reef resources.<sup>1,11-13,25,33,37,38</sup> The nuclear testing caused ongoing ecological and health effects. These atolls remain contaminated,<sup>1,11–13,25,33,37–39</sup> and the traditional lifestyle and diet of Marshall Islanders have been altered.<sup>40,41</sup> The Atomic Energy Commission lists the Republic of the Marshall Islands as one of the most contaminated places in the world,<sup>10</sup> and several studies confirm ongoing



health effects from the nuclear testing.<sup>11–18,23,24,26,28–31,35,38,42–51</sup>

After Marshall Islanders were exposed to fallout from the 1954 Castle Bravo nuclear test detonated on Bikini Atoll, US government scientists set up Project 4.1 to study the effects of radioactive fallout on humans.<sup>1,38,46,49,52,53</sup> Exposed Marshall Islanders were brought to Kwajalein Atoll to be studied.<sup>1</sup> The objectives of Project 4.1 were to

> (1) evaluate the severity of radiation injury to the human beings exposed, (2) provide for all necessary medical care, and (3) conduct a scientific study of radiation injuries to human beings.<sup>54(p194)</sup>

This research was conducted without the informed consent of Marshall Islanders and without translation of the information into the Marshallese language.1 The results of Project 4.1 contributed to the corpus of medical knowledge on the treatment of radiation exposure, cancer, and thyroid disease and provided new information on child growth.13,14,18,23,26,28,29,31,38,43-46,51,55-57 Official US military reports maintain that the nuclear fallout exposure of Marshall Islanders was accidental.45-47,51 However, evidence indicates that the fallout exposure may have been purposeful.1

#### MARSHALLESE MIGRANTS IN THE UNITED STATES

Marshallese migration to the United States is increasing.<sup>9</sup> According to the US Census Bureau, the Marshallese population in the United States tripled between 2000 and 2010, from an

estimated 6700 to 22 434 persons.9 The exact number of Marshallese individuals living in the United States is difficult to ascertain because COFA migrants may freely come to the United States without a visa or permanent resident card. US Department of Health records, school enrollment records, and the Marshallese Consulate indicate that approximately 40 000 Marshallese people live in the United States.<sup>58,59</sup> A poor economy, limited employment, and inadequate educational opportunities and health care infrastructure in the Republic of the Marshall Islands, as well as the ability to freely enter the United States, motivate many Marshallese persons to migrate to the United States.<sup>2</sup> These factors, combined with the effects of climate change on the low-lying atolls of the Marshall Islands, make it likely that Marshallese migration to the United States will increase in the coming decades.60-63

Currently, the vast majority of Marshallese migrants reside in Hawaii and Arkansas.<sup>9</sup> As compared with the general US population, Marshallese migrants tend to be younger, have lower educational attainment, and have higher rates of poverty. Marshallese often work in food-processing and service industries.<sup>4,9,64</sup>

#### **Health Status**

The limited research on the health of Marshallese persons both in the United States and in the Republic of the Marshall Islands indicates significant health disparities. The prevalence of type 2 diabetes in the Marshallese is among the highest of any population group in the world, with documented prevalence ranging from 25% to 50% for Marshallese adults compared with 8.3% for the US population and 4% worldwide.3,40,41,65-72 In addition, the Marshallese population has disproportionate rates of hepatitis B, tuberculosis, and Hansen's disease.<sup>50,73-79</sup> Marshallese mothers in the United States also have high rates of low-birthweight infants.<sup>80</sup> Marshallese persons often do not seek health care services until a disease reaches a crisis stage.81,82

#### **Limited Health Care Access**

Prior to the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA), commonly referred to as welfare reform, COFA migrants were eligible for federally funded benefits programs, including Medicaid and the Children's Health Insurance Program (CHIP).6 However, PRWORA restricted access to federally funded programs for most legal immigrants, including COFA migrants who were excluded from the category of "qualified immigrants."6,83,84 Although eligibility for federal benefits programs was incrementally restored for other legal immigrants,85 COFA migrants continue to be excluded.

Marshallese persons living in the United States today remain ineligible for federally funded Medicaid and CHIP.<sup>7</sup> COFA migrants are eligible to purchase private health insurance under the Affordable Care Act and are eligible for subsidies based on income but remain ineligible for Medicaid expansion.<sup>86,87</sup> *Medicaid*. Medicaid provides health coverage to millions of low-income residents in the United States.<sup>88</sup> After PRWORA disqualified COFA migrants from Medicaid eligibility, state governments had the discretion to continue Medicaid coverage exclusively with state funds.<sup>7</sup>

When PRWORA was enacted, the number of COFA migrants in Hawaii was small, and Hawaii initially chose to allow COFA migrants to continue to receive Med-QUEST, Hawaii's Medicaid program.<sup>7</sup> In 2009, citing economic hardship, Hawaii announced that COFA migrants would be disenrolled from Med-QUEST and provided a limited health insurance program called Basic Health Hawaii, which offered reduced benefits for medication and hospital stays.<sup>2</sup>

In 2009, COFA residents brought a successful federal class action lawsuit against the state of Hawaii, arguing that the implementation of Basic Health Hawaii violated the COFA residents' rights to due process because it failed to provide adequate notice to residents. A Federal District Court issued a temporary injunction restraining Hawaii's Department of Human Services from implementing the Basic Health Hawaii program. In response, the Department of Human Services held the required public hearings in 2010 and implemented Basic Health Hawaii from July to December 2010. In December 2010, the District Court issued a preliminary injunction enjoining the state of Hawaii from continuing Basic Health Hawaii and restoring Med-QUEST benefits for



COFA residents. Judge Michael Seabright agreed that COFA migrants' exclusion from Med-QUEST was a violation of the equal protection clause of the Fourteenth Amendment to the US Constitution,<sup>2</sup> which prohibits denying "to any person within its jurisdiction the equal protection of the laws." The plaintiffs alleged that the state of Hawaii was discriminating on the basis of alienage and national origin. The state of Hawaii appealed this decision to the US Court of Appeals for the Ninth Circuit.

On April 1, 2014, a 3-judge panel removed the injunction that prevented Hawaii from reducing the health benefits provided to COFA residents.84,89 The decision noted that the PRWORA had made COFA residents ineligible for Medicaid and that Hawaii has no constitutional obligation to fill the gap left by the withdrawal of federal funding. The plaintiffs requested a full panel ("en banc") review from the Circuit Court, but the petition was denied. The plaintiffs appealed to the Supreme Court. The US Supreme Court rejected the plaintiffs' appeal on November 3, 2014. Thus, the Ninth Circuit Court of Appeals decision in favor of the state stands. On the same day, Governor Abercrombie's administration announced that 7400+ adult COFA residents who are not pregnant, aged, blind, or disabled will be removed from Med-QUEST rolls within 120 days.90 As of February 2015, they will be rolled over into the Hawaii Health Insurance Exchange, with premium subsidies from the federal and state governments.

Arkansas does not offer Medicaid or any alternative state-funded health insurance program to COFA migrants. Marshallese persons living in Arkansas have not had access to any publicly funded health care coverage since the implementation of PRWORA in 1996.<sup>5,6</sup>

Children's Health Insurance Program. CHIP, jointly funded by the federal and state governments, provides health coverage for children in families who have incomes too high to qualify for Medicaid but cannot afford private health insurance.88 COFA migrant children became ineligible for CHIP with the passage of PRWORA. However, the 2009 Children's Health Insurance Program Reauthorization Act gave states the authority to extend Medicaid and CHIP benefits to lawfully residing children, including COFA migrants, and provided federal matching funds to offset the cost.<sup>91</sup> Approximately half of the US states have adopted the provisions.

After the passage of PRWORA, Hawaii provided health coverage to COFA children with state funds.<sup>9</sup> Under the Children's Health Insurance Program Reauthorization Act, Hawaii extended CHIP benefits to lawfully residing children, including COFA migrants. The Children's Health Insurance Program Reauthorization Act also increased federal funding, new enrollment, and outreach opportunities, which Hawaii used.92 COFA migrant children in Hawaii were not moved to Basic Health Hawaii in 2010 and continue to be covered by Med-QUEST.

In Arkansas, COFA migrant children are not eligible for ARKids First, the Arkansas CHIP. Permanent residents admitted to the United States through US Citizenship and Immigration Services become eligible for federal programs after 5 years of residency, but Marshallese migrant children do not gain eligibility for ARKids First.<sup>87</sup> In order for Arkansas to extend ARKids First coverage to Marshallese migrant children. the Arkansas state government would need to submit a state plan amendment to the Center on Medicare and Medicaid Services and obtain approval.<sup>91</sup> At present. Arkansas has not submitted such an amendment and has shown no intent to do so. Therefore, Marshallese migrant children residing in Arkansas remain ineligible for CHIP coverage.87

*Affordable Care Act.* The Affordable Care Act expanded health coverage options in the United States by creating marketplaces where consumers can purchase subsidized health plans, offering states the option to expand Medicaid to more residents,<sup>88</sup> and requiring legal US residents to obtain health insurance.

As lawfully present migrants, COFA migrants are required to purchase health insurance in a Qualified Health Plan offered through the Health Insurance Marketplace and are subject to the standard penalties if they do not enroll.<sup>87</sup> They are eligible for advance premium tax credit subsidies and cost-sharing reductions.<sup>87</sup> However, COFA migrants remain ineligible for the Medicaid expansion.

Private health insurance. Many Marshallese persons work in food-processing or service industries,<sup>4</sup> which generally offer limited health insurance benefits. Even when workers have health insurance through employment, the cost of covering multiple family members may be prohibitively expensive, and many workers cannot afford to cover their families.93 In addition, Marshallese persons often live in extended family groups, and a worker may be responsible for relatives not typically covered by an employersponsored health insurance plan.93

#### Summary

The United States has benefited and continues to benefit from its relationships with the Marshallese people and the Republic of the Marshall Islands. The United States has exclusive military control of the region. Marshallese persons join the US military at rates higher than those for US citizens.<sup>94</sup> In addition, Marshallese individuals working in the United States pay all federal, state, and local taxes, including Medicare and Social Security taxes deducted through payroll.<sup>94</sup>

When the COFA was signed in 1986, Marshallese persons were eligible for federally funded health care programs.<sup>7</sup> In 1996, PRWORA excluded COFA migrants from the category of "qualified immigrants" for these programs.<sup>6</sup> Marshallese continue to suffer from the effects of nuclear contamination and high rates of cancer,<sup>42</sup> as well as chronic conditions including obesity, diabetes, and cardiovascular



diseases.<sup>3,41,68,95,96</sup> Current US policies limit the ability of Marshallese persons to access health care services, which excludes them from the benefits of the medical advances gained through Project 4.1 research.

#### RECOMMENDATIONS FOR IMPROVING HEALTH CARE ACCESS

To reduce health disparities and improve health equity, we offer policy recommendations at the federal and state level aimed at improving health care access and reducing health inequalities for Marshallese persons in the United States.

#### **Federal Level**

Restore Medicaid. Since the passage of PRWORA, various federal and state actions have incrementally restored access to Medicaid for most legal immigrants.85 The Balanced Budget Act of 1997 restored Medicaid eligibility for most legal immigrants by clarifying that any individual eligible for Supplemental Security Income benefits was also eligible for Medicaid. However, COFA migrants were left out of this restoration. Restoring Medicaid for COFA migrants is a crucial part of ensuring that all Marshallese persons have access to affordable health care.

Hawaii Senator Mazie Hirono introduced an amendment to the Border Security, Economic Opportunity, and Immigration Modernization Act to restore "Medicaid for citizens of Micronesia, the Marshall Islands and Palau—collectively known as COFA migrants."<sup>97</sup> The amendment passed by a voice vote. The Border Security, Economic Opportunity, and Immigration Modernization Act as amended passed the Senate in June 2013 and was sent to the US House of Representatives.<sup>98</sup> On July 30, 2014, Congresswoman Lucille Roybal-Allard of California introduced the Health Equity and Accountability Act of 2014, which would restore Medicaid benefits for COFA migrants. The Health Equity and Accountability Act has been introduced in 6 consecutive Congresses but is not expected to pass.<sup>99</sup>

Pass Compact Impact Aid. In 2013, Hawaii US Representative Colleen Hanabusa introduced the Compact Impact Aid Act of 2013 (H. R. 1222) to amend the 1985 COFA "to provide for adequate Compact-impact aid to affected States and territories, and for other purposes."<sup>99</sup> Currently, Hawaii, Guam, the Commonwealth of the Northern Mariana Islands, and American Samoa are the only jurisdictions that receive Compact Impact Aid to offset any

> costs incurred by affected jurisdictions as a result of increased demands placed on health, educational, social, or public safety services or infrastructure.<sup>5</sup>

If passed, the Compact Impact Aid Act of 2013 would, for the first time, offer funding to mainland US states to reimburse the cost of public services provided to COFA migrants residing in those states.<sup>93</sup> This is significant because COFA migrants continue to migrate inland to states such as Arkansas.

#### **State Level**

Although Hawaii currently provides CHIP for COFA migrant children, approximately half of US states, including Arkansas, do not. To extend coverage to Marshallese children, Arkansas needs to submit a state plan amendment to the Center on Medicare and Medicaid Services. As of this writing, the state of Arkansas has made no attempt to submit a state plan.

Securing health care coverage for Marshallese migrant children is an important part of improving the overall health of the Marshallese community.

#### CONCLUSIONS

The United States continues to derive significant benefits in its health, welfare, and national security from its relationships with the Republic of the Marshall Islands and the Marshallese people. When COFA was signed in 1986, Marshallese persons were eligible for federally funded health care benefits, and the Marshallese people believed that they would continue to have access to those programs.<sup>100</sup> Exclusion from benefits after PRWORA was perceived by many Marshallese as betraval.<sup>89,100</sup> The Marshallese people argue that the Republic of the Marshall Islands have been "good friends to the US," and they would like the "US to be a good friend" to the Marshallese people in return.<sup>101</sup> For the Marshallese people, the cornerstone of a strong friendship between the nations is the provision of affordable, accessible health care for Marshallese persons living in the United States.<sup>100</sup>

COFA migrants' health care coverage must be addressed at a federal level. The nuclear testing program, COFA, and PRWORA were all policies made at the federal level. It is ultimately the federal government's responsibility to address the inequalities created by these policies. Marshallese persons continue to migrate to the continental United States, and inland states such as Arkansas do not receive any Compact Impact Aid. These states do not have the resources and infrastructure to adequately meet the health needs of the Marshallese people.

The first clause of Article 25 of the Universal Declaration of Human Rights, adopted by the United Nations in 1948 and signed by the United States,<sup>102</sup> reads:

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including . . . medical care.<sup>103</sup>

The extension of health care to COFA migrants would bring them under the rubric of "human."104-Marshallese persons were treated as less than human during nuclear experiments on their islands and in Project 4.1.1,45 By denying Marshallese persons access to federally funded health care programs, the United States continues to treat the Marshallese people as less than human. It is imperative that federal and state health policies be amended so that Marshallese persons and all COFA migrants in the United States are treated as equal and have access to affordable, quality health care.

#### **About the Authors**

Pearl Anna McElfish is a PhD candidate with the University of Arkansas for Medical Sciences Northwest, Fayetteville. Emily



Hallgren is a sociology PhD student at University of Illinois at Chicago. Seiji Yamada is with the Department of Family Medicine and Community Health, John A. Burns School of Medicine, University of Hawaii, Honolulu.

Correspondence should be sent to Pearl Anna McElfish, MS, MBA, PhDc, University of Arkansas for Medical Sciences Northwest, 1125 N College Ave, Fayetteville, AR 72703-1908 (e-mail: pamcelfish@ uams.edu). Reprints can be ordered at http://www.aph.org by clicking the "Reprints" link.

This article was accepted November 4, 2014.

#### Contributors

All the authors wrote and edited the article and approved the final draft.

#### **Acknowledgments**

Funding was provided in part by the University of Arkansas for Medical Sciences' Translational Research Institute through the National Institutes of Health's Center for Translational Science (award UL1TR000039).

The authors thank the Marshallese Community-Based Participatory Research Advisory Board and the Arkansas Advocates for Children and Families.

#### **Human Participant Protection**

No protocol approval was required from the institutional review board, as this research did not involve human participants.

#### References

1. Barker HM. Bravo for the Marshallese: Regaining Control in a Post-Nuclear, Post-Colonial World. 2nd ed. Independence, KY: Cengage Learning; 2013.

2. Shek D, Yamada S. Health care for Micronesians and constitutional rights. *Hawaii Med J.* 2011;70(11, suppl 2):4–8.

3. Ichiho HM, Seremai J, Trinidad R, Paul I, Langidrik J, Aitaoto N. An assessment of non-communicable diseases, diabetes, and related risk factors in the Republic of the Marshall Islands, Kwajelein Atoll, Ebeye Island: a systems perspective. *Hawaii J Med Public Health*. 2013;72(5 suppl 1): 77–86.

4. Jimeno RA. A Profile of the Marshallese Community in Arkansas. Vol 3. Little Rock and Fayetteville: Winthrop Rockefeller Foundation and the University of Arkansas; 2013.

5. Asian and Pacific Islander American Health Forum. Key facts on Medicaid restoration for COFA migrants. 2014. Available at: http://www.apiahf.org/ programs/nhpi-affairs/communitycapacity-building/medicaid-restorationcompact-free-association-mi-0. Accessed March 28, 2014.

6. Asian and Pacific Islander American Health Forum. Medicaid restoration for Compact of Free Association Migrants. 2014. Available at: http://www.apiahf. org/policy-and-advoccacy/policypriorities/health-care-access/medicaidrestoration-compact-free-associati. Accessed April 28, 2014.

7. Geminiani V, Ostrowski DM. Litigation in federal and state courts in Hawaii preserves critical health care for Micronesians. *J Poverty Law Policy*. 2011;45 (1–2):63–66.

8. Holahan J, Weil A, Wiener JM. Federalism and Health Policy. Washington, DC: Urban Institute Press; 2003.

9. Hixson L, Hepler BB, Kim MO. *The Native Hawaiian and Other Pacific Islander Population: 2010.* May 2012. Available at: http://www.census.gov/prod/ cen2010/briefs/c2010br-12.pdf. Accessed March 2, 2014.

10. Cooke S. In Mortal Hands: A Cautionary History of the Nuclear Age. New York, NY: Bloomsbury USA; 2009.

11. Pollock NJ. Health transitions, fast and nasty: the case of Marshallese exposure to nuclear radiation. *Pac Health Dialog.* 2002;9(2):275–282.

12. Guyer RL. Radioactivity and rights: clashes at Bikini Atoll. *Am J Public Health.* 2001;91(9):1371–1376.

13. Dobyns BM, Hyrmer BA. The surgical management of benign and malignant thyroid neoplasms in Marshall Islanders exposed to hydrogen bomb fallout. *World J Surg.* 1992;16(1):126–139.

14. Conard RA, Dobyns BM, Sutow WW. Thyroid neoplasia as late effect of exposure to radioactive iodine in fallout. *JAMA*. 1970;214(2):316–324.

15. Cronkite EP, Conard RA, Bond VP. Historical events associated with fallout from Bravo Shot–Operation Castle and 25 Y of medical findings. *Health Phys.* 1997;73(1):176–186.

16. Eisenbud M. Monitoring distant fallout: the role of the Atomic Energy Commission Health and Safety Laboratory during the Pacific tests, with special attention to the events following BRAVO. *Health Phys.* 1997;73(1):21–27.

17. Hamilton TE, van Belle G, LoGerfo JP. Thyroid neoplasia in Marshall Islanders exposed to nuclear fallout. *JAMA*. 1987;258(5):629–635.

 Howard JE, Vaswani A, Heotis P. Thyroid disease among the Rongelap and Utirik population—an update. *Health Phys.* 1997;73(1):190–198.

19. Lessard ET, Miltenberger RP, Cohn SH, Musolino SV, Conard RA. Protracted exposure to fallout: the Rongelap and Utirik experience. *Health Phys.* 1984;46 (3):511–527.

 Robison WL, Bogen KT, Conrado CL. An updated dose assessment for resettlement options at Bikini Atoll-a US. nuclear test site. *Health Phys.* 1997;73(1):100-114.

21. Robison WL, Sun C. The use of comparative <sup>137</sup>Cs body burden estimates from environmental data/models and whole body counting to evaluate diet models for the ingestion pathway. *Health Phys.* 1997;73(1):152–166.

22. Sun LC, Clinton JH, Kaplan E, Meinhold CB. <sup>137</sup>Cs exposure in the Marshallese populations: an assessment based on whole-body counting measurements (1989-1994). *Health Phys.* 1997;73(1):86–99.

23. Takahashi T, Schoemaker MJ, Trott KR, et al. The relationship of thyroid cancer with radiation exposure from nuclear weapon testing in the Marshall Islands. *J Epidemiol*. 2003;13(2):99–107.

24. Takahashi T, Trott KR, Fujimori K, et al. An investigation into the prevalence of thyroid disease on Kwajalein Atoll, Marshall Islands. *Health Phys.* 1997;73 (1):199–213.

25. Walker RB, Gessel SP, Held EE. The ecosystem study on Rongelap Atoll. *Health Phys.* 1997;73(1):223–233.

26. Conard RA, Hicking A. Medical findings in Marshallese people exposed to fallout radiation: results from a ten-year study. *JAMA*. 1965;192:457–460.

27. Conard RA, Huggins CE, Cannon B, Lowrey A, Richards JB. Medical survey of Marshallese two years after exposure to fall-out radiation. *J Am Med Assoc*. 1957;164(11):1192–1197.

28. Conard RA, Rall JE, Sutow WW. Thyroid nodules as a late sequela of radioactive fallout, in a Marshall Island population exposed in 1954. *N Engl J Med.* 1966;274(25):1391–1399. 29. Cronkite EP, Bond VP, Conard RA. Medical effects of exposure of human beings to fallout radiation from a thermonuclear explosion. *Stem Cells*. 1995;13(suppl 1):49–57.

30. Bogen KT, Conrado CL, Robison WL. Uncertainty and variability in updated estimates of potential dose and risk at a U.S. nuclear test site–Bikini Atoll. *Health Phys.* 1997;73(1):115–126.

31. Gilbert ES, Land CE, Simon SL. Health effects from fallout. *Health Phys.* 2002;82(5):726–735.

32. Niedenthal J. A history of the people of Bikini following nuclear weapons testing in the Marshall Islands: with recollections and views of elders of Bikini Atoll. *Health Phys.* 1997;73(1):28–36.

33. Noshkin VE, Robison WL, Wong KM, Brunk JL, Eagle RJ, Jones HE. Past and present levels of some radionuclides in fish from Bikini and Enewetak Atolls. *Health Phys.* 1997;73(1):49–65.

34. Simon SL. A brief history of people and events related to atomic weapons testing in the Marshall Islands. *Health Phys.* 1997;73(1):5–20.

35. Simon SL, Robison WL, Thorne MC, et al. A comparison of independently conducted dose assessments to determine compliance and resettlement options for the people of Rongelap Atoll. *Health Phys.* 1997;73(1):133–151.

36. Shinn JH, Homan DN, Robison WL. Resuspension studies in the Marshall Islands. *Health Phys.* 1997;73(1):248–257.

37. Noshkin VE, Robison WL. Assessment of a radioactive waste disposal site at Enewetak Atoll. *Health Phys.* 1997;73(1):234–247.

38. Cohn SH, Rinehart RW, Gong JK, et al. Nature and Extent of Internal Radioactive Contamination of Human Beings, Plants, and Animals Exposed to Fallout. Bethesda, MD; San Francisco, CA: Naval Medical Research Institute and US Naval Radiological Defense Laboratory; 1955. WT-036.

39. Gittelsohn J, Haberle H, Vastine AE, Dyckman W, Palafox NA. Macro- and microlevel processes affect food choice and nutritional status in the Republic of the Marshall Islands. *J Nutr.* 2003;133(1):310S-313S.

40. Yamada S, Palafox N. On the biopsychosocial model: the example of political economic causes of diabetes in the Marshall Islands. *Fam Med.* 2001;33(9): 702–704.

41. Yamada S, Dodd A, Soe T, Chen T, Bauman K. Diabetes mellitus prevalence in out-patient Marshallese adults on



Ebeye Island, Republic of the Marshall Islands. *Hawaii Med J.* 2004;63(2): 45–51.

42. Kroon E, Reddy R, Gunawardane K, et al. Cancer in the Republic of the Marshall Islands. *Pac Health Dialog.* 2004;11(2):70–77.

43. Takahashi T, Fujimori K, Simon SL, Bechtner G, Edwards R, Trott KR. Thyroid nodules, thyroid function and dietary iodine in the Marshall Islands. *Int J Epidemiol.* 1999;28(4):742–749.

44. Sutow WW, Conard RA, Griffith KM. Growth status of children exposed to fallout radiation on Marshall Islands. *Pediatrics*. 1965;36(5):721–731.

45. Cronkite EP, Bond VP, Conard RA, et al. Response of human beings accidentally exposed to significant fall-out radiation. *J Am Med Assoc.* 1955;159(5): 430–434.

46. Cronkite EP, Bond VP, Browning LE, et al. Study of Response of Human Beings Accidentally Exposed to Significant Fallout Radiation. Bethesda, MD, and San Francisco, CA: Naval Medical Research Institute and US Naval Radiological Defense Laboratory; October 1954.

47. Conard RA. Fallout: The Experiences of a Medical Team in the Care of a Marshallese Population Accidently Exposed to Fallout Radiation. Upton, NY: Brookhaven National Laboratory; 1992.

48. Dobyns BM, Hyrmer BA. The surgical management of benign and malignant thyroid neoplasms in Marshall Islanders exposed to hydrogen bomb fallout. *World J Surg.* 1992;16(1):126–139; discussion 139–140.

49. Bond VP, Conard RA, Robertson JS, Weden EA. *Medical Examination of Rongelap People Six Months After Exposure to Fallout.* Bethesda, MD, and San Francisco, CA: Naval Medical Research Institute and US Naval Radiological Defense Laboratory; April 1955.

50. Adams WH, Fields HA, Engle JR, Hadler SC. Serologic markers for hepatitis B among Marshallese accidentally exposed to fallout radiation in 1954. *Radiat Res.* 1986;108(1):74–79.

51. Adams W, Heotis P, Scott W. Medical Status of Marshallese Accidentally Exposed to 1954 Bravo Fallout Radiation: January 1985 through December 1987. Upton, NY: Brookhaven National Laboratory; 1989.

52. Sondhaus CA, Bond VP. Physical Factors and Dosimetry in the Marshall

Island Radiation Exposures. Ft. Belvoir, VA: US Naval Radiological Defense Laboratory; December 1955.

53. Sharp R, Chapman WH. Exposure of Marshall Islanders and American Military Personnel to Fallout Silver Spring, MD: Naval Medical Research Institute; March 1957.

54. Martin EJ, Rowland RH. *CASTLE Series, 1954.* Washington, DC: Defense Nuclear Agency; 1982. Report DNA 6035F.

55. Simon SL, Graham JC. Findings of the first comprehensive radiological monitoring program of the Republic of the Marshall Islands. *Health Phys.* 1997;73 (1):66–85.

56. Robison WL, Noshkin VE, Conrado CL, et al. The Northern Marshall Islands Radiological Survey: data and dose assessments. *Health Phys.* 1997;73(1): 37–48.

57. Lisco H, Conard RA. Chromosome studies on Marshall Islanders exposed to fallout radiation. *Science*. 1967;157 (3787):445–447.

58. McElfish P. Interview With Carmen Chonggum. Springdale: Arkansas Marshallese Consulate; 2013.

59. Springdale School Lunch Program Data. 2014. Available at: https://sdale. org/sps/state-required-information. Accessed March 2, 2014.

60. Reuveny R. Climate change-induced migration and violent conflict. *Polit Geogr.* 2007;26(6):656–673.

61. Farbotko C, Lazrus H. The first climate refugees? Contesting global narratives of climate change in Tuvalu. *Glob Environ Change*. 2012;22(2):382–390.

 Barnett J. Adapting to climate change in Pacific Island countries: the problem of uncertainty. *World Dev.* 2001;29 (6):977–993.

63. Ahlgren I, Yamada S, Wong A. Rising oceans, climate change, food aid, and human rights in the Marshall Islands. *Health Hum Rights.* 2014;16(2):E69–81.

64. US Census Bureau. 2010 Census Interactive Population Search. 2010. Available at: http://www.census.gov/ 2010census/popmap/ipmtext.php. Accessed May 15, 2013.

65. Wu S-FV, Courtney M, Edwards H, McDowell J, Shortridge-Baggett LM, Chang P-J. Self-efficacy, outcome expectations and self-care behaviour in people with type 2 diabetes in Taiwan. *J Clin Nurs*. 2007;16(11C):250–257. 66. Office of Minority Health. Diabetes and Native Hawaiians/Pacific Islanders. 2012. Available at: http://minorityhealth.hhs. gov/omh/browse.aspx?lvl=4&lvlid=78. Accessed May 20, 2014.

67. Reddy R, Trinidad R, Seremai J, Nasa J. Marshallese Diabetic Health Improvement Pilot Project in Ebeye. *Calif J Health Promot.* 2009;7(Special Issue: Obesity Prevention):125–130.

68. Reddy R, Shehata C, Smith G, Maskarinec GG. Characteristics of Marshallese with type 2 diabetes on Oahu: a pilot study to implement a communitybased diabetic health improvement project. *Calif J Health Promot.* 2005;3(4):36–47.

69. International Diabetes Federation. *IDF Diabetes Atlas.* 5th ed. Brussels, Belguim: International Diabetes Federation; 2011. Available at: http://www.idf.org/ diabetesatlas. Accessed April 11, 2013.

70. Hsu WC, Boyko EJ, Fujimoto WY, et al. Pathophysiologic differences among Asians, native Hawaiians, and other Pacific Islanders and treatment implications. *Diabetes Care*. 2012;35(5):1189–1198.

71. Cortes LM, Gittelsohn J, Alfred J, Palafox NA. Formative research to inform intervention development for diabetes prevention in the Republic of the Marshall Islands. *Health Educ Behav.* 2001;28(6):696–715.

72. Centers for Disease Control and Prevention. *National Diabetes Fact Sheet*, 2011. Atlanta, GA: Centers for Disease Control and Prevention; 2011.

73. World Health Organization. *Marshall Islands*. Geneva, Switzerland: World Health Organization; 2011. Available at: http://www.who.int/countries/mhl/en. Accessed March 2, 2014.

74. World Health Organization. *Global Tuberculosis Report 2013*. Geneva, Switzerland: World Health Organization; 2013.

75. World Health Organization. Global Policy Report on the Prevention and Control of Viral Hepatitis in WHO Member States. Geneva, Switzerland: World Health Organization; July 2013.

76. Wong DC, Purcell RH, Rosen L. Prevalence of antibody to hepatitis A and hepatitis B viruses in selected populations of the South Pacific. *Am J Epidemiol.* 1979;110(3):227–236.

77. Woodall P, Scollard D, Rajan L. Hansen disease among Micronesian and Marshallese persons living in the United States. *Emerg Infect Dis.* 2011;17 (7):1202–1208. 78. Fischer G, Wang S, Ahring S, et al. An investigation of perinatal hepatitis B virus infections among a high risk population: the delivery hospital as a safety net. *Pediatr Infect Dis J.* 2009;28(7):593–597.

79. Brindle RJ, Eglin RP, Parsons AJ, Hill AV, Selkon JB. HTLV-1, HIV-1, hepatitis B and hepatitis delta in the Pacific and South-East Asia: a serological survey. *Epidemiol Infect.* 1988;100(1):153–156.

80. Schempf AH, Mendola P, Hamilton BE, Hayes DK, Makuc DM. Perinatal outcomes for Asian, Native Hawaiian, and Other Pacific Islander mothers of single and multiple race/ethnicity: California and Hawaii, 2003–2005. *Am J Public Health*. 2010;100(5):877–887.

81. Choi JY. Seeking health care: Marshallese migrants in Hawai'i. *Ethn Health.* 2008;13(1):73–92.

82. Perez Williams D, Hampton A. Barriers to health services perceived by Marshallese immigrants. *J Immigrant Health*. 2005;7(4):317–326.

83. US Government Printing Office. 104th Cong, Pub L No. 193. Available at: http://www.gpo.gov/fdsys/pkg/PLAW-104publ193/html/PLAW-104publ193. htm. Accessed April 13, 2014.

84. *Korab v Fink*, case no. 11–15132 (9th Cir 2014).

85. Singer A. Welfare reform and immigrants: a policy review. 2014. Available at: http://www.brookings.edu/~/media/ research/files/reports/2004/5/ demographics%20singer/200405\_ singer.pdf. Accessed August 19, 2014.

86. National Immigration Law Center. Immigrants and the Affordable Care Act (ACA). Los Angeles, CA: January 2014. Available at: http://www.nilc.org/ immigrantshcr.html. Accessed March 2, 2014.

87. Kellams L. Marshallese Families and the Affordable Care Act. Springdale: Arkansas Advocates for Children & Families; 2013.

88. Medicaid.gov Web site. Available at: http://www.medicaid.gov. Accessed August 19, 2014.

89. Compact of Free Association Community Advocacy Network. Citizens of Oceania: COFACAN statement and call to action. April 16, 2014. Available at: http://www.healthypacific.org/1/post/ 2014/04/citizens-of-oceania-cofacanstatement-and-call-to-action.html? fb\_action\_ids=10100243451727714& fb\_action\_types=weeblyapp%3Ashare. Accessed March 2, 2014.



90. State of Hawaii Department of Human Services. US Supreme Court decision allows reduction of healthcare coverage to noncitizens – state will continue certain benefits. November 3, 2014. Available at: http://humanservices.hawaii.gov/blog/ u-s-supreme-court-decision-allowsreduction-of-healthcare-coverage-tononcitizens-state-will-continue-certainbenefits. Accessed November 6, 2014.

91. Kellams L. Covering Lawfully Residing Children: A Prescription for Marshallese Child Health in Arkansas. Little Rock: Arkansas Advocates for Children and Families; 2013.

92. National Academy for State Health Policy. *Havaii CHIP Fact Sheet*. Washington, DC: 2012. Available at: http://nashp.org/ sites/default/files/CHIP/2012/NASHP-2012-Hawaii-CHIP-Fact-Sheetpdf?q=files/ CHIP/2012/NASHP-2012-Hawaii-CHIP-Fact-Sheetpdf. Accessed March 2, 2014.

93. Duke MR. Health for the Marshallese. Arkansas Democrat-Gazette. June 23, 2013: 69.

94. Hawai'i Appleseed Center for Law and Economic Justice. Broken Promises, Shattered Lives: The Case for Justice for Micronesians in Hawai'i. Honolulu: Hawai'i Appleseed Center for Law and Economic Justice; 2011.

95. Minegishi M, Fujimori K, Nakajima N, et al. Diabetes mellitus and obesity among participants receiving screening for cancer in the Republic of the Marshall Islands. *J Int Health*. 2007;22(3):133–141.

96. Claborn M, Seaton VS, Scott WT. The "ABCDs" of interprofessional screenings: aspirin therapy, blood pressure, cholesterol and diabetes. *Am J Pharm Educ.* 2013;77:109.

97. Immigration Law Center of Minnesota. Senate Judiciary Committee passes S. 744. 2013. Available at: http://www.ilcm.org/news.html?start=20. Accessed March 28, 2014.

98. Immigration Policy Center. A Guide to S.744: Understanding the 2013 Senate Immigration Bill July 10, 2013. Available at: http://www.immigrationpolicy.org/ special-reports/guide-s744-understanding-2013-senate-immigration-bill. Accessed March 2, 2014.

99. Text of the Compact-Impact Aid Act of 2013. 2013. Available at: https:// www.govtrack.us/congress/bills/113/ hr1222/text. Accessed March 28, 2014.

100. McElfish P. University of Arkansas for Medical Sciences-Northwest Focus Groups With Marshallese Community, March 2014. Springdale: University of Arkansas for Medical Sciences-Northwest; 2014.

101. His Excellency Senator Kenneth Kedi. Nuclear Remembrance Day 2014: Reflect, Honor, Educate. Little Rock, AR: Clinton Presidential Library; 2014.

102. Chronicle of Human Rights in the US. 2014. Available at: http://www. humanrights.gov/references/chronologyof-human-rights-in-the-us.html. Accessed March 2, 2014.

103. United Nations. *The Universal Declaration of Human Rights*. 1948. Available at: http://www.un.org/en/documents/udhr. Accessed July 18, 2011.

104. Farmer P. Pathologies of Power. Berkeley: University of California Press; 2003.

## Veteran Suicide: A Public Health Imperative

Edited By Robert M. Bossarte, PhD



*Veteran Suicide: A Public Health Imperative* educates readers on the critical issue of veteran suicide that has become a national imperative. Eighteen veterans kill themselves daily. An average of one active-duty GI commits suicide every 1.1 days. More GIs deployed to Iraq and Afghanistan will die from suicide than from combat. These troubling facts are undeniable.

Published with assistance from the Veterans Administration, this collection of papers offers peer reviewed research from the leading experts from public health, clinical, and scientific communities.

Also available from APHA Press: Post-Traumatic Stress Disorder and Chronic Health Conditions purchase this title together with Veteran Suicide and save 10%!



# **ORDER TODAY!**

2013, 522 pp., soft cover ISBN 978-087553-211-0 ORDER ONLINE: www.aphabookstore.org

E-MAIL: APHA@PBD.COM TEL: 888-320-APHA FAX: 888-361-APHA

Copyright of American Journal of Public Health is the property of American Public Health Association and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.