

3. Public Responsibility in Medicine and Research. RE: Docket HHS-OPHS-2013-0004, Notice of a Department of Health and Human Services Public Meeting and Request for Comments on Matters Related to the Protection of Human Subjects and Research Studying Standard of Care Interventions. August 1, 2013 ([https://www.primr.org/uploadedFiles/Main/Knowledge\\_Center/Policy\\_Positions/PRIMR\\_OHRPResponse\\_ResearchonStandardofCare.pdf](https://www.primr.org/uploadedFiles/Main/Knowledge_Center/Policy_Positions/PRIMR_OHRPResponse_ResearchonStandardofCare.pdf)).

4. Capron AM. The real problem is consent for treatment, not consent for research. *Am J Bioeth* 2013;13:27-9.

5. Federal Policy for the Protection of Human Subjects, Notice of Proposed Rulemaking, 80 Federal Register 53931. September 8, 2015 (<http://www.gpo.gov/fdsys/pkg/FR-2015-09-08/pdf/2015-21756.pdf>).

DOI: 10.1056/NEJMc1514250

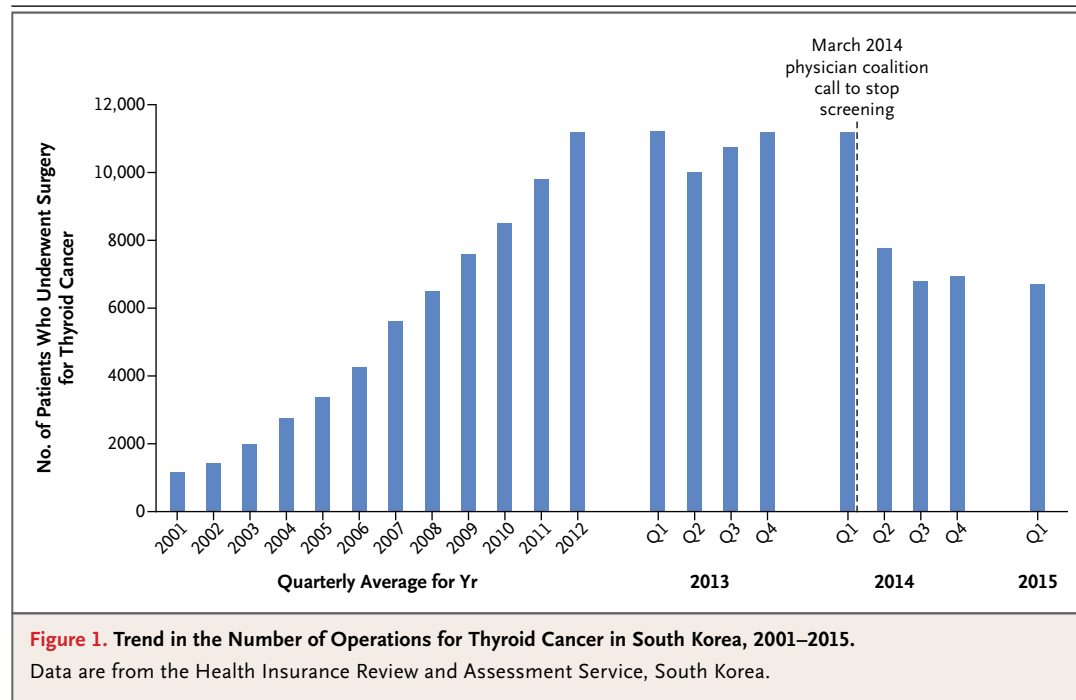
## South Korea's Thyroid-Cancer “Epidemic” — Turning the Tide

**TO THE EDITOR:** In 2014, we reported on the rate of thyroid-cancer diagnoses in South Korea that was 15 times as high in 2011 as the rate in 1993.<sup>1</sup> This increase resulted when fee-for-service providers added thyroid screening with ultrasonography to other cancer-screening tests paid for by the government. Here, we report on an increased awareness of overdiagnosis of thyroid cancer among South Koreans and the effect of this awareness on the number of surgical operations for thyroid cancer.

In March 2014, eight physicians from South Korea formed the Physician Coalition for Prevention of Overdiagnosis of Thyroid Cancer and wrote an open letter to the public highlighting the extraordinarily high incidence of thyroid cancer in South Korea and proposing that screening with ultrasonography be discouraged. Broadcast-

ers ran hour-long investigative reports on television, and major newspapers ran headlines such as “What Caused Jump in Thyroid Cancer Cases?”<sup>2</sup>

Subsequently, there has been a marked decrease in thyroid operations in South Korea after a decade of explosive growth. Whereas more than 43,000 operations for thyroid cancer were performed from the second quarter of 2013 through the first quarter of 2014, approximately 28,000 operations were performed from the second quarter of 2014 through the first quarter of 2015 — a 35% reduction (Fig. 1). Preliminary estimates from insurance claims suggest a 30% reduction in the incidence of thyroid cancer (the lag time in the availability of incidence data from the Korean Central Cancer Registry is 2 to 3 years). Thus, the decrease in the number of surgical operations was not primarily the result



of more conservative surgical practice (e.g., opting for active surveillance instead); rather, it resulted from less screening — and less diagnosis.

Of course, it is possible that less diagnosis and fewer surgical operations may ultimately mean more deaths from thyroid cancer in Korea. We consider that extraordinarily unlikely for two reasons: the dramatic increase in diagnosis and surgery had no effect on lowering thyroid-cancer mortality; and the additional diagnoses from screening were all papillary thyroid cancer — a histologic finding that is so prevalent in the general population that it is better considered a normal variant than a deadly disease.

There are indications that the changes mainly reflect patients' choices, not physicians' recommendations. Thyroid-cancer screening and treatment have become big business in South Korea. Over the past decade, hospitals have expanded thyroid clinics, hiring surgeons and fueling an industry of robot-assisted thyroid surgery. The Korean Thyroid Association, a professional society of endocrinologists and thyroid surgeons, expressed a strong negative reaction to the concerns expressed by the physician coalition, saying that screening and treatment should not be banned because they are "basic human rights."<sup>3</sup>

Our findings suggest that a small group of physicians can change the direction of medical care through public discourse. Whether this course correction will continue or be reversed, however, remains to be seen. The incidence of thyroid cancer in South Korea is still extraordinarily high, and the challenges are substantial. Because it is more intuitive and appealing, the case for early detection is much easier to make than is the case against it. Nonetheless, there is some reason for optimism: the Korean Guideline for Thyroid Cancer Screening, which was developed by the Korean Committee for National Cancer Screening Guidelines in April, concluded that "thyroid ultrasonography is not routinely recommended for healthy subjects."<sup>4</sup> We hope this example will encourage other doctors to find their voice when medical trends run counter to their patients' interests.

Hyeong Sik Ahn, M.D., Ph.D.

Korea University  
Seoul, South Korea  
ahnhs@korea.ac.kr

H. Gilbert Welch, M.D., M.P.H.

Dartmouth Institute for Health Policy and Clinical Practice  
Lebanon, NH

Disclosure forms provided by the authors are available with the full text of this letter at [NEJM.org](http://NEJM.org).

1. Ahn HS, Kim HJ, Welch HG. Korea's thyroid-cancer "epidemic" — screening and overdiagnosis. *N Engl J Med* 2014;371:1765-7.
2. What caused jump in thyroid cancer cases? *The Korea Times*. March 27, 2014 ([http://www.koreatimes.co.kr/www/news/culture/2014/03/319\\_154183.html](http://www.koreatimes.co.kr/www/news/culture/2014/03/319_154183.html)).
3. Early detection and treatment of cancer is patient's own right. *SEGYE ILBO*. April 6, 2014 (<http://www.segye.com/content/html/2014/04/06/20140406002459.html>). (In Korean.)
4. Yi KH, Kim SY, Kim DH, et al. The Korean guideline for thyroid cancer screening. *J Korean Med Assoc* 2015;58:302-12. (In Korean.)

DOI: 10.1056/NEJMc1507622

Correspondence Copyright © 2015 Massachusetts Medical Society.

## CORRECTION

Ischemic Optic Neuropathies (June 18, 2015;372:2428-36). Figure 1 (page 2430), Figure 4 (page 2434), and the video have been modified to more accurately represent the blood supply to the optic nerve. The article is correct at [NEJM.org](http://NEJM.org).

### INSTRUCTIONS FOR LETTERS TO THE EDITOR

Letters to the Editor are considered for publication, subject to editing and abridgment, provided they do not contain material that has been submitted or published elsewhere. Please note the following:

- Letters in reference to a *Journal* article must not exceed 175 words (excluding references) and must be received within 3 weeks after publication of the article.
- Letters not related to a *Journal* article must not exceed 400 words.
- A letter can have no more than five references and one figure or table.
- A letter can be signed by no more than three authors.
- Financial associations or other possible conflicts of interest must be disclosed. Disclosures will be published with the letters. (For authors of *Journal* articles who are responding to letters, we will only publish new relevant relationships that have developed since publication of the article.)
- Include your full mailing address, telephone number, fax number, and e-mail address with your letter.
- All letters must be submitted at [authors.NEJM.org](http://authors.NEJM.org).

Letters that do not adhere to these instructions will not be considered. We will notify you when we have made a decision about possible publication. Letters regarding a recent *Journal* article may be shared with the authors of that article. We are unable to provide prepublication proofs. Submission of a letter constitutes permission for the Massachusetts Medical Society, its licensees, and its assignees to use it in the *Journal's* various print and electronic publications and in collections, revisions, and any other form or medium.

### THE JOURNAL'S WEB AND E-MAIL ADDRESSES

To submit a letter to the Editor: [authors.NEJM.org](http://authors.NEJM.org)  
For information about the status of a submitted manuscript:  
[authors.NEJM.org](http://authors.NEJM.org)  
To submit a meeting notice: [meetingnotices@NEJM.org](mailto:meetingnotices@NEJM.org)  
The *Journal's* web pages: [NEJM.org](http://NEJM.org)