English Version

Health Literacy Workshop

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This workshop was based on Harvard's Health Literacy Studies workshop tools.

Rudd, RE (2010) Assessing Health Materials: Eliminating Barriers – Increasing Access. www.hsph.harvard.edu/healthliteracy

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Fukushima nuclear accident

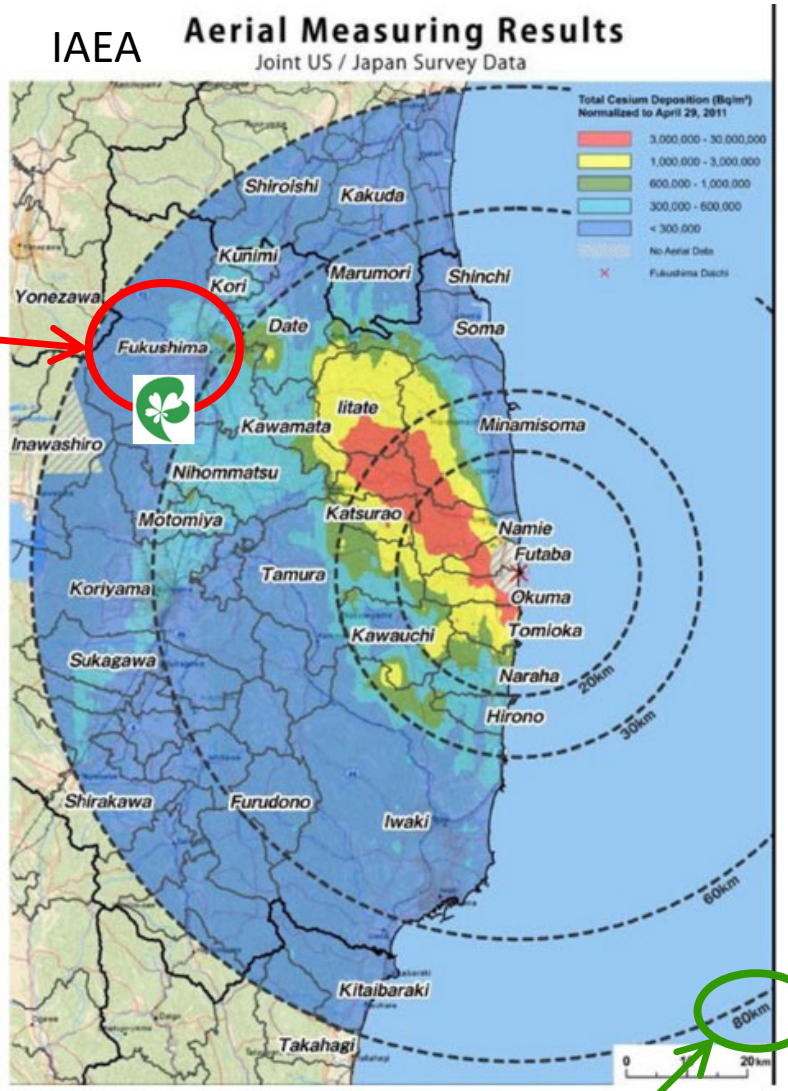
Fukushima City

15% decline in under 5-yo pop. in 2 years

Depression and decline in maternal confidence among Fukushima mothers

BMC Psychiatry. 2015; 15: 59.

J Commun Healthc. 2014; 7: 106-116.



50 miles: US Recommended Evacuation Zone

Fear of unknown health effects of radiation contamination due to confusing and often contradicting health risk messages with difficult scientific data

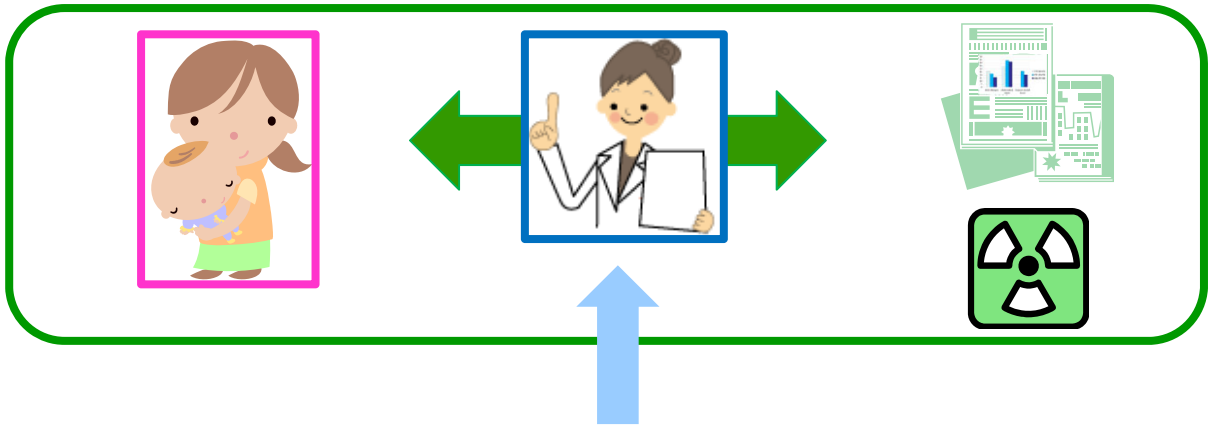
Picture: Leaflets about radiation placed in the lobby of a health center in Fukushima City.

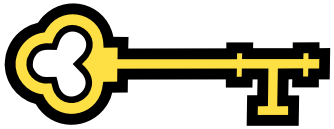
Fukushima City Child health checkup data	% of mothers with depressive symptoms 2012 18 Ms (N=274)	 2014 42Ms (N=468)
Concerned about differences in risk perception about radiation among family members		
No	**8%**	**7%**
Yes	**20%**	**18%**

2012 p=0.02, 2014 p<0.01 (Chi-square test)
Two-item depression screen was used.

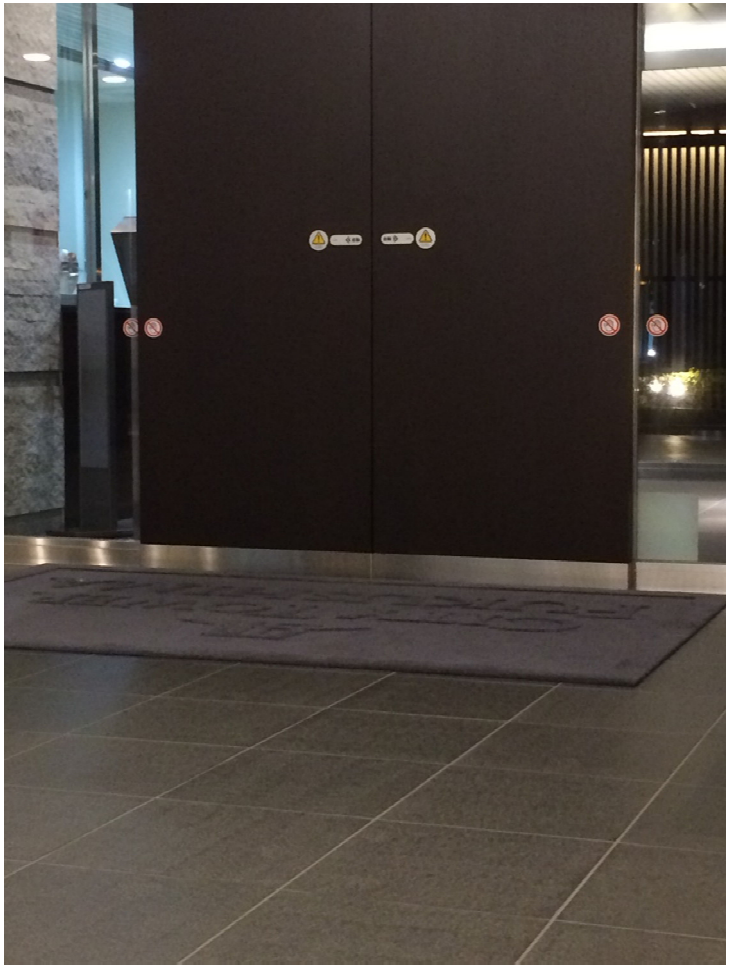
Journal of Communication in Healthcare 2014; 7: 106-116.

Community workers bridge science and community





Training on Health Literacy



Health literacy

- "The cognitive and social skills which determine the motivation and ability of individuals to gain access to understand and use information in ways which promote and maintain good health"

WHO, 1998

Rima E Rudd's diagram (revised)
http://www.hsph.harvard.edu/healthliteracy/overview/

Numeracy

- "Health numeracy is the degree to which individuals have the capacity to access, process, interpret, communicate, and act on numerical, quantitative, graphical, biostatistical, and probabilistic health information needed to make effective health decisions."

  ← From Healthy People 2010

(Golbeck, 2005)

Health literacy training

Table 2 Content of the health literacy training program in Fukushima City

First session	Second session	Follow-up survey
1. Ice-breaking activity 2. Lecture • General background of health literacy • Instructions to use material assessment tools 3. Exercise • Assessment of an assigned written health material 4. Training evaluation 5. Homework • Assessment of materials that participants themselves developed	1. Review quiz 2. Lecture Techniques to improve; • Text • Graphics • Risk presentation 3. Exercise • Revision of their own materials that they had assessed as homework 4. Training evaluation 5. Homework • Apply learned knowledge and skills in practice	1. Review of one-month application 2. Training evaluation 3. Distribute additional information leaflet about tips to apply health literacy in practice

- Goto A, et al. Japan Medical Association Journal. 2014; 57: 146-53.
- Rudd RE. Assessing health materials: Eliminating barriers – increasing access. 2010. http://www.hsph.harvard.edu/healthliteracy/


課題の成果発表会
1．何を評価したか
2．どのツールを使って評価したか
3．主な結果、発見

Health literacy level

- Three levels

(Nutbeam)

- Universal precaution

‘‘How confident are you filling out forms by yourself?’’

N=1040, mean age 57 yo

15% in total (10% among university graduates) are not confident.

(Tokuda H, et al. Patient Educ Couns. 2009;75(3):411-7.)

Assessing accessibility

- Overall assessment of written materials:
  CDC's CCI (← numbers & risks)
  https://www.cdc.gov/ccindex/index.html
  SAM (← layout)
  https://www.hsph.harvard.edu/healthliteracy/practice/innovative-actions/
- Communication: Marker method

(Method to ask readers to mark difficult words and phrases.)

Improving accessibility

- Text

  Lowering grade level

    Grade 5 (elementary school)

  Usage of topic sentences

    Main message should be on the top

  Paraphrasing professional terms by using plain language

    Check “population or high risk approach?”

- Numbers

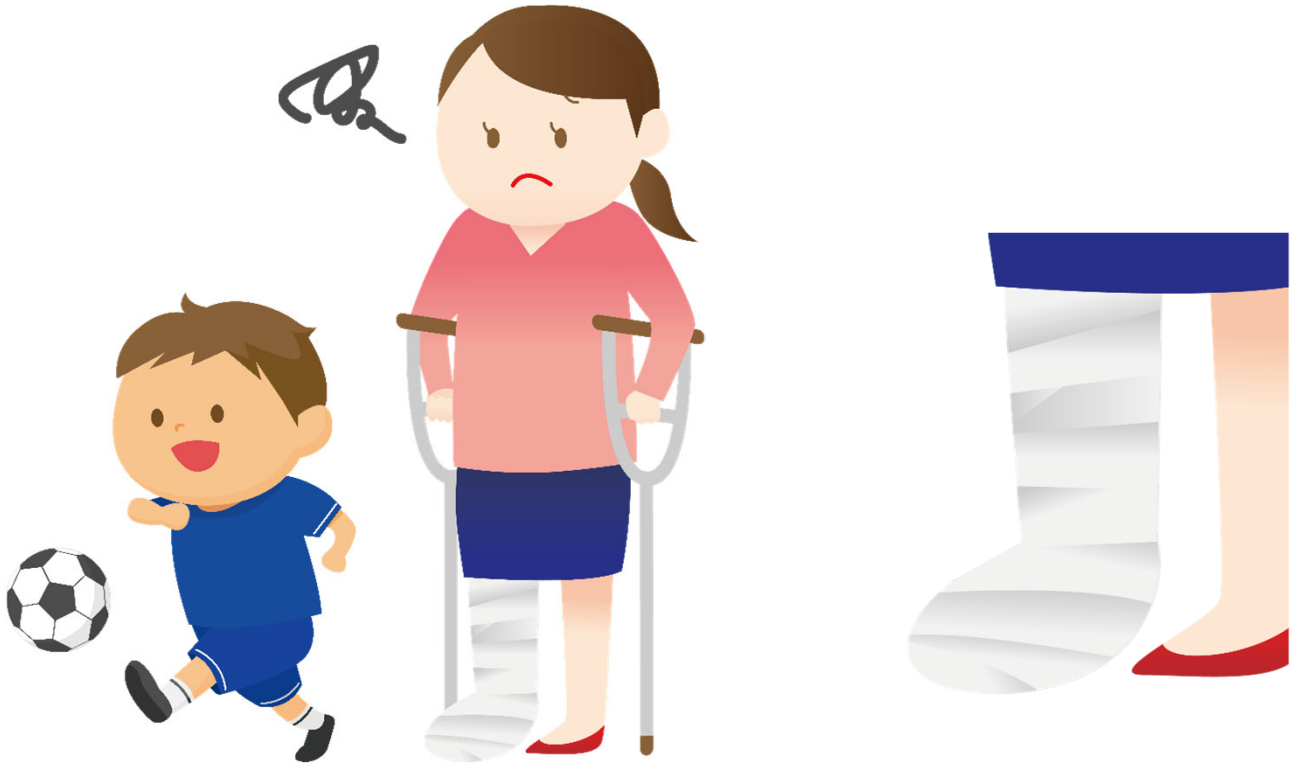
1. Reading numbers, counting, telling time
2. Arithmetic operations
3. Estimation of size, trend
4. Frequency
5. Percentage
6. Mathematical concepts to be applied
7. Reading tables
8. Reading graphs
9. Reading maps
10. Estimation of error, uncertainty, variability
11. Relative versus absolute
12. Risk (cumulative, relative, conditional)

(Apter AJ, et al. J Gen Intern Med. 2008;23:2117-24.)

- Pictures

  Match text and pictures

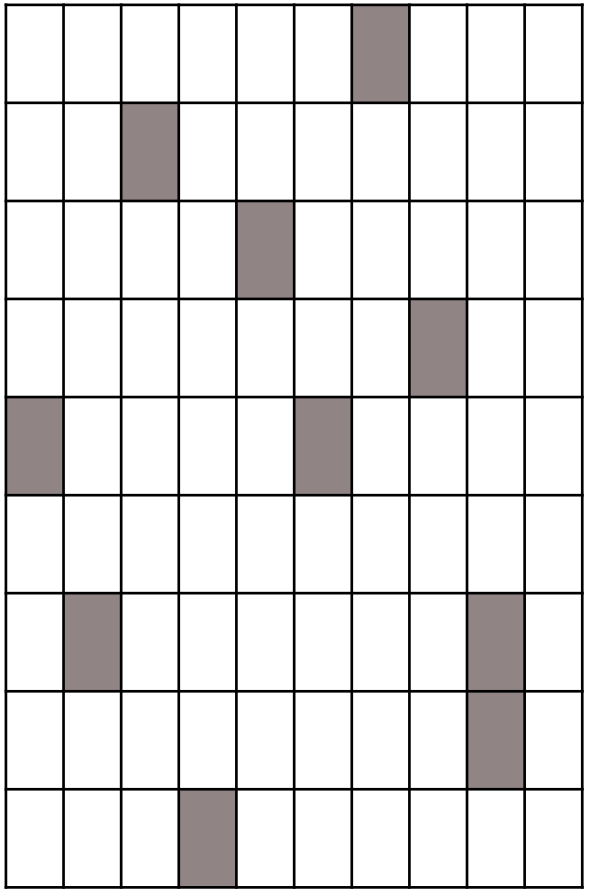
  Show the whole context



(Houts PS, et al. Patients Education and Counseling. 2006; 61: 173-190.)

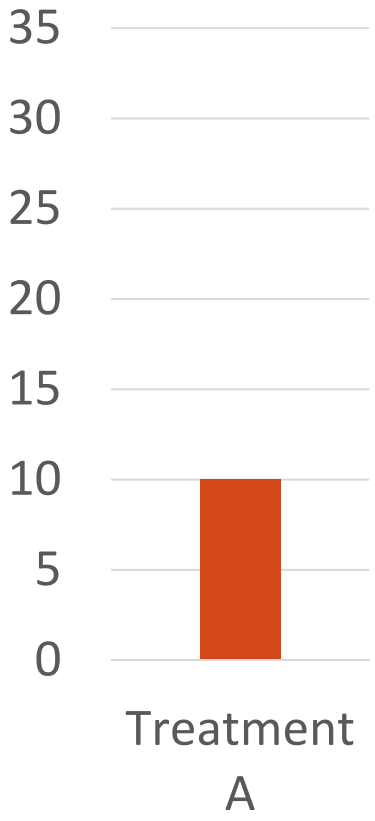
- Graphs

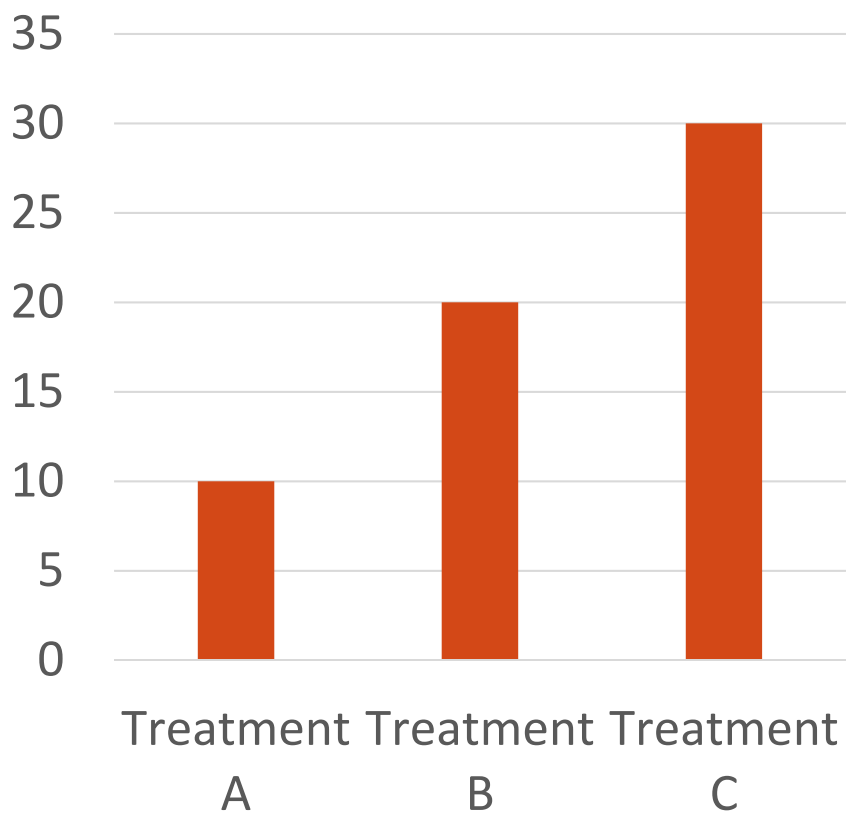
  Pictogram e.g. 10%



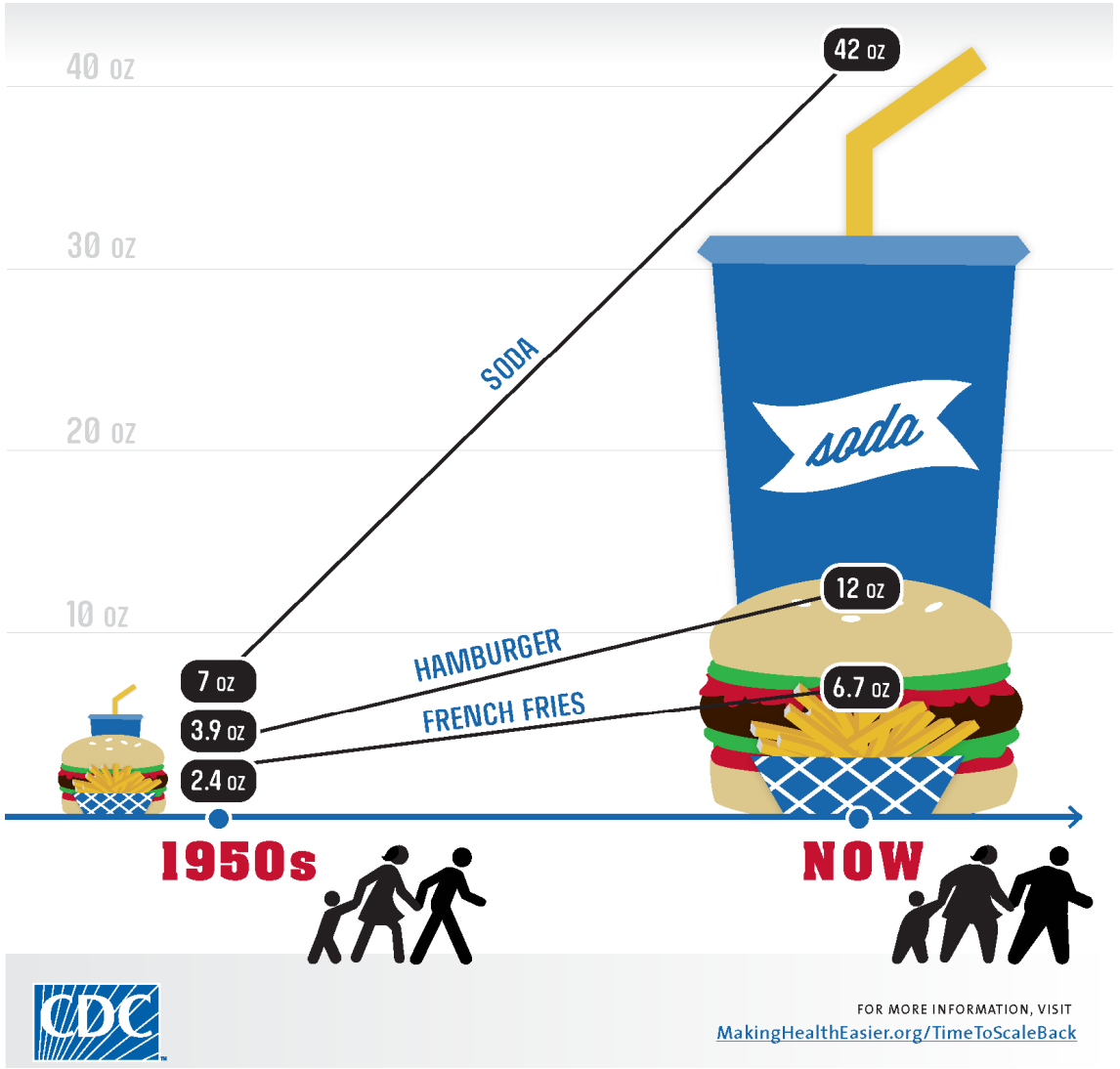
(Schapira MM et al. Journal of Health Communication 2006;11:569–582.)

Comparison increases credibility





Infographics



http://www.cdc.gov/socialmedia/tools/infographics.html

- Showing risks
  - ✓ “Thyroid cancer will strike about 7.7 out of 1000 baby girls.”
  - ✓ “7.7 out of 1000 baby girls become thyroid cancer in their lifetime.”
  - ✓ “Chances of baby girls to become cancers in their life time are…”

Low numeracy level, but info. not sufficient

Specify time and outcome

Compare

All	Breast	Thyroid
290	55	7.7

(Woloshin S, et al. Know your chances. University of California Press. 2008.)

All	Breast	Thyroid	Increase due to Fukushima accident
290	55	7.7	1.8

23% increase
(1.8/7.7)

*Data from WHO's earliest report: Health risk assessment for the nuclear accident after the 2011 Great East Japan Earthquake and Tsunami.

(Woloshin S, et al. Know your chances. University of California Press. 2008.)

Risk vs Benefit
for the person

- Framing risks
  - ✓ “After taking this treatment, 80% can go back home within three days.”
  - ✓ “After taking this treatment, 20% cannot go back home within three days.”

(Woloshin S, et al. Know your chances. University of California Press. 2008.)

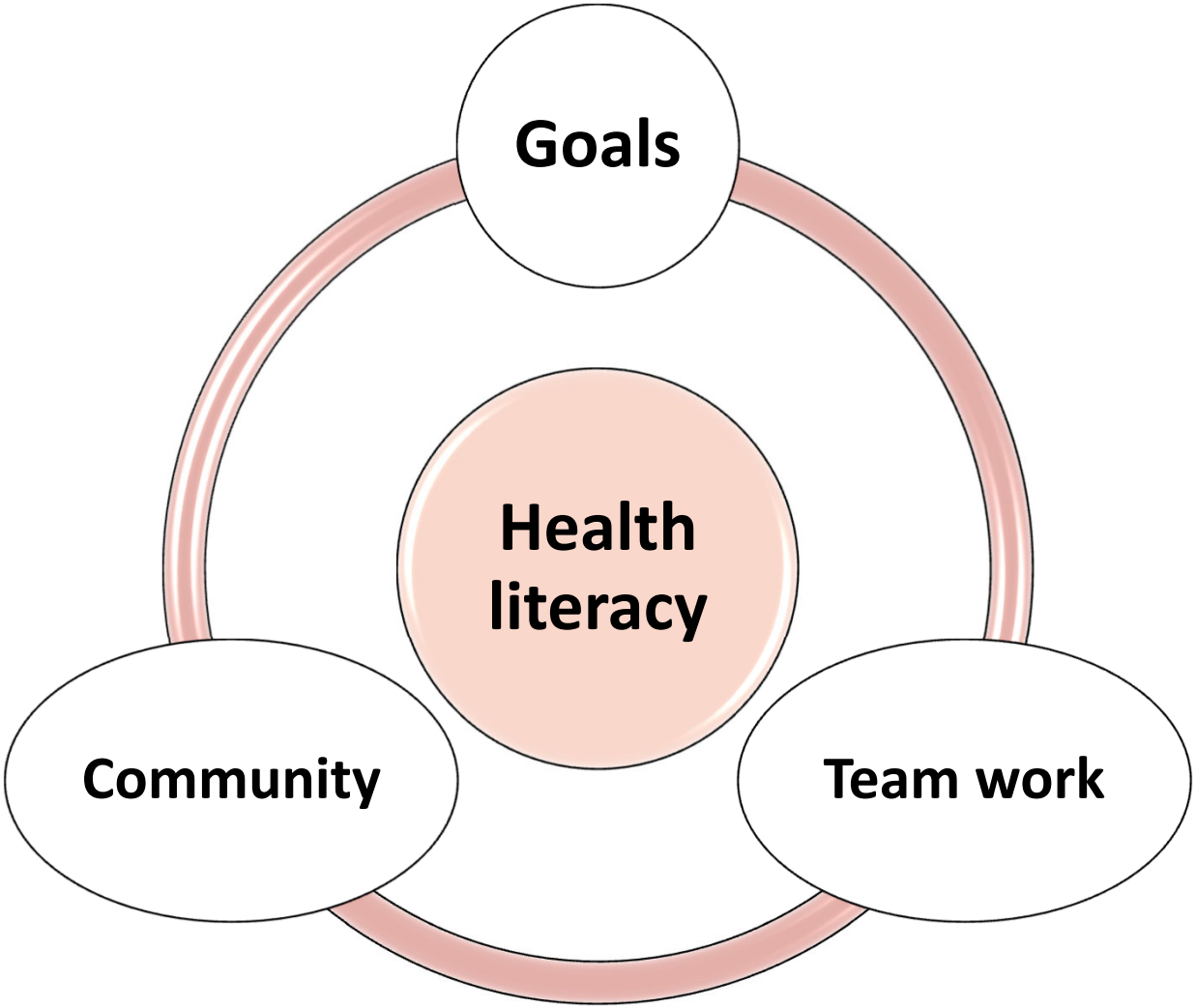
Long-term follow-up after training

One-year after training	Nurses (N=31)
I applied learned skills in practice.	68%
I gained confidence in assessing in revising written materials.	32%
I want to attend further training.	81%
Selected knowledge items I can explain health literacy needs. I can explain numeracy levels.	 65% 12%
Selected assessment items I can use the Marker Method	 61%
Selected development items I can write easy-to-read text. I can explain risk.	 52% 16%

Japan Medical Association Journal. 2015; 58: 1-9.
Journal of Seizon and Life Sciences. 2017; 27: 192-207.

“When I gave a talk about exercise and practiced at an elderly club, I used topic sentences and SAM (assessment tool) to make a leaflet. I was able to clearly communicate my points and facilitate [the session] smoothly.” (Public health nurse)

Health literacy and health system



Goto A. Thinking, talking, and working with professional community workers after the Fukushima nuclear accident. Ann ICRP. 2016.