수출용 자료

紅鹿 홍록 강글리오

ANTLER

HONG-ROK

(GANGLIOSIDE)


HANGUK BIO CENTER CO.,LTD.
(주)한국융복합바이오공학센터

122 Soyang-myeon, Wanju-gun, Jeollabuk-do, Korea
Phone: 82-63-276-3933. foodbay@hanmail.net. 82-10-2817-2800

# Hanguk Bio Center Co., Ltd.

## 2011 Corporation Established

Performed by the Small and Medium Business Administration R&D

Family Company of Wonkwang University

Health Functional Food Development with Wonkwang University

**Dementias Prevention and Functional Food Production**

**Joint development with Wonkwang University**

**HONG-ROK (Ganglioside) Fermented Antler and Red Ginseng**

# ◆ Company Introduction

- President : KIM YEUN CHUN (Founded : 2011. 5.)
- Products : Health functional food, Microbial fermentation
- Production : Self & OEM

## HANGUK BIO CENTER CO., LTD.

## R & D with Wonkwang Universty


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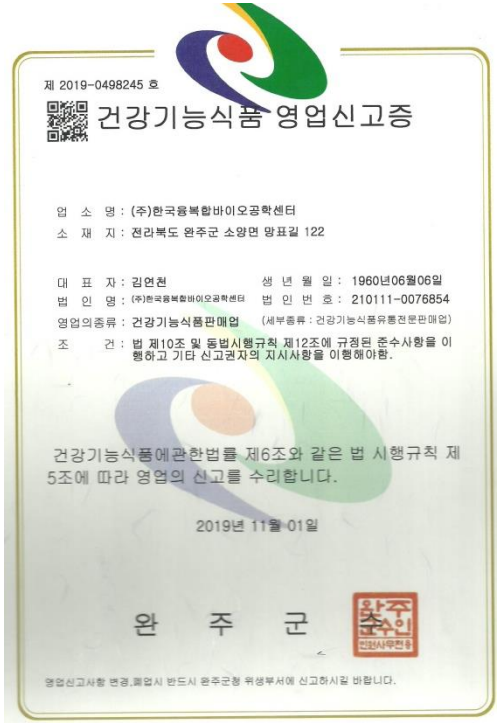
(GANGLIOSIDE)

## OEM parterner

# Technology development with Wonkwang Universty

R & D


# Hanguk Bio Center Co., Ltd.



제 2019-0498245 호

건강기능식품 영업신고증

업 소 명 : (주)한국융복합바이오공학센터
소 재 지 : 전라북도 완주군 소양면 망표길 122

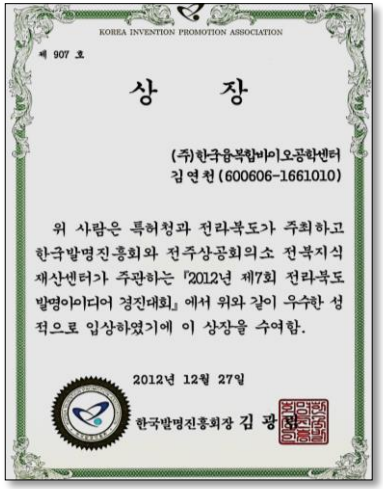
대 표 자 : 김연천 생 년 월 일 : 1960년06월06일
법 인 명 : (주)한국융복합바이오공학센터 법 인 번 호 : 210111-0076854
영업의종류 : 건강기능식품판매업 (세부종류 : 건강기능식품유통전문판매업)
조 건 : 법 제10조 및 동법시행규칙 제12조에 규정된 준수사항을 이행하고 기타 신고권자의 지시사항을 이행해야함.

건강기능식품에관한법률 제6조와 같은 법 시행규칙 제5조에 따라 영업의 신고를 수리합니다.

2019년 11월 01일

완 주 군

영업신고사항 변경,폐업시 반드시 완주군청 위생부서에 신고하시길 바랍니다.



KOREA INVENTION PROMOTION ASSOCIATION

제 907 호

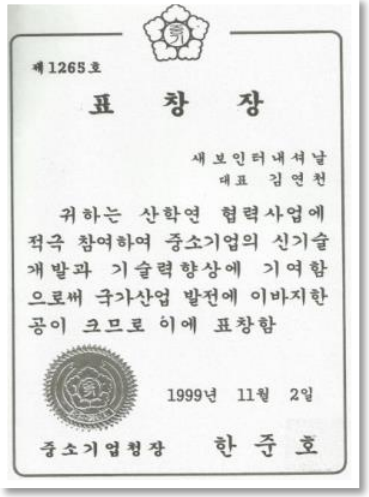
상 장

(주)한국융복합바이오공학센터
김연천(600606-1661010)

위 사람은 특허청과 전라북도가 주최하고 한국발명진흥회와 전주상공회의소 전북지식재산센터가 주관하는 「2012년 제7회 전라북도 발명아이디어 경진대회」에서 위와 같이 우수한 성적으로 입상하였기에 이 상장을 수여함.

2012년 12월 27일

한국발명진흥회장 김 광 [illegible]



제 1265 호

표 창 장

새로인터내셔날
대표 김연천

귀하는 산학연 협력사업에 적극 참여하여 중소기업의 신기술 개발과 기술력향상에 기여함으로써 국가산업 발전에 이바지한 공이 크므로 이에 표창함

1999년 11월 2일

중소기업청장 한 주 호

특 허 증

CERTIFICATE OF PATENT

특 허 제 10-1346313 호

(PATENT NUMBER)

발명의명칭 (TITLE OF THE INVENTION)
송식을 쓰레기 처리장치

특허권자 (PATENTEE)
김연천(600606-1******)
전라북도 완주군 소양면 망표길 122

발명자 (INVENTOR)
김연천(600606-1******)
전라북도 완주군 소양면 망표길 122

위의 발명은 「특허법」에 따라 특허등록원부에 등록되었음을 증명합니다.
(THIS IS TO CERTIFY THAT THE PATENT IS REGISTERED ON THE REGISTER OF THE KOREAN INTELLECTUAL PROPERTY OFFICE.)

2013년 12월 23일

특허청장 김 영

## Company Vision and Goal

- A healthy life
- Prevent dementia and achieve a happy life
- Pursuit of family happiness
- Healthy family life for all

# Introduction of HONGROK
## (Ganglioside)

1set/out box = 30ea (1 monthly) [1ea = 15g, 15ea x 2 inner box ]

OR

1set/out box = 60ea (2 monthly) [1ea = 15g, 15ea x 4 inner box ]

# HONGROK
(Ganglioside)

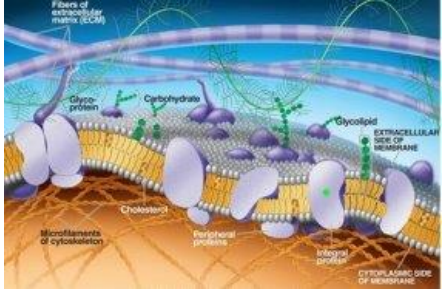
## Introduction

- **Major ingredients**
  - Ganglioside(Fermented antler), Saponin(Fermented red ginseng),
  - Maca(Lepidium meyenii) concentrate powder, Silk Peptide, Lespedeza cuneata concentrate

- **Efficacy**


- Anti-cancer
- Accelerated growth
- Hematosis/Hematic
- Immunity buildup
- Strengthened vigorousness(Stamina buildup)
- Improved memory power, Prevention of dementia/Alzheimer's
- Fatigue recovery
- Improved blood circulation by inhibiting thrombocytopenia
- Antioxidation
- Minimized menopause disorder
- Improved coefficient of digestibility through enhanced intestinal absorption
- Increased beneficial intestinal bacteria
- Enhanced internal resorption through starch degrading by enzyme

# HONGROK
(Ganglioside)




- Feature

- **Increasing the absorption rate in the intestinal cells to increase the fast effect, strongly improving the existing absorption rate problem.**

- **Using the effective microorganisms, a special method is applied so that the components of antler, red ginseng formed through fermentation aging process are immediately absorbed into the intestinal cells.**

- The first of the major functions of gangliosides is immunity. The basic unit of our body is the cell, and the health of the cell leads to the health of our body. Through the cell membranes surrounding the cells, cells send and receive signals, and gangliosides are involved in recognizing and accepting substances from outside the cell.

  Gangliosides act as receptors and receptor cofactors of many biomaterials, including bacterial toxins, glycoproteins, and hormones, and contribute to the expression of immune cells. In addition, gangliosides play a role in specifically binding and mediating viral toxicity such as viruses and cholera. Flu viruses are also associated with gangliosides.

  Gangliosides are also associated with Guillain-Barré syndrome. Guillain-Barré syndrome is a disease in which the body's immune system attacks the central nerve, including the peripheral nerves or peripheral nerves. Gangliosides can lead to Jialang-Barré syndrome when deficient through the immune system. Geylang-Barre syndrome is a symptom of muscle weakness or changes in sensation that begins in the legs. If these symptoms become more severe, the muscles become unusable, and in severe cases, the whole body may be paralyzed. Sometimes it causes weakness in the muscles responsible for breathing and affects blood pressure and heart rate, which can lead to life-threatening medical emergencies, requiring medical attention.
- Gangliosides are present in many red blood cells, which are involved in the regeneration and destruction of red blood cells and help maintain blood flow and blood circulation. Gangliosides also increase body temperature, promote metabolism and promote blood circulation.

- Gangliosides inhibit the inflammatory factor called NF-KB in the body and affect the inflammation suppression in the body. Gangliosides present in many skeletal tissues help prevent and treat inflammation, especially arthritis

# HONGROK
(Ganglioside)

- Effectiveness of each major ingredient

- Ganglioside (fermented antler): Active substance that maintains body function involved in nerve function and various functions of cell membrane

  Efficacy: Anti-cancer effect, Strengthening muscle bones. Enhancement energy, Growth/Physiological activity, Strengthening immunity, Improving blood circulation, Activating blood circulation, Improving memory/concentration, Activating brain function, Strengthening joints
  Gangliosides are composed of hydrophilic and hydrophobic lipid moieties. Ganglioside is said to have been first isolated in 1942 by German scientist Ernst Klenk from ganglion cells in the brain. Gangliosides are involved in signaling in vivo by regulating cell membrane fluidity, mass transfer and protein phosphorylation. The role of gangliosides is related to several diseases.

- Saponin (Fermented red ginseng) : Composed of 32 kinds of Saponin("Ginsenoside": Triterpenoid Saponin, related to dammarane)

  Efficacy: Detoxication of alcohol, Hepatitis inhibition, Anti-inflammatory, Central nervous system depressant , Antipyretic analgesic , Protection of liver function, Anti-diabetic, Anti-arteriosclerotic, Liver cell increasing, Pain-killer, Protein synthesis promotion, Lipid synthesis promotion, Adrenocorticotropic hormone secretion promotion, Marrow cell synthesis promotion, Brain cell pain release, Inhibiting lipid Peroxidation, Learning function improving, Antifatigue, Platelet antiaggregating, Improved hypomnesia, Suppression of cancer cell metastasis tolerance, Inhibition of anticancer drug resistance

# HONGROK
(Ganglioside)

- Maca(Lepidium meyenii) concentrate powder

  **Efficacy: Middle& old aged: Antiaging, Mitigation of menopausal symptom, Endurance increasing Immunity strengthening, Improving bone health**
  **Male: Sexual function increasing, Male hormone secretomotor**
  **Female: Obesity control, Mitigation of menstrual pain, Skin rejuvenation**

- Silk Peptide(Silk Amino acid)
  **Efficacy: Hypogly chaemic effect, Blood cholesterol lowering, Alcohol metabolism promotion, Dementia prevention, Antioxidation**

- Lepidium meyenii concentrate powder
  **Efficacy: Prevention and cure of vasculitis**
  **Liver protection, Mitigation of Male climacteric disorder, Antioxidation, Vasorelaxation**

# HONGROK
(Ganglioside)

Effects

Prevents dementia, prevents Alzheimer's, improves memory and improves concentration
Improved brain function
Anticancer activity
Increased immunity
Improve blood flow through platelet aggregation and activate blood circulation
Hematopoietic / Bleeding Actions
Tonic (Enhance Strength)
Increased energy
Strong joints
Improve fatigue
Promotion of growth
Helps with women's menopausal health

Paper Summary

# 유산균을 이용한 녹용 발효물 제조

**송봉준[1] • 김연천[2] • 노성민[4] • 오준석[1] • 최연주[1] • 박래현[3]**
[1]원광대학교 식품공학과, **[2](주)한국융복합바이오공학센터** [4](주)뉴팜, [3]원광대학교

# Manufacture of antler fermented with lactic acid bacteria

**Bong jun Song[1], Kim Yeun Chun[2] , Seong min Noh[4], Jun seok Oh[1], Yeon ju Choi[1], Rae hyun Park[3]**
[1]Dept. of Food science and Biotechnology, Wonkwang university
**[2]Hanguk Bio Center Co., Ltd**. [4]Nutriental Pharmacy Co., Ltd.
[3]Dept. of Civil & Environmental Engineering, Wonkwang university

**Abstract**

**This study was conducted to ferment by lactic acid bacteria of fermented antler (*Cervi Parvum Cornu*) and measure content of ganglioside. The content of ganglioside in 11 samples was measured by HPLC from fermented antler by enzyme and lactic acid bacteria. Samples of antler are made using sample processing methods that show the highest content of Ganglioside.**
**Key words :** Antler, Fermentation, Lactic acid batctera, enzyme, Ganglioside

## Introduction

Deer Antlers (Cervi Parvum Cornu) are dense and still hairs of the deer of C. nippon Temminck, C. elaphus L., or C. canadensis Erxleben, belonging to the deer and the genus (cervus).Cut and dry young horns that have not been or have been slightly boned.Deer antler is divided into manok, plum, siberian, and new zealand, reindeer, and reindeer.Produced in, but mostly from New Zealand.
The pharmacologically active components of deer antler are known as ganglioside, pantocrin (70% ethanol extract), amino acids, calcium phosphate, calcium carbonate, collagen, phospholipids, chondroitin, glucosamine, hyaluronic acid. Distilled in alcohol, many of the active ingredient is lost. Among them, ganglioside is known to be involved in nerve function and various functions of cell membrane. It plays an important role in the growth, proliferation and differentiation of cells, and has been reported to be excellent in inhibiting cancer cells and in immunity. In addition, it acts as a receptor and receptor cofactor of various biomaterials such as bacterial toxins, glycoproteins, hormones, and contributes to the expression of immune cells.
It is especially present in the human brain and is involved in brain development and memory. Therefore, this study was fermented using two enzymes (protease, pectinase) and three kinds of lactic acid bacteria to increase the active ingredient of ganglioside. The fermentation process has various benefits such as increase of useful ingredients4), grant new bioactivity5), increase absorption rate6), reduce or eliminate residual pesticides7) and increase useful gut microorganisms5). The biological conversion method used is widely used in industry. The purpose is to increase the ganglioside components in the antler extract by fermenting the antler antler and to measure the ganglioside content and use it in the antler industry.

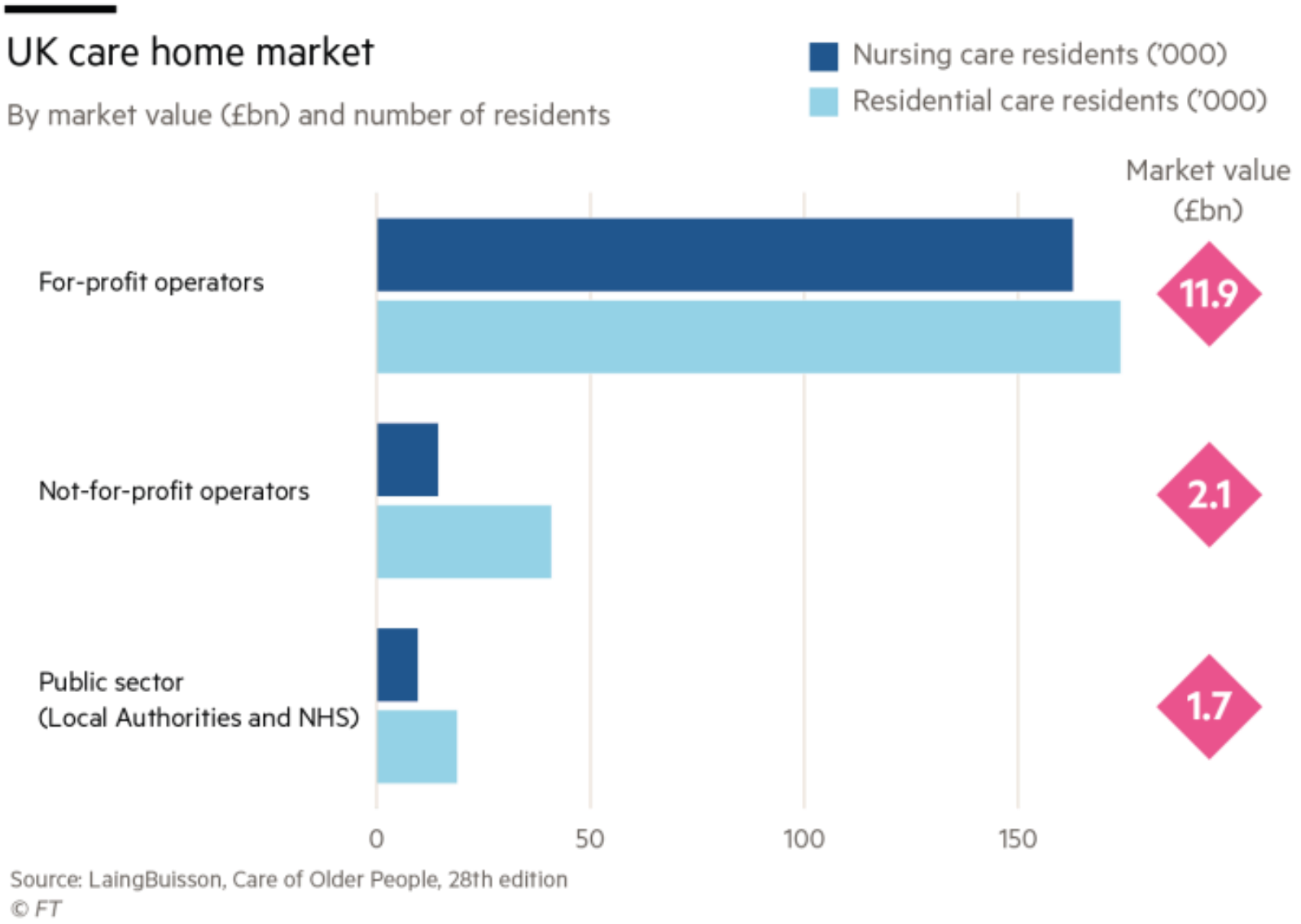
…… (Skip….)

## Wonkwang university (2019. 8. 23) : visit foreign buyer


**한국일보 2019. 11. 4. 월요일자 신문** Hankook Ilbo Newspaper

"한국"의 치매 비용 Cost of Treatment of Dementia Patients in Korea

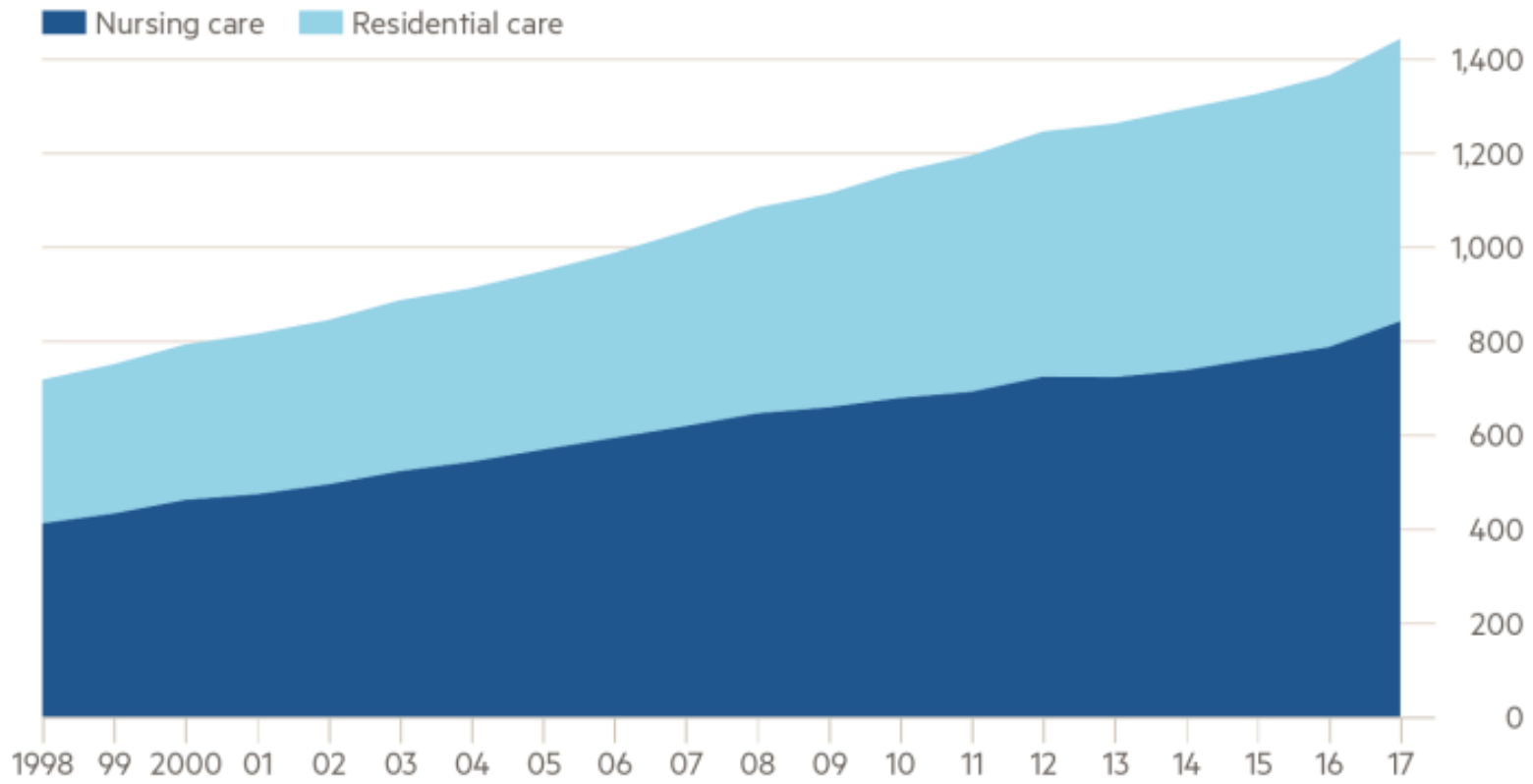
# UK Nursing Home Dementia Market Structure



# UK nursing home dementia treatment costs increase

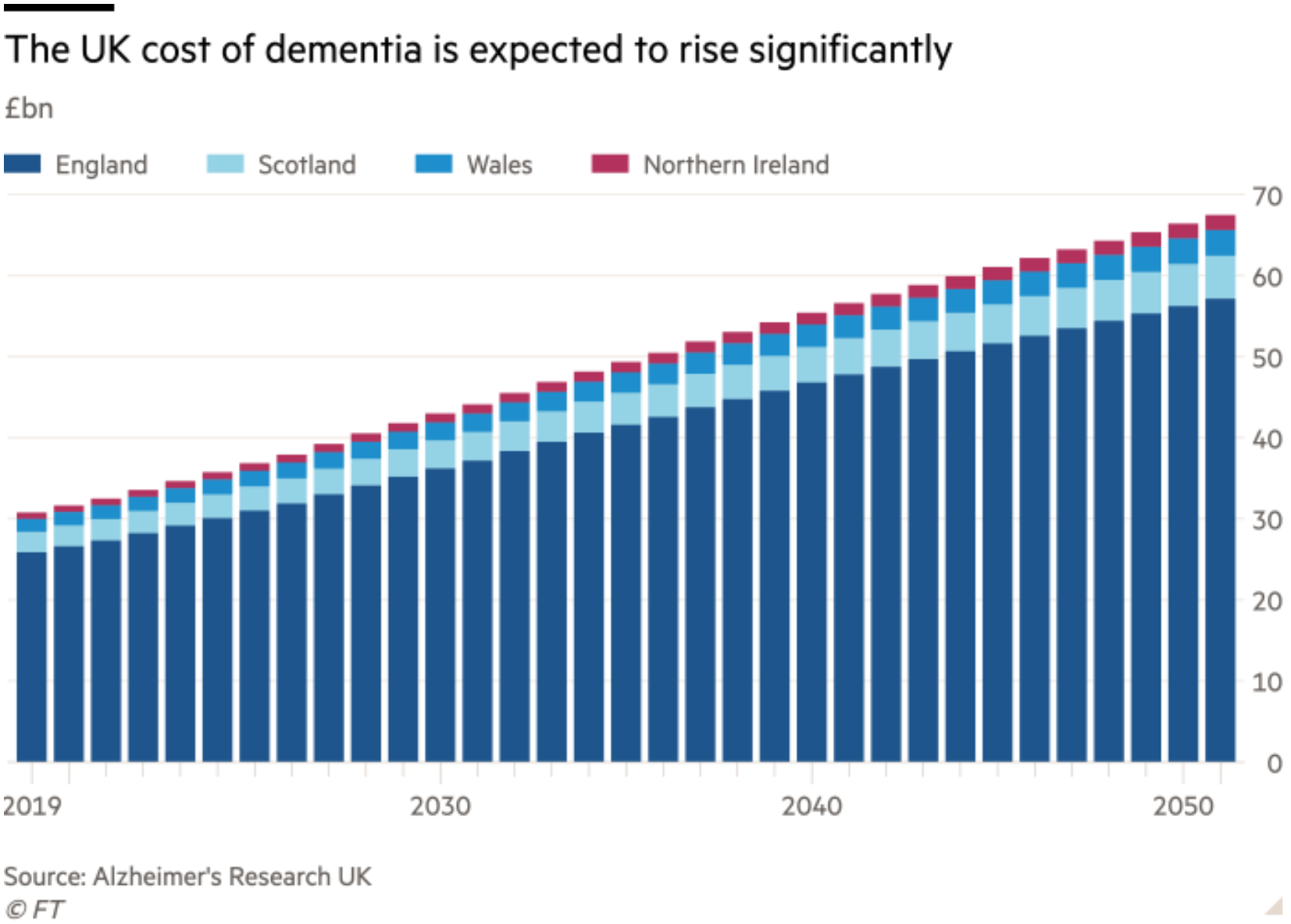
## The rising cost of care*

Average weekly fees for nursing and residential care in for-profit homes (£)

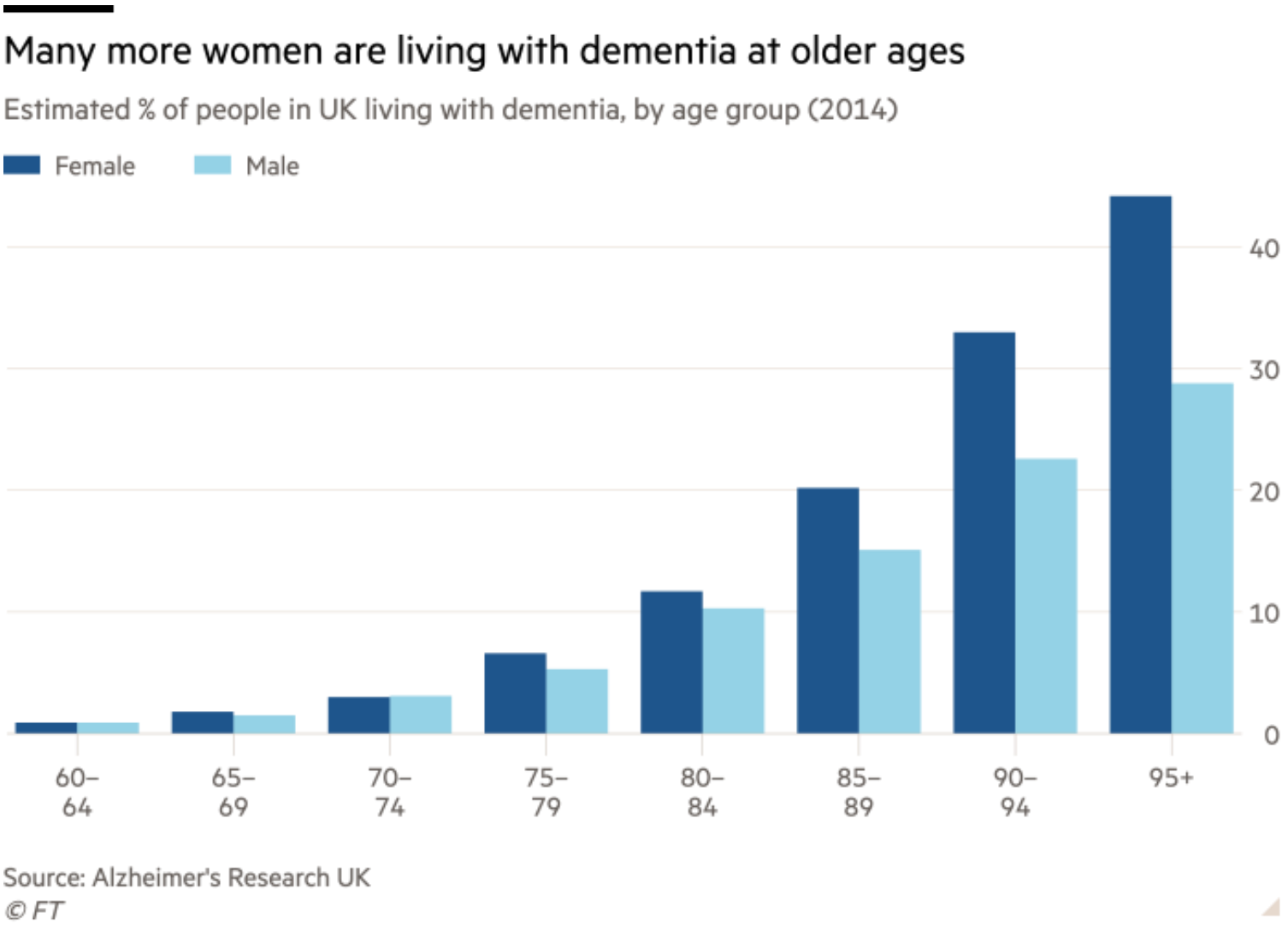



Source: LaingBuisson, Care of Older People, 28th edition *Public and private payers combined

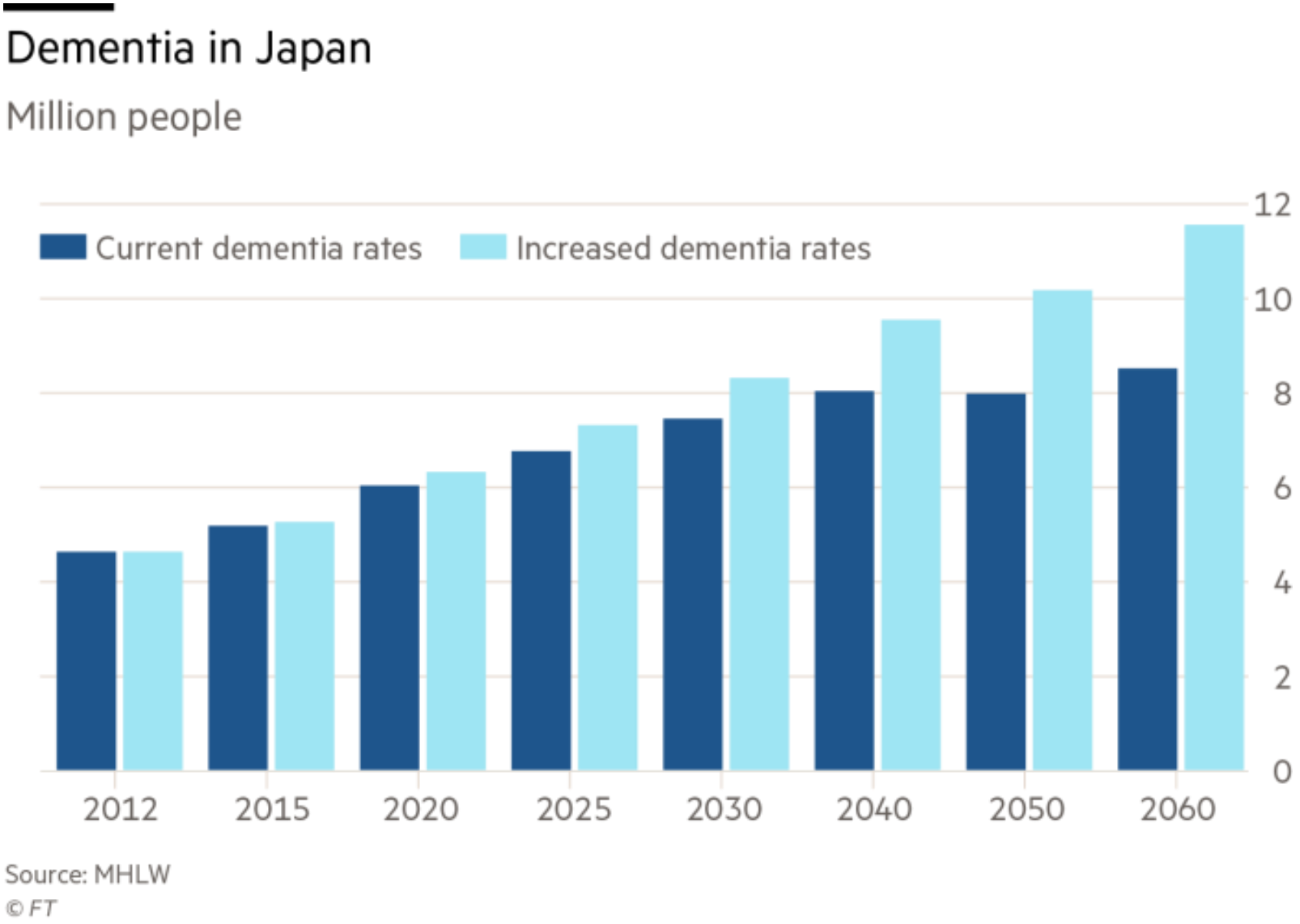
# UK dementia treatment costs increase



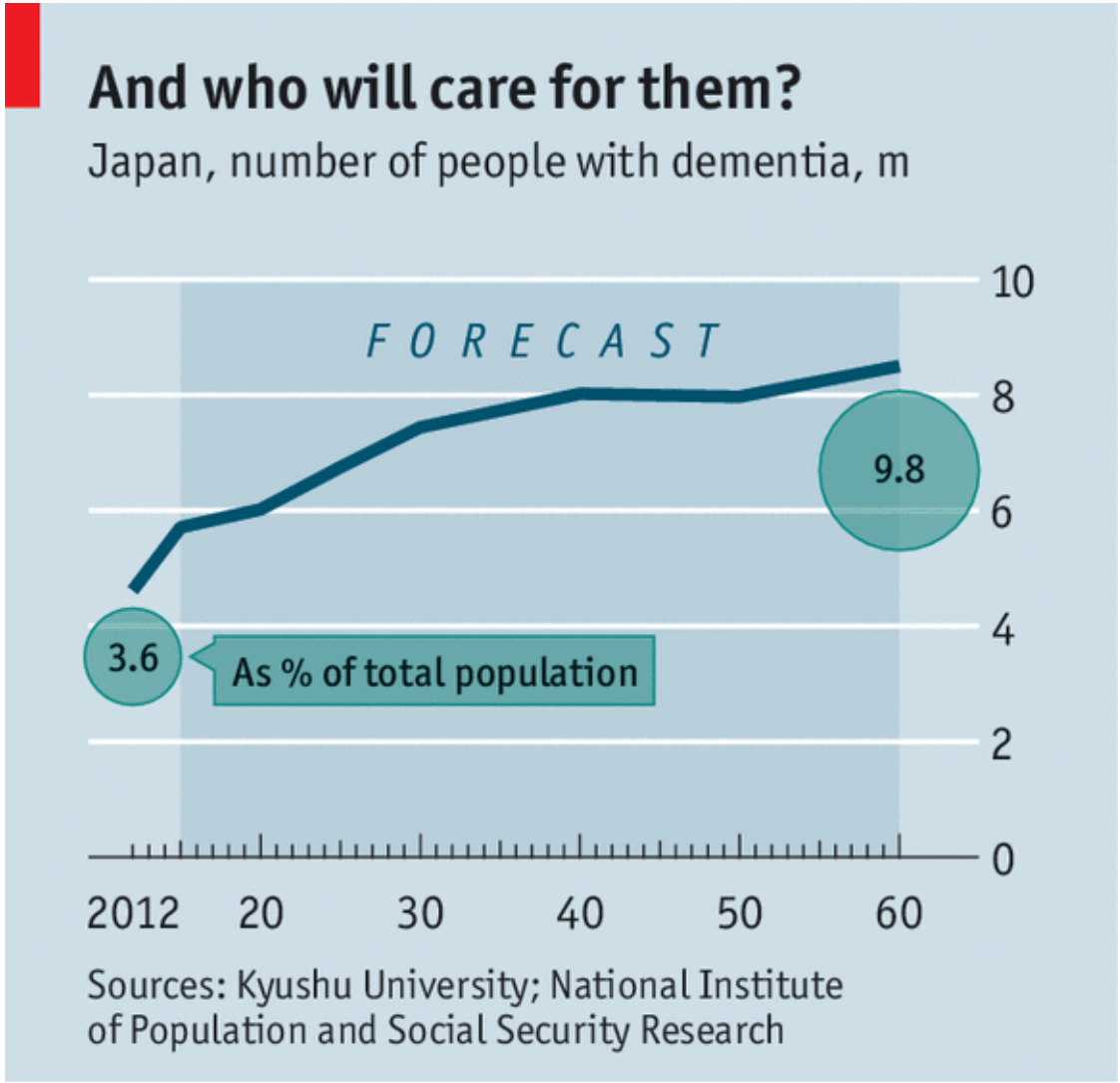
# Dementia Rates by Age Group in the UK



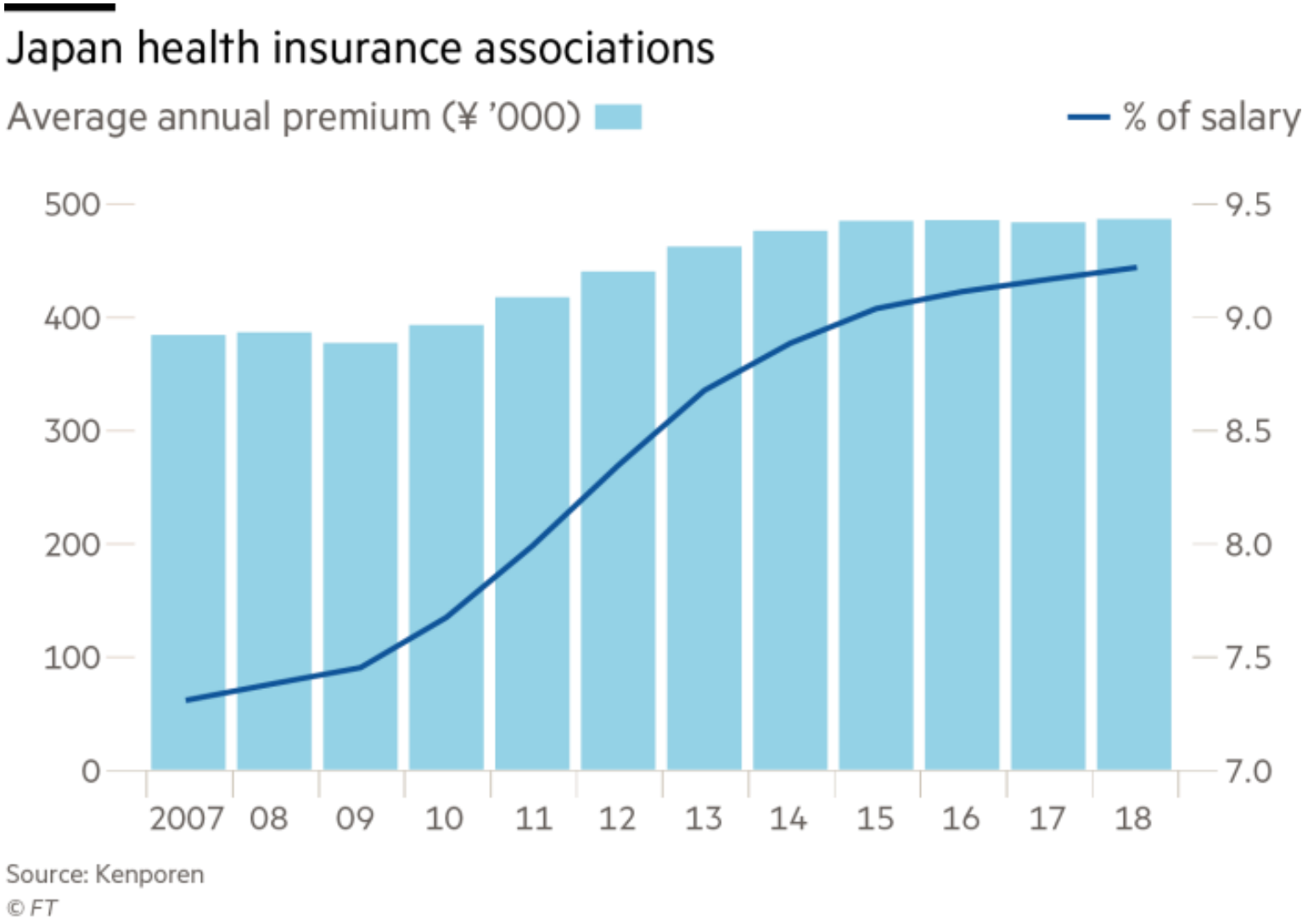
# Expected Dementia Population in Japan



# Trend of Dementia Population in Japan



# Changes in "Japan" Medical Insurance Amount and Wage



# Increased dementia costs in the US