



**ACHIPIA**  
Ministerio de  
Agricultura

Gobierno de Chile

**ACHIPIA**  
Agencia Chilena para la Calidad  
e Inocuidad Alimentaria

# Governmental Efforts against AMR in the Food Chain in Chile

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ACHIPIA – Ministerio de Agricultura  
Chile

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Alimentos Seguros y Saludables,  
Tarea de Todos/as

# Food Safety & Food Chain



# “To the development of an integrated surveillance program in AMR”

Dec 2014



**Create Awareness and Identification of Stakeholder and suitable professionals at Government level.**



# Foundations for future work

Government –  
Academia Workgroup

Consense Work Plan



1. Define a permanent workgroup
2. Determine the capacities on ASAT and knowledge in AMR
3. Designe an integrated surveillance plan along the food chain





## Asia-Pacific Economic Cooperation

Coordinated Research Initiative for the Implementation of Antimicrobial Resistance  
Control Strategies.

2015



### Survey Results

- Concern and Knowledge is low in general public, food producers, veterinarians and politicians and is high in academia and health professionals.
- There are 2 authorities for the registration of use and authorization, one for animal drugs and other for human with no permanent communication between them.
- There is only AMR surveillance in clinical human isolates
- All food has a veterinary drug residue program associated.

# Identification of Bacteria that present the most challenge in public health aspect in Chile

Foodborne	Infectious Disease
1. Salmonella	1. Neisseria meningitidis
2. E. coli STEC	2. Streptococcus pneumoniae
3. Listeria monocytogenes	3. Enterobacteriaceae carbapenemasa positivo
4. Brucella spp.	4. Salmonella
5. Vibrio parahaemolyticus	5. E. coli STEC

# Food Chain selection and elaboration of a proposal (2016)



# Integrated Surveillance Plan

## Integrated surveillance program of AMR in Salmonella from humans, food, animals and farm environment in chicken production food chain





# 2016: National Action Plan Development

<http://diprece.minsal.cl/programas-de-salud/programas-enfermedades-transmisibles/resistencia-antimicrobiana/>

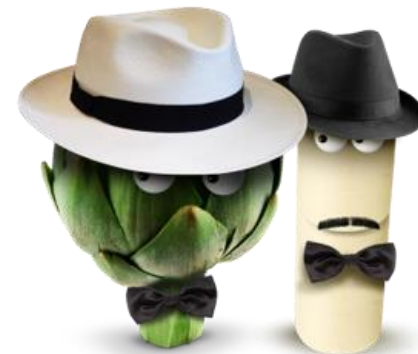
## Specific Objectives



# Priorization of activities in the National Action Plan related to Food Chain

2017

- **Integrated Surveillance in AMR (capacity)**
- **Generation of Apply investigation** related to AMR in Chile
- **Communication Strategies development** in terms of AMR and National Action Plan implementation .



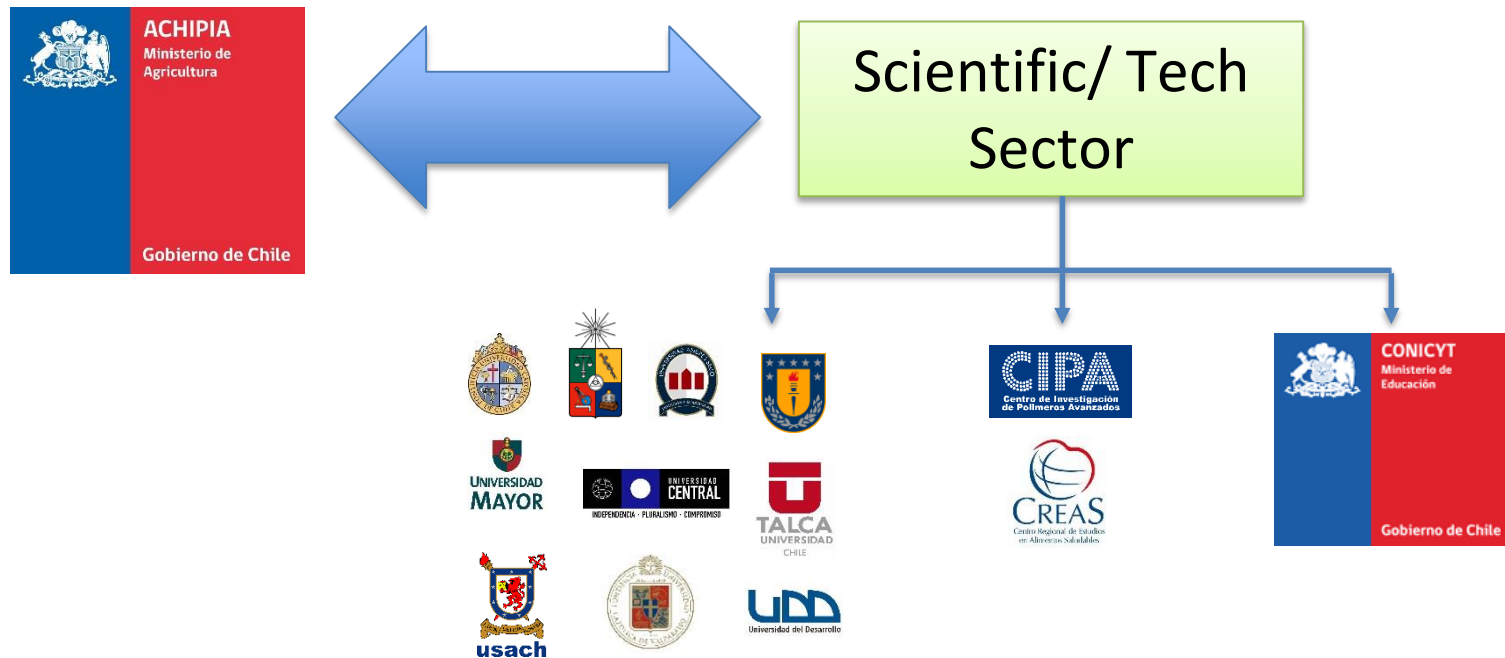
# Integrated Surveillance

- Capacity diagnostic in the **coordination** of sampling and isolates shipments of Salmonella from Chicken at retail level **from regions** to the National Reference Laboratory (10/15).
- Capacity of the National Reference Laboratory **to expand their scope of work** in AMR to this new isolates and integration of the results with human isolates.



# Generation of Applied Research

New Governmental Project grant specific for Food Safety and with scope in AMR and generation of alternatives for use of AM in animal production.



# Communication Strategies



## Objective:

to make Chilean population familiar with the concept of "food safety"

## Aimed to:

children and adults (food consumers)

## means of disseminating:

schools, events, fairs, social networks, public transport

# CREATIVITY

creativity as strategy to differentiate and as an action tool

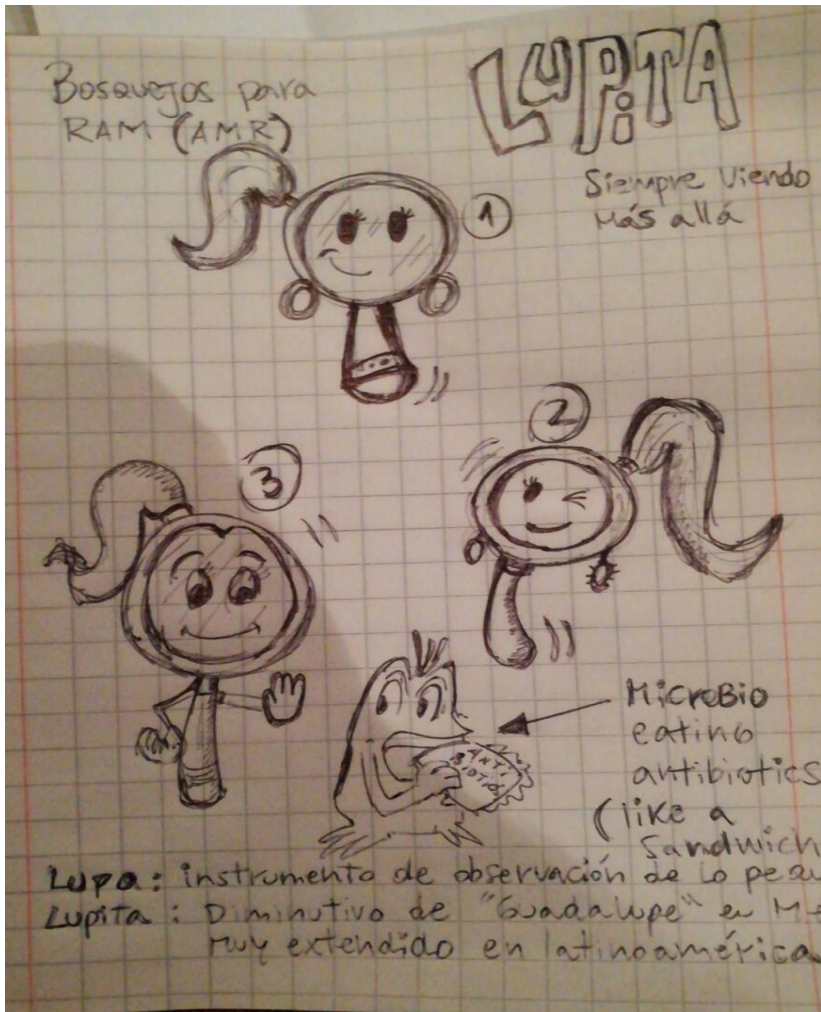
(from documentary "everything is a remix")

**Be safe...** would be the base of our communicational proposal to reduce food risks.

Alimentos Seguros y Saludables, Tarea de Todos y Todas

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Agencia Chilena para la Inocuidad y Calidad Alimentaria

# Communication Strategies



Concern about risk perception on Chicken consumption in Chile



Develop a new character for introduce AMR to people and other scientific information

# AMU in Chile

## Efforts and Current Legislation



# AMU IN AQUACULTURE RELEVANT ACTORS

**GOVERNMENT**

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**VETERINARIANS**

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**PHARMACEUTICAL  
LABORATORIES**

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**VETERINARY  
FACULTIES**

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**RESEARCHERS**

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**PRODUCERS**

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# REGULATORY FRAMEWORK

## Control of the use of AM

### LEY GENERAL DE PESCA Y ACUICULTURA

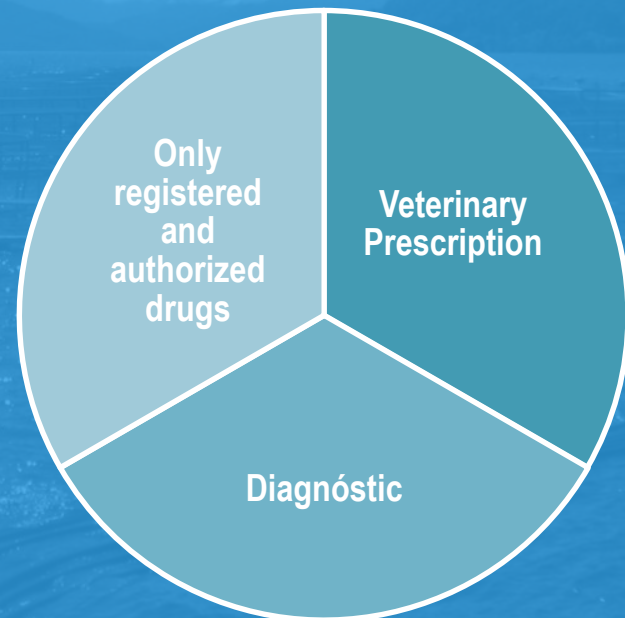
All treatments must to be declared

Responsible use:

- No preventive use
- AMR monitoring in animal pathogens to preserve use
- Implementation of prevention measures to avoid bacterial disease

Transparency: All the use is periodically inform and publicated on the web site

### REGLAMENTO SANITARIO D.S. N°319/2001



# ON LINE SYSTEM OF AQUACULTURED PRODUCTION

## SIFA ON-LINE

The screenshot shows the SIFA ON-LINE web application interface. At the top left is the logo for SERNAPESCA (Servicio Nacional de Pesca) and the title "Sistemas de Fiscalización de Acuicultura". On the right, it displays the user information "Usuario: CENTRO" and a "Logout" link. A left sidebar contains navigation options: "Inicio", "Volver", "Menú tratamiento y vacunación" (with sub-items "Registrar" and "Administrar"), and "Consulta Sernapesca" (with sub-items "Vacunaciones" and "Tratamientos"). The main content area is titled "Registrar Declaración" and has three tabs: "Declaración", "Tratamientos", and "Vacunaciones". Below the tabs, a note states "Los datos con \* son obligatorios". A button labeled "[+] Ingreso Tratamientos" is visible. The form includes a checkbox for "Utilizar último tratamiento ingresado" (checked) and a "Sin Tratamiento" option. The "Unidad de Cultivo" section contains fields for "Grupo" (with a "Nuevo Grupo" icon), "Especies", "Identificador Estructura" (with a "Seleccione" dropdown), "Cantidad de peces", and "Peso promedio de peces" (in Gramos). The "Diagnóstico" section has a "Diagnóstico" field. The "Producto" section includes fields for "Producto farmacéutico", "Principio activo", and "Vía de administración".

**sernapesca**  
Servicio Nacional de Pesca

### Sistemas de Fiscalización de Acuicultura

Usuario: CENTRO [Logout](#)

[Inicio](#) [Volver](#)

**Menú tratamiento y vacunación**

- Registrar
- Administrar

**Consulta Sernapesca**

- Vacunaciones
- Tratamientos

#### Registrar Declaración

Declaración | **Tratamientos** | Vacunaciones

Los datos con \* son obligatorios

[+] Ingreso Tratamientos

Utilizar último tratamiento ingresado

Sin Tratamiento

**Unidad de Cultivo**

Grupo  \* Nuevo Grupo

Especies

Identificador Estructura  Seleccione  \*

Cantidad de peces  \* Peso promedio de peces  Gramos. \*

**Diagnóstico**

Diagnóstico  \*

**Producto**

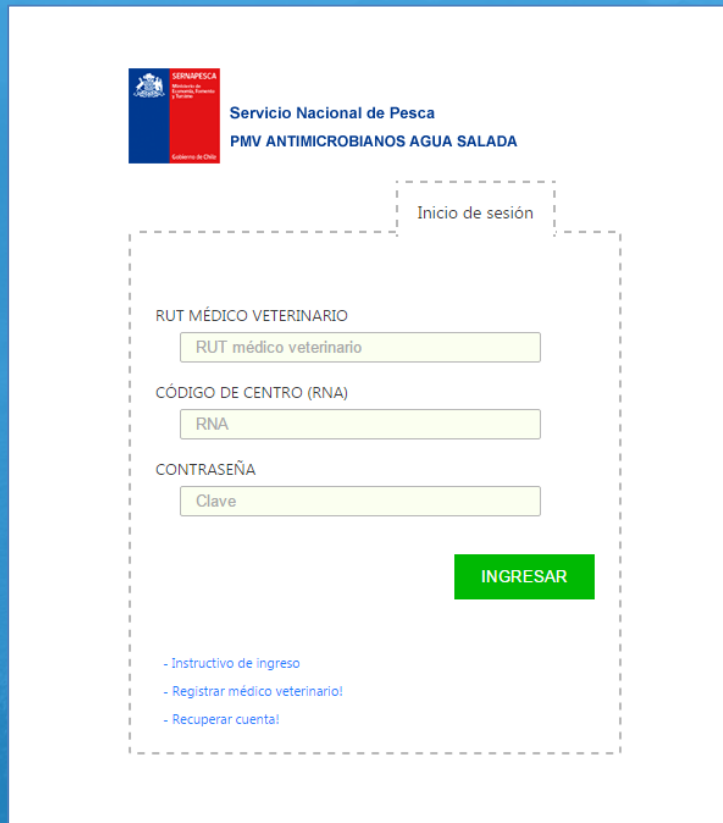
Producto farmacéutico  \*

Principio activo

Vía de administración

# RECETA CONTROLADA

La Receta Controlada Oficial, a través de un sistema ON-LINE, próximamente única metodología para la emisión de Prescripciones Médico Veterinarias.

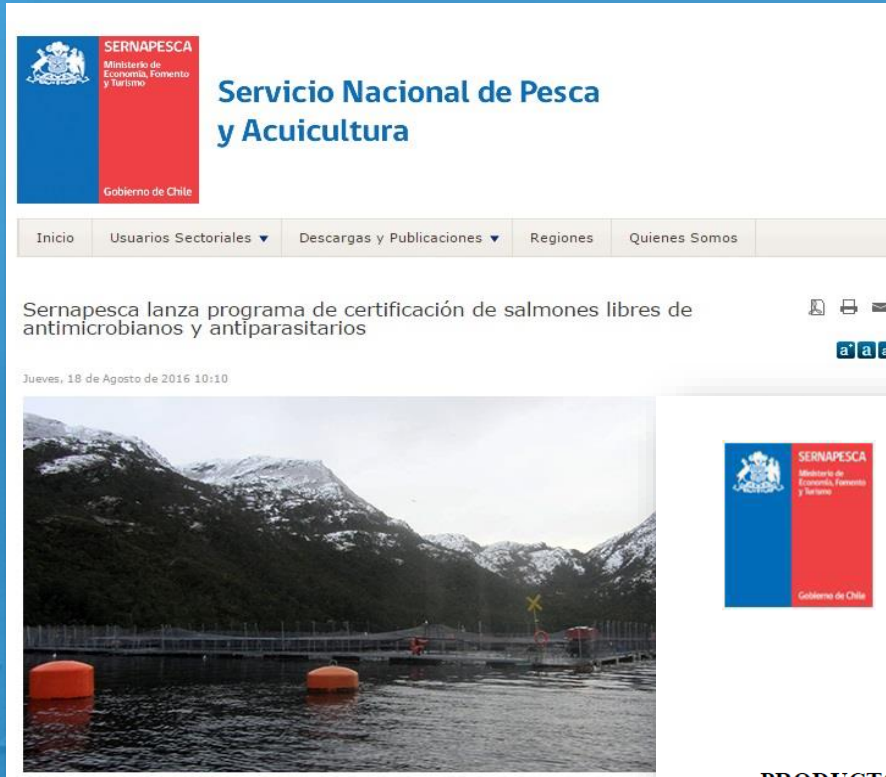


The screenshot shows the login interface for the Sernapesca PMV Antimicrobianos Agua Salada system. At the top left is the Sernapesca logo, which includes the text 'SERNAPESCA', 'Ministerio de Economía, Fomento y Turismo', and 'Chile en la Océanos'. To the right of the logo, the text reads 'Servicio Nacional de Pesca' and 'PMV ANTIMICROBIANOS AGUA SALADA'. Below this is a dashed box labeled 'Inicio de sesión' containing three input fields: 'RUT MÉDICO VETERINARIO' with a sub-label 'RUT médico veterinario', 'CÓDIGO DE CENTRO (RNA)' with a sub-label 'RNA', and 'CONTRASEÑA' with a sub-label 'Clave'. A green 'INGRESAR' button is positioned below the fields. At the bottom left of the dashed box, there are three links: '- Instructivo de ingreso', '- Registrar médico veterinario!', and '- Recuperar cuenta!'.

## ACCESO

<http://pmv.sernapesca.cl/login>

# FREE ANTIMICROBIAL PROGRAM CERTIFICATION




**SERNAPESCA**  
Ministerio de Economía, Fomento y Turismo  
Gobierno de Chile

## Servicio Nacional de Pesca y Acuicultura

Inicio | Usuarios Sectoriales ▼ | Descargas y Publicaciones ▼ | Regiones | Quienes Somos

Sernapesca lanza programa de certificación de salmones libres de antimicrobianos y antiparasitarios

Jueves, 18 de Agosto de 2016 10:10



CER-FAR/MP1/Agosto 2016

### ANEXO 3

FECHA: <i>DATE</i>	
NÚMERO CERTIFICADO: <i>CERTIFICATE NUMBER</i>	

### CERTIFICADO OFICIAL

### PRODUCTO LIBRE DE USO DE ANTIMICROBIANOS Y/O ANTIPARASITARIOS

*OFFICIAL CERTIFICATE FOR*

*FISH PRODUCTS FREE OF ANTIMICROBIALS AND/OR ANTIPARASITICS TREATMENTS*

Nombre centro de cultivo: <i>Fish farm</i>	
Código RNA: <i>RNA* Code</i>	

# TRANSPARENCY

## USE OF ANTIMICROBIALS IN AQUACULTURE REPORTS

SALMON PRODUCTION  
SINCE 2005



# USO DE ANTIMICROBIANOS EN CHILE

## INFORMACIÓN SOBRE USO DE ANTIMICROBIANOS

AM CONSUMPTION (ton) v/s SALMON HARVEST (ton)

Año	AB (ton)	Cosecha Anual (ton)	Índice Consumo (ton)
2007	385,6	600.862	0,064
2008	325,6	630.647	0,052
2009	184,5	474.174	0,039
2010	143,2	466.857	0,031
2011	206,8	649.492	0,032
2012	337,9	826.949	0,041
2013	450,7	786.091	0,057
2014	563,2	955.179	0,059
2015	557,2	883.102	0,063
2016	382,5	727.812	0,053

# AMU IN TERRESTRIAL SPECIES

NOV 2017, RESOLUCIÓN EXENTA N°:6801/2017 SAG

- Sale of all veterinary drugs **need veterinarian prescription** and in the case of **Fluoroquinolones and Cephalosporin** (3° and 4° generation) the prescription will be retain.
- **The use** (therapeutic or metafilactic) **must be declare** in the prescription along with the diagnosis of the infectious process.
- **Fluoroquinolones and Cephalosporin** (3° and 4° generation) **can't not be used as first option** for treatment, except when there is no other option available. The use for first or second line of treatment should be base on **susceptibility studies**.
- **PROHIBIT** fabrication, import, export, distribution, sale,tenancy and use of antimicrobials with exclusively **preventive or growth promotion purpose**.



Thank you