Dog Population Management
Developing strategy – monitoring impact.

Acknowledgement:
This presentation is based on PowerPoints developed by Dr Elly Hiby and the ICAM coalition.

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And is presented by:
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Outline

- ICAM coalition
- Dog Population Management
- ‘Are we making a difference’ - online impact assessment tool
- ICAM conference (3)
To support the development and use of humane and effective companion animal population management worldwide.

Mission:

- World Animal Protection
- The Humane Society International (HSI)
- The International Fund for Animal Welfare (IFAW)
- The Royal Society for the Prevention of Cruelty to Animals (RSPCA) International
- The World Small Animal Veterinary Association (WSAVA)
- The Global Alliance for Rabies Control (GARC)
• To share ideas and data
• To discuss issues relevant to population management and welfare
• To agree definitions and hence improve understanding
• To provide guidance as a collegial and cohesive group
Roaming dogs may encounter a range of welfare problems:

- malnutrition
- disease
- injury through traffic accidents
- injury through fighting
- abusive treatment.

Problems associated with roaming dogs:

- Zoonotic disease
- Injury to people and other animals - fear
- Fouling and noise nuisance
- Road traffic accidents
Significant welfare problems can be associated with population control attempts:

- inhumane methods of killing e.g. strychnine poisoning
- cruel methods of catching
- poorly equipped and managed holding facilities.
- poor standards in T/C NR
Different context: Romania cf. to India

Different & multiple issues: Animal welfare, public health, social and economic issues.

(Community dogs)
Lost
Abandoned
Born on street
(owned and roaming)

Stray
Roaming
Available in:
English, Spanish, Portuguese, Russian, Mandarin and Thai
Components of a comprehensive dog population management programme (pg 12-16)

- Education
- Legislation
- Registration and identification
- Sterilisation and contraception
- Holding facilities and rehoming centres
- Euthanasia
- Vaccination and treatment
- Controlling access to resources
Euthanasia

- Ideally only for animals:
  - suffering from an incurable illness, injury or behavioural problem that prevents them being rehomed
  - not coping well enough with the facilities to maintain a reasonable level of welfare

- Successful population management programmes should create a situation where all healthy animals can be found a good home

- Reality .......cannot be achieved *immediately* in most countries....work towards this

(ref. pg. 16: Humane Dog Population Management Guidance)
Euthanasia

- Sometimes healthy animals will be euthanased (if this is legally permitted) as not enough homes exist that can provide a good level of welfare.
- This deals with only the symptoms and not the causes.
- This will not lead to population management and must not be relied upon as a sole response.
Social problem that requires a multi-stakeholder response to be successful.

- Local Community
- Government (executive/legislative/Veterinary public health ...OIE, WHO )
- Veterinary Profession
- NGOs
- Animal sheltering, fostering and rehoming community
- Educators
- Local media
- ......
Publications, Conferences & workshops

- Humane Dog Population Management Guidance
- Monitoring and Evaluation (New)
- Conference
Recent Conference

3-5th March 2015
ISTANBUL, TURKEY

Thank you to everyone who attended this event and helped to ensure that it was a huge success. The talks are now available to be viewed on the ICAM Coalition’s YouTube Channel.

The conference theme was inter-sectoral collaboration, innovation and evidence-based solutions for dog population management.

http://www.dogpopulationmanagement2015.org
Non-surgical sterilisation

See Keynote speech by Dr Linda Rhodes on YouTube

Alliance for Contraception in Dogs and Cats (ACC&D)

Michelson grant funding

Michelson prize $25 million

michelsonprizeandgrants.org
Development of a robust canine welfare assessment for dogs in trap neuter return (TNR) programmes
Dr. Heather Bacon MRCVS
1. **Describe product and intended use**
   - To identify and mitigate potential hazards to dog welfare in TNR

2. **Construct a flow diagram of the process**
   - Expert consultation and previous experience

3. **Identify potential hazards**
   - Literature review. Delphi process, expert stakeholder panel

4. **Confirm process on site**
   - Visit to existing TNR project to evaluate hazards

5. **Determine critical control points and corrective actions**
   - Identify steps that will eliminate potential welfare hazards and develop a checklist

6. **Verification**
   - Apply checklist at a second TNR programme and evaluate
Critical Control Points: Issues identified

- Two projects studied, reported as having generally good approaches to dog capture and handling and focussed staff training.
- Analgesia was provided and qualified vets used but still problems occurred:
  - Aseptic technique
  - Pain recognition and management
  - Anaesthetic control
  - Resource provision e.g. lack of postoperative water
  - Lack of individual dog assessment prior to release
A review of published studies on Dog Population Management (DPM) with respect to comprehensive approaches and outcome monitoring.

Harry Eckman IFAW

- 302 paper reviewed
- Little information available about successes or failures of fully comprehensive DPM approaches
- Most information available relates to rabies control, sterilisation and individual components of DPM
- Conclusion: guidelines recommending comprehensive approaches have not yet be extensively adopted by those working in DPM
- More consistent outcome-level data required to assess impact
Are we making a difference

- Most countries invest in DPM
- No agreed measure to establish whether an intervention is successful
- The guide helps track progress, supporting learning and subsequent improvement in DPM through the use of measurable objective indicators

Based on the presentation given Dr Elly Hiby, ICAM Scientific Coordinator, ICAM Conference, Turkey (March 2015)
Impacts

1. Improve dog welfare
2. Improve care provided to dogs
3. Reduce dog density/stabilise turnover
4. Reduce risks to public health
5. Improve public perception
6. Improve rehoming centre performance
7. Reduce negative impacts of dogs on wildlife
8. Reduce negative impacts of dogs on livestock
Indicators

- Each impact has a list of indicators

Flexibility to select indicators and methods of measurement as required for your purpose.
Why are we investing in this project?

Almost every country invests in dog population management in some form; however there is no agreed measure to establish whether an intervention is ‘working’. The ICAM Coalition has developed guidance on monitoring and evaluation of DPM interventions that supports academics, practitioners and funders to track progress, learn and subsequently improve their DPM impact through the use of measurable indicators.

If we can help people to monitor effectively, they could increase the rate at which they adapt and improve their work significantly. Our focus is on applying scientific solutions to real world problems and encouraging an increase in scientific research on DPM; our scope is international, with a particular interest in simple methods and meaningful indicators for communities searching for cost-effective impact assessment.

What have we produced?

- A literature review (of both published and ‘grey’ literature) covering efforts to measure dog population management to date plus experience from other monitoring and evaluation fields
- A guidance document explaining current best practice for monitoring and evaluating dog population management including recommended indicators and methods of measuring these. Please see the link to the right – Are We Making a Difference? A Guide to Monitoring and Evaluating Dog Population Management Interventions

Who are we collaborating with?

The indicators project benefits from the engagement of Collaborating Partners that provide scientific rigour and multi-disciplinary expertise to help build the foundation for this novel and vital research field. Partners were invited to collaborate because they bring academic and practical leadership in several topics essential to success of the project. The ICAM Coalition is extremely grateful to all partners for sharing in our ambition to see the aims of this project achieved and for their highly significant donation of time and knowledge.

Current Collaborating Partners include:

- The Boyd Orr Centre for Population and Ecosystem Health at the University of Glasgow.
- The Joanna Murching International Centre for Animal Welfare Education (JIMICAWE) at University of Edinburgh.
- The Animal Welfare and Behaviour group at University of Bristol.

Want to get involved?

Please let us know what you think by emailing info@icam-coalition.org

http://www.icam-coalition.org/IndicatorsProject.html
Dog Population Management Impact Assessment Tool

Choose the impact that your intervention aims to achieve.

**Impact 1:** Improve dog welfare

**Impact 2:** Improve care provided to dogs

**Impact 3:** Reduce dog density/Stabilise turnover

**Impact 4:** Reduce risks to public health

**Impact 5:** Improve public perception

**Impact 6:** Improve rehoming centre performance

**Impact 7:** Reduce negative impacts of dogs on wildlife

**Impact 8:** Reduce negative impacts of dogs on livestock
Example: Impact 1 Improve Dog Welfare

- Do you see skinny (thin) dogs in your population Yes/No…..
- (Do you see dogs with unhealthy skin in your population? Yes/No)
- ……..

- Specific criteria for assessing body condition score
Summary

Based on the answers you gave, we think you want to measure the following indicators.

Please note: Those highlighted in green are the ones we think will work for you; those that are greyed out don’t seem to be suitable based on your answers.

<table>
<thead>
<tr>
<th>Body condition score</th>
<th>Skin condition</th>
<th>Specific disease or injury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canine transmissible venereal tumours (TVTs)</td>
<td>Female: male ratios</td>
<td>Culling of dogs by authorities</td>
</tr>
<tr>
<td>Dog-dog interactions</td>
<td>Human-dog interactions</td>
<td></td>
</tr>
</tbody>
</table>

And that to measure these you will need to use the following methods of measurement:

Please note: Those highlighted in orange are the ones we think will work for you; those that are greyed out don’t seem to be suitable based on your answers.

<table>
<thead>
<tr>
<th>Household questionnaires</th>
<th>Street surveys</th>
<th>Clinic records</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary sources of information</td>
<td>Behavioural observation method</td>
<td>Street surveys and questionnaires for measuring vaccination coverage</td>
</tr>
<tr>
<td>Sales figures from local vendours</td>
<td>Participatory research methods</td>
<td>Data submitted by rehoming centre</td>
</tr>
<tr>
<td>Collaboration between wildlife and dog stakeholders for data collection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

View Summary of Recommendations  Return to Dashboard
Physical Health Indicators

**Recommended indicator - Body condition score**

Body condition can be scored through observation alone, without the need for physical examination of the dog and hence is relatively safe and quick to conduct. The scores are awarded on the basis of body fat coverage and not on coat health or injuries. Body condition can range from emaciated to obese (1 – 5); hence it reflects the quantity and quality of food resources and is affected by concurrent underlying conditions such as disease and parasitic load. Several studies have shown an increase in body condition score following interventions that included surgical neutering and/or basic veterinary care (e.g., Barley et al., 2012; Stenberg, 2015; Totton et al., 2011; Yoo et al., 2014).

There are several scoring systems available. We recommend a 5-point scoring system (1 = Emaciated; 2 = Thin; 3 = Ideal; 4 = Overweight; 5 = Obese; see Annex A) as this is a quick way to learn and establish good inter-observer reliability (see Section “Increasing and testing observer reliability”). When using body condition score for monitoring, use only the scores for adults and exclude both pups and lactating females. Body condition scores for puppies are different to those of adults, although systems do exist and could be used in addition, as puppies are difficult to observe when surveying and tend to occur in clusters, they provide less reliable data than adults. Females, even if they start in good body condition, may lose condition when lactating. This can be quickly regained when pups are weaned, so their condition is not a reliable reflection of general population health.

The recommended indicator is the percentage of adults (excluding lactating females) with a body condition score of 1 (emaciated). If a very low proportion of the population is already at body condition score 1 it will be difficult to show significant change over time because the level is already very low. Hence, the indicator can instead be the percentage of the population at body condition scores 1 and 2 (emaciated and thin). Note that although only dogs with poor body condition are used as the indicator, all dogs should be scored for body condition, as scoring is more likely to be subconsciously skewed when only focusing on a proportion of the population.

This indicator can be measured through street surveys. With this method of measurement, the indicator will reflect the welfare of the roaming dog population. Alternatively, body condition score data can be collected from dogs as they pass through an intervention (see section on “Clinic records”). With this method of measurement, the indicator will reflect the welfare of the population accessed by the intervention; this will be owned dogs if the intervention encourages owners to bring their animals to the clinics, representing a select subset of dogs which may have a different body condition to the general dog population.

**Annex E – Sample Questionnaire**

**Impact 1: Improve Dog Welfare (Animal Based Indicators)**

**Impact 1: Improve Dog Welfare**

**Physical Health Indicators**

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**BCS 1 Emaciated**

- Ribs, backbone, pelvic bones visible from a distance. Check each bone.
- Obvious waist and abdominal tuck.
- No body fat.

![Image of a dog in emaciated condition]
7 Methods of Measurement

1. Questionnaire surveys
2. Participatory research methods
3. Street surveys
4. Secondary sources of information
5. Clinic records
6. Behavioural observation
7. Street surveys and questionnaires for vaccination coverage
Summary

- Roaming dog populations can have poor welfare and cause social, economic and public health issues, if not effectively managed.
- DPM requires a multi stakeholder, tailored approach.
- Information, including an online DPM impact assessment tools, is available from the ICAM coalition.
- Veterinary professionals are best equipped to take an effective leadership role to ensure the welfare of all dogs in a community.

www.icam-coalition.org
Works in Romania in conjunction with:

- Save the Dogs (Cernavodo)
- Associatia Milioane de Prieteni (AMP) Brașov
- Autoritatea Națională Sanitară Veterinară și pentru Siguranța Alimentelor (ANSVSA)

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