Evolution of the Human-Dog Relationship in the World over the last 50 Years.
Structure of Presentation

• Introductory Comments
  • How I got into the topic
  • The challenge of collecting and presenting data

• Trends in the USA

• Global Dog Numbers

• Longer-term data sets
  • Jaipur
  • Costa Rica

• Conclusions
• First started investigating pet populations and “overpopulation” in early 1980s. Over next 38 years, have been constantly surprised by lack of knowledge of dog and cat demographics in the movement but, even more, by the apparent disinterest in demographic data.

• I have been pushing the importance of data collection and analysis for more than three decades but with limited success or impact (but more optimistic?).

• Data collection and analysis is essential:-
  • To establish the scope of the issue and the costs of any intervention;
  • To measure outcomes and determine levels of success
  • To persuade municipal and government entities to support successful projects
Trends in the USA

• In the USA, 25% of dogs in 1960s were estimated to be “homeless” street dogs (R Schneider, UC Davis, 1975).

• These “street” dogs have largely disappeared today (level of control & care has increased dramatically).

• Shelter euthanasia of “unwanted” dogs dropped from around 35-40 per 1,000 people in 1973 to 2 in 2018 (data from multiple sources).
Trends in the USA (1894-2018)

- 114 years of shelter dog intake in New York City
- For 85 years, no obvious trend.
- From 1975, huge decline in shelter dog intake.
- In 1973, USA-wide “panic” over unwanted pets.
- From 1974 – LES launch

NYC Shelter Dog Intake/1,000

1880 1900 1920 1940 1960 1980 2000 2020 2040

1890-1975: No obvious intake trend

1975-2018: Huge decline in intake
Trends in the USA – 1975 onwards.

- Shelter intake & euthanasia trends
- In chart below, dog intake was 4.75 m in 2010 and dropped to 4.15 m in 2018.

Data in above chart from multiple sources and in left chart from PetPoint.
Trends in the USA – 1975 onwards.

• Proportion of pet dogs under 1 year of age in USA has dropped from 20% in 1986 to 10% in 2016. (Chart on right)

• In chart below, veterinarians in small animal practice grown from 50% in 1966 to 75% today. (Chart below)

Data in left chart from AVMA website and NAS Veterinary Manpower reports and in above chart from AVMA surveys.
Global Dog Populations Today
US Dog Population Estimates

- Considerable variation among four national US surveys of PET populations – How good are the numbers being used?

From AVMA 2016 Survey and K Bruillard, Washington Post, 2019
Dog Populations

- Internationally, the number of dogs per 1,000 humans (not per sqkm) varies regionally over a ten-fold range & 30-fold by country.

- % of street dogs varies from close to zero in N America & W Europe to over 90% in Africa.

Data from variety of sources
Roaming Dog Populations - %s

- % of street dogs varies from close to zero in N America & W Europe to over 90% in Africa.
- Very basically – dog welfare organizations are seeking to move the bars on the right to be similar to the bars on the left.

Data from variety of sources
“Pet” Dogs Per 1,000 People

Mean = 110.4 pet dogs/1,000 people
N = 40 countries
2013 Euromonitor
Jaipur Data
One of very few long-term projects
Jaipur Data – Project running from 1995-2019

• Roaming dog population & sterilization % over time.

Jaipur - Roaming Dog Numbers

1976 point from Maheshwari & Sharma, 1978; remaining data from J Reece & report by L Hiby to WSPA (2007)
Jaipur Index Dog Counts

- Index route surveys carried out from 1997 through 2019. But initially done at different times of year. Puppies on the streets January through April. Very few puppies during September through December. Leads to two different trend lines with Oct-Dec numbers lower. Note that numbers are trending upwards from 2014 onwards.

Data from J Reece
Costa Rica Developments
AHPPA Shelter Numbers

• AHPPA taken over in 1991 – decrepit bldgs & a few rusty cages.

• Began reporting shelter intake & outcome data in 2006. Shelter budget (60-80% consists of vet fees) increased from $150K in 1999 to $500K in 2018.

• Incr. in anmls recvd. In 2016 because govt. bringing rescued anmls

<table>
<thead>
<tr>
<th>Year</th>
<th>Ntrd Area Animals</th>
<th>Neutered Outreach</th>
<th>Veterinary Consults</th>
<th>Animals Received</th>
<th>Animals Adopted</th>
<th>Euthanized</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>10,179</td>
<td>379</td>
<td>3,380</td>
<td>5,475</td>
<td>4,108</td>
<td>1,200</td>
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<tr>
<td>2007</td>
<td>10,815</td>
<td>287</td>
<td>2,878</td>
<td>5,201</td>
<td>3,758</td>
<td>1,440</td>
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<tr>
<td>2008</td>
<td>9,230</td>
<td>318</td>
<td>3,118</td>
<td>1,938</td>
<td>1,025</td>
<td>875</td>
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<td>2009</td>
<td>7,975</td>
<td>984</td>
<td>4,733</td>
<td>2,035</td>
<td>1,798</td>
<td>227</td>
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<tr>
<td>2010</td>
<td>5,770</td>
<td>1,060</td>
<td>3,672</td>
<td>1,993</td>
<td>1,668</td>
<td>303</td>
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<tr>
<td>2011</td>
<td>4,023</td>
<td>2,301</td>
<td>4,902</td>
<td>2,322</td>
<td>1,899</td>
<td>423</td>
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<tr>
<td>2012</td>
<td>5,096</td>
<td>4,300</td>
<td>3,724</td>
<td>2,980</td>
<td>2,306</td>
<td>679</td>
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<tr>
<td>2013</td>
<td>5,517</td>
<td>5,873</td>
<td>5,013</td>
<td>2,477</td>
<td>2,325</td>
<td>152</td>
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<tr>
<td>2014</td>
<td>9,480</td>
<td>4,530</td>
<td>3,770</td>
<td>2,018</td>
<td>1,825</td>
<td>193</td>
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<tr>
<td>2015</td>
<td>10,310</td>
<td>4,701</td>
<td>4,025</td>
<td>2,405</td>
<td>2,380</td>
<td>25</td>
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<tr>
<td>2016</td>
<td>11,135</td>
<td>7,853</td>
<td>4,605</td>
<td>4,760</td>
<td>4,000</td>
<td>243</td>
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<tr>
<td>2017</td>
<td>14,125</td>
<td>8539</td>
<td>5,246</td>
<td>4,390</td>
<td>4,104</td>
<td>90</td>
</tr>
<tr>
<td>2018</td>
<td>15,326</td>
<td>5,655</td>
<td>9,179</td>
<td>4,137</td>
<td>5,007</td>
<td>307</td>
</tr>
</tbody>
</table>
**WSPA Survey Data, 2003 & 2011**

- WSPA surveyed central valley area around San Jose – 2.5 million people (50% of popln).
- The changes in human behavior in just 8 years are huge.
- Evidence that changes are continuing.

<table>
<thead>
<tr>
<th>Question</th>
<th>2003 (% respondents)</th>
<th>2011 (% respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you Own Dogs aged 6 or higher?</td>
<td>17.5%</td>
<td>27.6%</td>
</tr>
<tr>
<td>Does your dog sleep inside at night?</td>
<td>26.5%</td>
<td>54.2%</td>
</tr>
<tr>
<td>Are dogs permitted on street without supervision?</td>
<td>34.0%</td>
<td>17.0%</td>
</tr>
<tr>
<td>Do you take your dog to a veterinarian at least once a year?</td>
<td>61.0%</td>
<td>80.0%</td>
</tr>
</tbody>
</table>

Data from two survey reports, WSPA 2003 and WSPA 2011
Costa Rica Veterinary Profession

- One way of tracking conversion from “homeless” to “homed” animals is via veterinarian numbers.
- In Malaysia, first small animal hospital opened in 1980/1. In 2015, more than 300 practices.
- In India, big ABC and rabies vaccine projects supported rise in number of ABC-experienced vet surgeons.

Data from Colegio Veterinarios de Costa Rica
A Modest Proposal – A Global Dog Campaign (GDC)

• The GDC Aims
  • Raise global awareness of roaming dog welfare
  • Recruit & raise capacity of implementing partners (IPs) to complete surveys & report on dog populations and sterilizations
  • Increase the number of dog sterilizations
  • Reduce human and dog disease and injury
  • Improved human-dog interactions
  • Establish the GDC website to serve as a collaboration, learning and adapting center and increase the use of database to spread solutions globally

• International APOs are now spending $30 million a year on dog welfare projects & rabies treatment programs cost an estimated $2 billion a year in direct costs!
Conclusions

• Talks with attendees here are very encouraging – many interesting projects springing up around the world.

• This century, the body of academic literature on dog demographics and humane dog management is growing rapidly.

• The signs that human-dog interactions are becoming more harmonious (add your own definition) are everywhere.

• Very much looking forward to the 4th Humane Dog Management Conference!